BHARATI VIDYAPEETH'S
COLLEGE OF ENGINEERING, KOLHAPUR

Accredited by NAAC With 'A' Grade
Approved by AICTE, New Delhi & Affiliated to Shivaji University, Kolhapur
Near Chitranagari, Kolhapur - 416013 (MS)
DTE INSTITUTE CODE : EN-6288
Tel.No.: (0231) 2638893, 2638894, Fax : 2636050
Web : http://coekolhapur.bharatividyapeeth.edu E- mail : coekolhapur@bharatividyapeeth.edu

FOUNDER CHANCELLOR
Dr. Patangrao Kadam
M.A., LL. B., Ph. D.

PRINCIPAL
Dr. Vijay Ghorpade
M.E., Ph. D. (Computer)

NAAC SSR CYCLE- 2

Criterion 3	
Key Indicator 3.3	**Research Publications and Awards**
3.3.1 Number of research papers published per teacher in the Journals notified on UGC care list during the last five years	

BHARATI VIDYAPEETH'S
COLLEGE OF ENGINEERING, KOLHAPUR

Accredited by NAAC With 'A' Grade
Approved by AICTE, New Delhi & Affiliated to Shivaji University, Kolhapur
Near Chitranagari, Kolhapur - 416013 (MS)
DTE INSTITUTE CODE : EN-6288
Tel.No.: (0231) 2638893, 2638894, Fax : 2636050
Web : http://coekolhapur.bharatividyapeeth.edu E- mail : coekolhapur@bharatividyapeeth.edu

FOUNDER CHANCELLOR
Dr. Patangrao Kadam
M.A., LL. B., Ph. D.

PRINCIPAL
Dr. Vijay Ghorpade
M.E., Ph. D. (Computer)

Documents Uploaded

Sr No.	Title of paper	Name of journal	Page No.
2022			
1	Effects of stabilization on structures and properties of Electrospun Polyacrylonitrile based carbon nanofibers as a binder free electrode for supercapacitor application	Materials Today: Proceedings	14
2	Electrospun 1D TiO2 nanofibers for dye-sensitized solar cell application	Materials Today: Proceedings	16
3	Binder-Free Synthesis of Nanostructured Amorphous Cobalt Phosphate for Resistive Memory and Artificial Synaptic Device Applications	ACS Applied Electronic Materials	18
4	Analysis and Prediction of Hydrothermally Synthesized ZnO-Based Dye-Sensitized Solar Cell Properties Using Statistical and Machine-Learning Techniques	ACS Omega	20

16	Identification,classification and grading of plant leaf disease using CBIR and K-means clustering	Journal of emerging technologies and innovation research(JETIR)	43
17	Employing Energy and Statistical Features for Automatic Diagnosis of Voice Disorders	National Library of Medicine	45
18	Detection and qualification of blood cells using image processing	International Research Journal of Modernization in Engineering Technology and Science	47
19	Human IRIS Pattern recognition and matching system for exceptional security identification	International Research Journal of Modernization in Engineering Technology and Science	49
20	Diet modelling using nutritional requirement analysis	International Research Journal of Modernization in Engineering Technology and Science	50
21	Visualising and forcasting stock index using analytical tools	International Journal of Research and analytical reviews(IJRAR)	51
22	ALPHA:The Desktop Assistant	International Research Journal of Modernization in Engineering Technology and Science	53
23	E-training and placement management system	International Research Journal of Modernization in Engineering Technology and Science	55
24	Seismic Behaviour and Design of RC Shear Wall using ETABS software	International Journal for Research in	56

		Applied Science & Engineering Technology (IJRASET	
25	Behaviour of Compressive Strength of M20 Grade Concrete using Ruber Crumb, Magnetized and Normal Water	International Journal of Innovative Research in Technology	58
26	A Literature Review on Use of Rice Husk Ash As Cementation Material	International Journal For Research in Applied Science and Engineering Technology	60
27	A Literature Review on Beam Column Joints with Different Loading Condition and Methods of Strengthening	International Journal For Research in Applied Science and Engineering Technology	61
28	Identification of flood control measures for Kolhapur city	International Journal of Scientific Research in Engineering and Management (IJSREM)	62
29	Road Intersection re-design	International Journal of scientific research in Enginering and management	64
30	Study of Public Attitude towards household waste management in selected rural area in kolhapur district	International Journal of scientific research in Enginering and management	65
31	An Evaluation of Road Safety Performance for Selected Road Stretches in Kolhapur City	International Journal for Research in Applied Science & Engineering Technology	66
32	Performance Evaluation of Laboratory Scale Vegetated Vermifilter for Domestic Wastewater: Case study of Kolhapur	International Journal of scientific research in Enginering and management	68
33	To Study Rehabilitation of Old Elevated Water Tank and to Generate Non-Conventional Energy	International Journal for Research in Applied Science & Engineering	69

		Technology	
34	Feasibility Study of Zero Discharge Concept in Sugar Industry After Anaerobic Treatment: Case Study of Solapur	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	70
35	Xgraph & Gnuplot Implementation of AODV & DSDV Routing Protocol in MANET Using NS2	International journal of creative research thoughts(IJCRT)	71
36	Trends in the Interpretation of Popular Fiction	International Journal of Applied and Advance Research	73
37	Studies of Physico-Chemical Parameters to Access the Water Quality of Sonhira Lake (Chinchani) For Agricultural Farming Purpose in Kadegaon Tehsil (Sangli District)	International Journal of Innovative Research in Technology	75
38	The Role of green chemistry and its applications in day to day life	International journal of multidisciplinary educational research	77
39	Design and Prototype of the Electromagnetic Engine	International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET)	79
40	Design and analysis of front axle using Solidworks simulation	International Research Journal of Engineering and Technology (IRJET)	81
41	Design and Development of Humidity Controller for Prevention of Microbiological Spoilage in Vegetables	International Research Journal of Engineering and Technology (IRJET)	83
42	Comparative Study Of Performance Of 15% Neem Biodiesel On Single Cylinder Computerized Diesel Engine For Different Compression Ratio and Load	IJRAR-(International Journal Of Research And Analytical Reviews)	84
43	Nano fluids ,micro-lubrications and machining process optimizations –a review	Manufacturing Review	86

44	Challenges of Energy and Environmental Sustainability	Neuro Quantology	88
45	A comparative study of project risk management with risk breakdown structure (RBS): a case of commercial construction in India	International Journal of Construction Management	89
2021			
46	A Review on “Torsional Behavior of Rectangular Reinforced Concrete Beams with Encased Welded Wire Mesh Fiber	Reliability: Theory & Applications	91
47	Geographic Multipath Routing based on Triangle Link Quality Metric with Minimum Inter-path Interference for Wireless Multimedia Sensor Networks	Journal of King Saud University - Computer and Information Sciences	93
48	MQL Machining with Nano fluid – A Review	Journal of Manufacturing Review	95
49	Tourist Place Recommendation System Using Machine Learning	International Journal of Innovative Reasearch in Science Engineering Technology	97
50	Response Spectrum Analysis of G+ 15 Story Building with and without Base Isolation System	International Journal for Research in Applied Science & Engineering Technology	99
51	Signal Processing Techniques used in Digital Hearing-Aid Devices: A Review	The IUP jounal of Electrical and Electronics Engineering	101
52	Design Optimization of Frame of Mechanical Press Machine	Asian Review of Mechanical Engineering	103
53	Analysis of Surface Roughness and Cutting Force under MQL Turning Using Nano Fluids	Journal of Materials Today Proceeding	105
54	Analysis of effect of Cutting Parameters on Surface Roughness and Cutting Force during Turning of Aluminum Alloy (AlSi5Cu3)	Journal of Manufacturing Technology Today (CMTI), Benglore	107

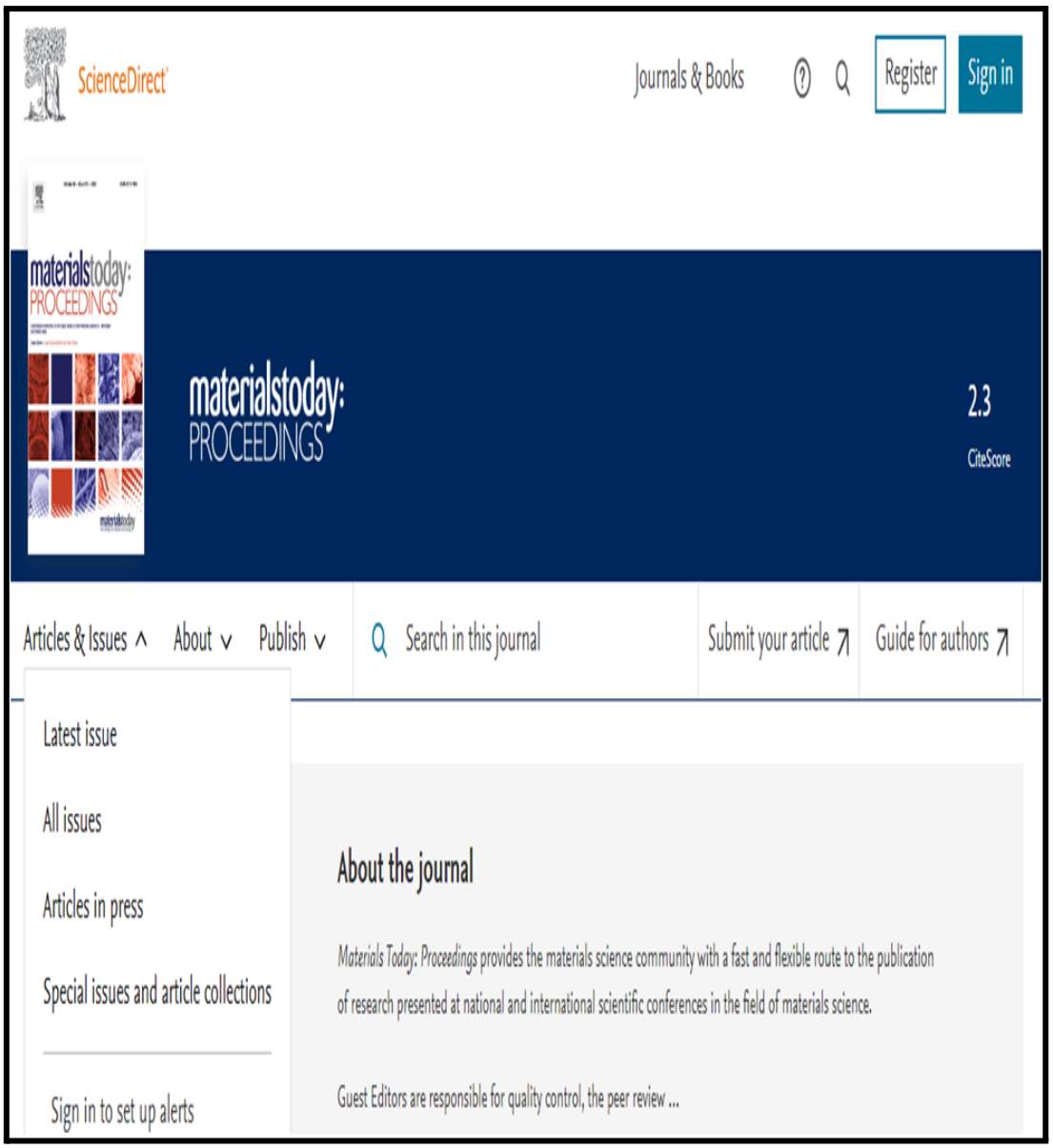
55	Effect and Causes of Imbalance in Operating Mix on Shot Blasting Process and Suggested Remedies	International Research Journal of Engineering and Technology (IRJET)	109
56	Hydrocarbon Emission Analysis of Single Cylinder Diesel Engine for Acacia Nilotica (Babul Seed) Biodiese	International Research Journal of Engineering and Technology (IRJET)	111
57	Analytical study of break thermal efficiancy of single cylinder computrisized diesel engine for acacia nilotica(babul seed)biodiesel	International Journal of Research and Analytical Reviews (IJRAR)	112
2020			
58	Health care system to built secure paitient record by using block chain and artificial intellegence	International Journal of Advanced Science and Technology	113
59	FEA modeling and prediction of surface roughness of aluminum alloy (LM4) during turning process	Manufacturing Technology Today	115
60	Solar Photovoltaic (PV) with STATCOM feature to improve Power Quality for distribution with MATLAB tool	International Journal of Advanced Science & Technology (IJAST)	117
61	PV Solar STATCOM to Improve Power Quality in Distribution System	TEST Engineering & Management	119
62	Internet of Things Enabled Fire Resilient Building Automation System using AI Approaches	International Journal of Creative research thoughts	121
63	A trust management model based on NSGA-II in mobile grid system	International Journal of Knowledge-based and Intelligent Engineering Systems,	123
64	Predication and Analysis of Epileptic Seizure Neurological Disorder using Intracranial Electroencephalography (iEEG)	WSEAS TRANSACTIONS on SIGNAL PROCESSING	125
65	Classification and Severity Measurement of Epileptic Seizure Using Intracranial Electroencephalogram (iEEG)	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	127

66	Reconfigurable Filter Design and testing with ISTS standard for proposed Hearing Aid application	The IUP Journal of Telecommunications	129
67	Review on the Effect of Geometrical Parameter on Heat Transfer Performance for LED	Asian Review of Mechanical Engineering	131
68	Production Planning Control of Bottlenecks by Operation Shifting in Workplace	International Journal OF Innovative Research in Science Engineering &Technology	133
69	Design and analysis of single plate clutch by mathematical modeling and simulation	International Journal of Advance Research and Innovation	135
70	Design and analysis of single plate clutch using Ansys	International Journal of vehicle mechanics ,mechanics & transportation system	137
2019			
71	Health care system to built secure patient record by using block chain and artificial intellegence	International Journal of Advanced Science and Techno logygy (Singapore)	139
72	Convolutional Neural Networks for Leaf Image-Based Plant Disease Classification	Interntaional Journal of Artifictial Intelligence	141
73	Identification of plant diseases using convolution neural networks	International Journal of Information Technology	143
74	Soybean leaf diseases detection and severity measurement using multiclass SVM KNN classifier	Interntaional Journal of Electrical and Computer Engineering	145
75	A Fuzzy Lattice System to Trust Management in Mobile Grid	International Journal of Innovative Technology and Exploring Engineering	147
76	Application Check pointing Technique for Self-Healing From Failures in Mobile Grid Computing	International Journal of Grid and High Performance Computing	149

87	Comparative Study of LBP, LLBP and DCLBP Methods for Palm Vein Recognition	International Journal of Research and Analytical Reviews (IJRAR)	170
88	Recent advances in palm vein recognition using minutiae based and texture based feature extraction methods	International Journal for Research in Applied Science and Engineering Technology (IJRASET)	173
89	Palm Vein Recognition Based on Local Binary Pattern and Uniform Local Binary Pattern	International Journal of Engineering Development and Research	174
90	Synthesis of TiO2Nanofibers for Solar Cellsand Their Analysis UsingStatisticalTool-TaguchiMethod	International Journal for Research in Engineering Application & Management (IJREAM)	175
91	Effect of turning process parameter on surface roughness using Inconel as a material	International journal of scientific engineering and research	177
92	Dynamic Analysis of Bumper Beam	International Research Journal of Engineering and Technology (IRJET)	179
93	Study and analysis of bitumen mixture incorporating with waste foundry sand	International Journal for research in applied science and engineering technology	181
94	A review on conceptual model of in basin plant to increase self purification of river	International Journal for research in applied science and engineering technology	183
95	Effect of zone factor on seismic parameters of RC building	International Journal for research and development in technology	184

96	A Study of Physico-Chemical Characteristics of Jayanti Nalla Water along with it's Tributaries with Special Emphasis on Quality of Panchganga River	International journal for research in applied science and engineering technology	186
97	Structural Analysis of Steel Transmission Tower for different Risk Coefficients-A Case Study	International journal for research in applied science and engineering technology	187
98	A Literature Review on Various Types of Materials used for Full/U-Shaped Beam Jacketing Subjected to Pure Torsion	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	188
2018			
99	AES-VR: A New Approach for Cloud Data Confidentiality	International Journal of Computer Technology and Applications	190
100	GCM-AES-VR : A Scheme for Cloud Data Confidentiality and Authenticity	International Journal of Computer Sciences and Engineering	192
101	Efficient resource allocation scheme for on-the-fly computing based mobile grids	International Journal of Information Technology	194
102	Smart Guide – an approach to the Smart Museum using Android	International Research Journal of Engineering and Technology	196
103	GROCEROUS: A Web based solution for daily grocery needs	International Journal of Advanced Research in Science and Engineering	198
104	A step towards Smart Museum using Smart Campus Guide	International Journal of Advanced Research in Science and Engineering	200
105	Expert Non-Expert Classifier	International Journal of Latest Engineering Research and Applications	201

106	Responsiveness of HEIs to industrial revolution 4.0	International journal of advance and innovative research	203
107	Bridge Condition monitoring system using ZIGBEE	International journal for research and development in technology	205
108	Content Based Retinal Image Retrieval Using Lifting Wavelet Transform for Classification of Retinal Fundus Images	International Journal of Electrical Electronics & Computer Science Engineering (IJEECSE)	207
109	Early Detection of High Blood Pressure and Diabetic Retinopathy on Retinal Fundus Images Using CBRIR Based on Lifting Wavelets	International Journal of Innovation in Engineering Research and Technology [IJIERT]	208
110	Prediction of Surface Roughness and Cutting Force under MQL Turning of AISI 4340 with Nano Fluid by using Response Surface Methodology	Journal of Manufacturing Review	210
111	Modelling and Development of Chaff cutter machine	International Research Journal of Engineering and Technology (IRJET)	212
112	Study of Steam Operated Jaggery Making System	International Journal for Scientific Research & Development	214
113	Development groundnut pod seperator	International Research Journal of Engineering and Technology	216
114	Circular Economy and Food Waste	Journal of Emerging Technologies and Innovative Research	218


ScienceDirect
Journals & Books
Register
Sign in
materialstoday: PROCEEDINGS
2.3
CiteScore
Articles & Issues
About
Publish
Search in this journal
Submit your article
Guide for authors
Latest issue
All issues
Articles in press
Special issues and article collections
Sign in to set up alerts
About the journal
Materials Today: Proceedings provides the materials science community with a fast and flexible route to the publication of research presented at national and international scientific conferences in the field of materials science.
Guest Editors are responsible for quality control, the peer review ...

Effects of stabilization on structures and properties of Electrospun Polyacrylonitrile based carbon nanofibers as a binder free electrode for supercapacitor application

Sumit Dubal [a], Sachin Chavan [a], Pradeep Jadhav [a], Sunil Kadam [b], Sachin Dhotre [c]

Show more

+ Add to Mendeley Share Cite

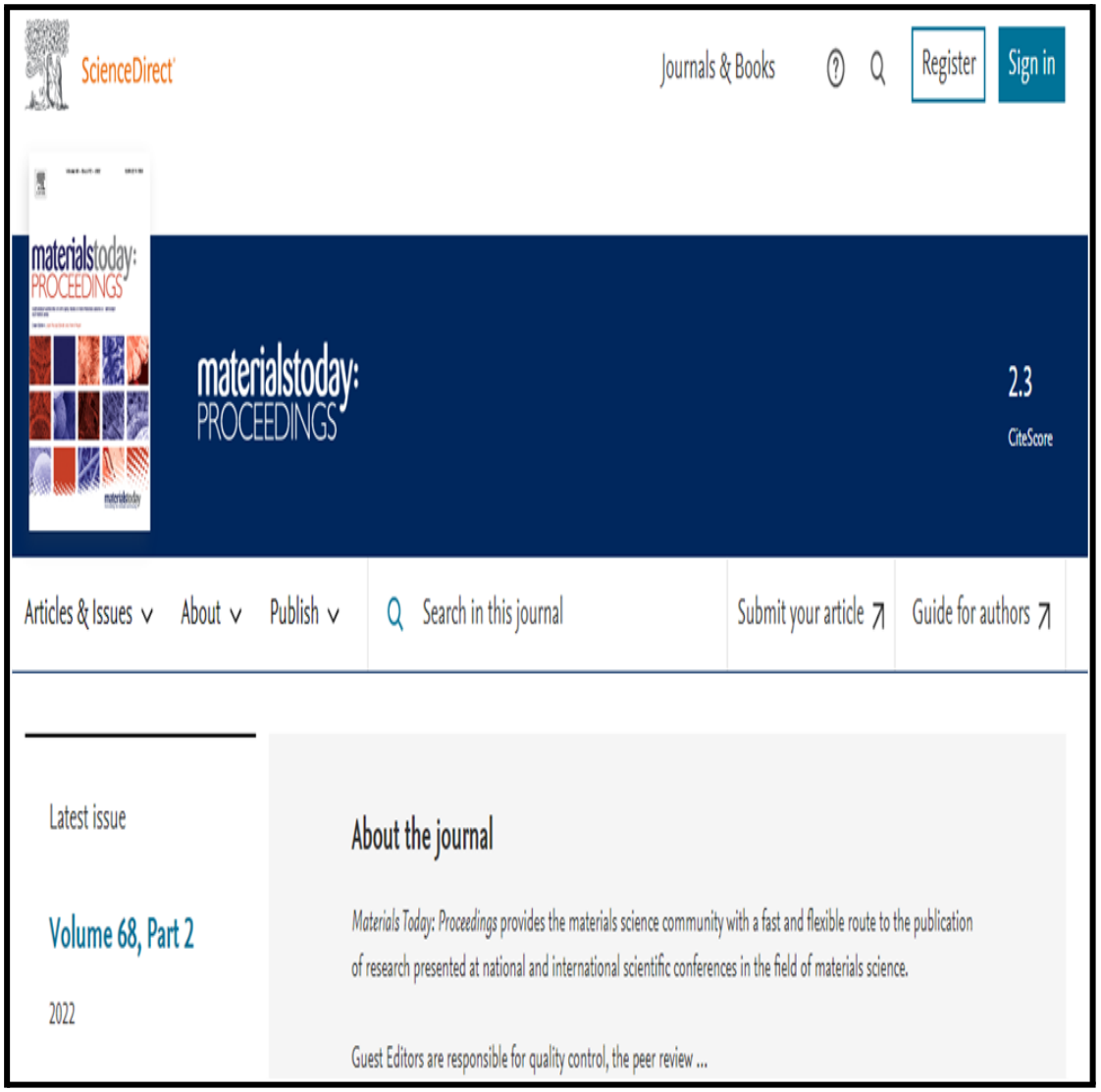
https://doi.org/10.1016/j.matpr.2022.07.250

Abstract

Electrospun nanofibers were produced with Polyacrylonitrile (PAN) precursor using the Electrospinning technique. Stabilization is an important heat treatment process before carbonization. A total of 2 samples were considered for the carbonization process. Electrospun Pure PAN nanofiber mat was used with aluminium foil substrate for the heat treatment process in a tube furnace. The first sample was stabilized at 290 °C temperature at a 2 °C/min heating rate and constant heating for 3 h. The second sample was directly used for carbonization without stabilization. Fibers were carbonized at 500 °C under a nitrogen atmosphere with a dwell time of 1 h. Scanning electron microscopy (SEM) and Fourier transform infrared spectroscopy (FTIR) were used to study the influence on structures and properties of carbon fibers of both samples. To investigate elemental concentration in samples Energy-dispersive X-ray spectroscopy (EDX) was used. EDX results showed 45 % and 60 % carbon atom non stabilized and stabilized carbon nanofibers respectively. An SEM result reveals a drastic fiber diameter reduction in a sample that was not stabilized before carbonization as compared with the sample which was stabilized before the carbonization process. FTIR results showed the complete conversion of C ≡N to C═N at a stabilization temperature of 290 °C. Also, FTIR results reveal that 500 °C temperature is too low for complete carbonization as some peaks are still there after the carbonization. Low temperature carbonization is necessary to avoid the melting of aluminium foil substrate during the carbonization process. Further CNF mat will be peeled off from the substrate and will be used directly as electrode material for electrochemical characterization.

Keywords

Electrospinning; Polyacrylonitrile; Nanofibers; Carbon nanofibers


ScienceDirect
Journals & Books
Register
Sign in
materialstoday: PROCEEDINGS
materialstoday: PROCEEDINGS
2.3
CiteScore
Articles & Issues
About
Publish
Search in this journal
Submit your article
Guide for authors
Latest issue
Volume 68, Part 2
2022
About the journal
Materials Today: Proceedings provides the materials science community with a fast and flexible route to the publication of research presented at national and international scientific conferences in the field of materials science.
Guest Editors are responsible for quality control, the peer review ...

materialstoday: PROCEEDINGS

Volume 65, Part 1, 2022, Pages 106-110

Electrospun 1D TiO_2 nanofibers for dye-sensitized solar cell application

Sunil J. Kadam [a], Krantiveer V. More [b], Sachin S. Chavan [c], Tukaram D. Dongale [d], Sachin M. Shendokar [c]

Show more

+ Add to Mendeley Share Cite

https://doi.org/10.1016/j.matpr.2022.05.166

Abstract

In this work, we have synthesized 1-dimensional (1D) TiO_2 nanofibers (NFs) by using the electrospinning technique for dye-sensitized solar cells (DSSCs) application. The synthesized 1D-TiO_2 NFs were characterized by using UV–Visible spectroscopy, Fourier-transform infrared spectroscopy, X-ray diffraction, field emission scanning electron microscope and energy dispersive spectroscopy techniques. The optimized1D-TiO_2 NFs were used to develop DSSCs using solution-processable techniques. In this work, we have explored the effect of annealing temperature (450 °C and 500 °C) and dyes (N719 and N350) on the solar cell properties. Our results asserted that the low-temperature annealing process provides good efficiency and N719 dye performs better than N350 dye. In addition to this, the diameter of the TiO_2 NFs was varied to investigates its effect on different solar cell properties. The present investigation is helpful to optimize the NFs based DSSCs.

Previous article in issue Next article in issue

Keywords

TiO_2; Dye synthesized solar cell; Electrospinning; 1D Nanofibers; N719; N350


ACS APPLIED
ELECTRONIC MATERIALS
April 2022
Volume 4
Number 4
pubs.acs.org/acsaelm
ACS Publications
Most Trusted. Most Cited. Most Read.
www.acs.org

RETURN TO ISSUE | ‹ PREV ARTICLE NEXT ›

Binder-Free Synthesis of Nanostructured Amorphous Cobalt Phosphate for Resistive Memory and Artificial Synaptic Device Applications

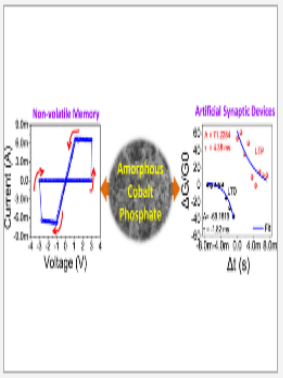
Pranav K. Katkar, Navnath S. Padalkar, Dhananjay D. Kumbhar, Aravind H. Patil, Santosh S. Sutar, Sunil J. Kadam, Rajanish K. Kamat, Seung-Hyun Chun, and Tukaram D. Dongale*

Cite this: ACS Appl. Electron. Mater. 2022, 4, 4, 1852−1863
Publication Date: March 30, 2022
https://doi.org/10.1021/acsaelm.2c00085

ACS Applied Electronic Materials

Abstract

The rise of artificial intelligence and machine learning demands versatile electronic devices for memory and brain-inspired computing applications. The electronic materials are the backbones of these applications. Considering this, a functional $Co_x(PO_4)_2$ nanomaterial was synthesized for resistive memory and neuromorphic computing applications. The synthesized nanomaterial was well characterized by using X-ray diffraction, Fourier transform infrared spectroscopy, field emission-scanning electron microscopy, and X-ray photoelectron spectroscopy. The fabricated $Ag/Co_x(PO_4)_2/ITO$ device shows bipolar resistive switching and memristive properties. The SET and RESET voltages were analyzed by using different statistical measures, and their distribution was studied by using the Weibull technique. The results suggested that the SET voltages were more uniformly distributed than the RESET voltage. The switching nonlinearity was modeled and predicted by using Holt's exponential smoothing-based statistical time series analysis method. In the case of nonvolatile memory tests, the device shows good endurance (10^3 cycles) and memory retention (3×10^4 s) with excellent memory window (1.7×10^3) properties. Moreover, the device can mimic the potentiation–depression and spike-timing-dependent plasticity-based Hebbian learning rules, suggesting $Co_x(PO_4)_2$ is a potential nanomaterial for the fabrication of artificial synapse. The detailed analysis of electrical results suggested that the space-charge-limited current-based charge transport was responsible for the device conduction, whereas the formation and rupture of conductive filament(s) were responsible for the resistive switching in the $Ag/Co_x(PO_4)_2/ITO$ memristive device. The results of the present investigation suggested that the $Co_x(PO_4)_2$ nanomaterial is a potential candidate for resistive memory and brain-inspired computing applications



KEYWORDS: cobalt phosphate, resistive switching, memristive device, time series analysis, synaptic device, neuromorphic computing


ACS OMEGA

Editors: Krishna Ganesh, Deqing Zhang
Editors & Editorial Board

Impact Factor 2021: 4.132 | Citations 2021: 41,528 | CiteScore 2021: 5.2

List of Issues | ASAP Articles | Current Issue

ASAP ARTICLES ASAP Articles are edited and published online ahead of issue. See all articles.

Heat Generation and Degradation Mechanism of Lithium-Ion Batteries during High-Temperature Aging

Wei Shen, ... and Guangxu Zhang*

December 2, 2022

Study of a High-Index Dielectric Non-Hermitian Metasurface and Its Application in Holograms

Xiangrong Wu, ... and Xing Zhu

December 2, 2022

Epoxy-Based Catalyst-Free Self-Healing Elastomers at Room Temperature Employing Aromati
Disulfide and Hydrogen Bonds

Geonwoo Kim, ... and Gun Jin Yun*

ACS OMEGA

http://pubs.acs.org/journal/acsodf

Article

Analysis and Prediction of Hydrothermally Synthesized ZnO-Based Dye-Sensitized Solar Cell Properties Using Statistical and Machine-Learning Techniques

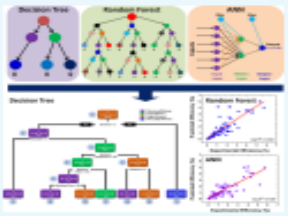
Santosh S. Sutar, Suvarna M. Patil, Sunil J. Kadam, Rajanish K. Kamat, Deok-kee Kim,* and Tukaram D. Dongale*

Cite This: ACS Omega 2021, 6, 29982−29992

Read Online

ACCESS | Metrics & More | Article Recommendations | Supporting Information

ABSTRACT: Dye-sensitized solar cells (DSSCs) are one of the most versatile and low-cost solar cells. However, DSSCs are prone to low power conversion efficiency (PCE) compared to their counterparts, owing to their different synthesis parameters and process conditions. Therefore, designing efficient DSSCs and identifying the parameters that control the PCE of DSSCs are a critical tasks. We have collected data from hydrothermally synthesized DSSCs in the present work, published from 2005 to 2020. In line with publishing trends in the said period, we evaluate ZnO as a popular photoactive material for DSSC applications. We further analyzed the performance of hydrothermally synthesized ZnO DSSCs using different statistical techniques and provided some significant insights. We further applied the machine-learning technique with a decision tree algorithm to understand and discover the possible set of rules and heuristics that govern the morphology of the hydrothermally grown ZnO. In addition, we also employed supervised and unsupervised machine-learning models using conventional decision trees and classification and regression trees, respectively, to identify the dependence of the PCE of ZnO DSSCs on the different synthesis parameters. The reported work also evidences the PCE predictions of the ZnO DSSCs by using random forest and artificial neural network algorithms. The results substantiate that the random forest and artificial neural network algorithms successfully predict the PCE of the ZnO DSSCs with reasonable accuracy. Thus, we present a novel approach of applying statistical analysis and machine-learning algorithms to understand, discover, and predict the performance of DSSCs. We recommend extending the said know-how to other solar cells to identify rules and heuristics and experimentally realize highly efficient solar cells in shrinking manufacturing windows with a cost-effective approach.



1. INTRODUCTION

Machine learning (ML) has made a remarkable impact on the materials science and energy sector by discovering the hidden patterns and heuristics of many materials and devices at lower computational cost and time.[1−3] The new insights provided by the ML models are scientifically and technologically relevant, and they help accelerate the discovery of new materials.[4] For instance, the fabrication of highly efficient solar cells requires in-depth knowledge of physical processes and insights into the experimental procedures. Many variables in the above said experimental procedures compete to have a trade-off affecting the device's performance. Therefore, it is an arduous task for conventional modeling and simulation methods to discover new materials and predict the device properties.[5]

On the other hand, ML uses the black-box approach to discover properties and correlations between physical and chemical parameters which are otherwise unattainable by traditional methods.[6] In ML-assisted solar energy research, most of the time, the data set is created by using density functional theory calculations. However, this approach has very high computational costs, poor scaling, and a homogeneous data set, limiting its effectiveness for general purpose applications.[7] Considering this, designing an ML model based on experimentally available data can become an effective solution, and such approaches have paved the way to outstanding results.[8,9] Dye-sensitized solar cells (DSSCs), the subject for investigation in this research, are considered low-cost and promising solutions to overcome the current energy-related issues.[10] In recent years, the photovoltaic research community has been looking forward to providing highly efficient solar cells based on the DSSC principle. Many researchers are trying hard to achieve this goal. The popularity of DSSCs lies in its low-cost solution-processable synthesis techniques, simple device design, and scale-up possibilities.[11,12] The Scopus database reveals more

Received: August 24, 2021
Accepted: October 15, 2021
Published: October 26, 2021

https://doi.org/10.1021/acsomega.1c04621
ACS Omega 2021, 6, 29982−29992


Journal of Positive School Psychology
CURRENT
ARCHIVES
ABOUT
AUTHOR GUIDELINES
ANNOUNCEMENTS
CONTACT
Search
Journal Information
ISSN: 2717-7564
Frequency: Monthly
Indexing: Scopus , EBSCO
Journal of Positive School Psychology (JPSP)
ISSN: 2717-7564 (Online)
Publication Frequency: Monthly.
Journal of Positive School Psychology (ISSN 2717-7564) published now by ASR Research India is a peer-reviewed journal covering positive psychology and provides an international forum for the science of positive psychology in education and school settings. The JPSP, which is published twelve times a year, is an open-access that publishes research outcomes with significant contributions to the understanding and improvement of the positive psychology of education and services in school settings. The journal encompasses a full range of methodologies and orientations that include educational, cognitive, social, behavioral, preventive, cross-cultural, and developmental perspectives. The JPSP publishes research regarding the education of populations across the life span.
Make a Submission
Scopus
Journal of Positive School Psychology
Q2
Developmental and Educational Psychology
best quartile
SJR 2021

Journal of Positive School Psychology
2022, Vol. 6, No. 6, 6970-6977
http://journalppw.com

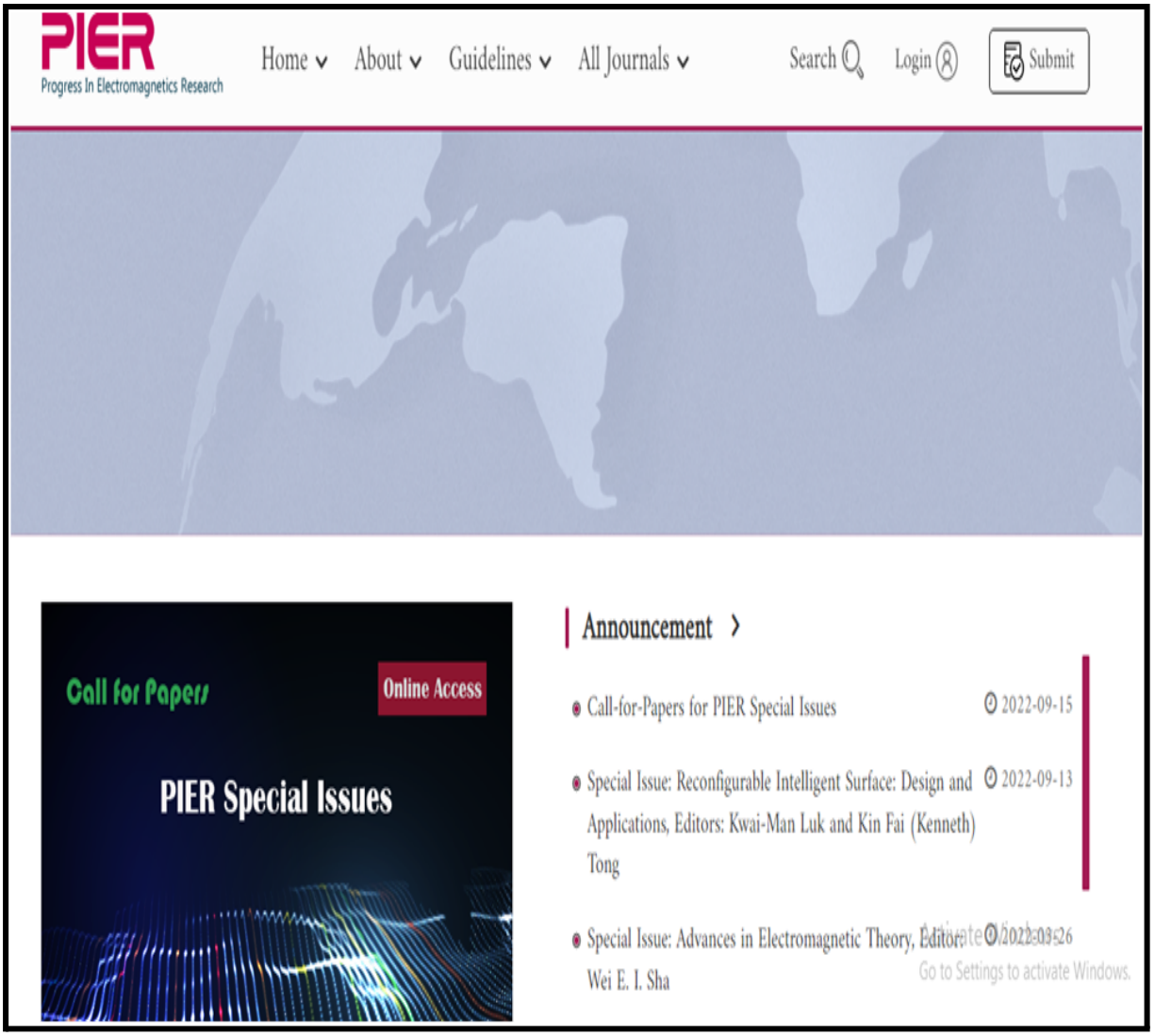
Machine Learning Tool Development And Use In Biological Information Decoding

Sheetalrani R Kawale[1], kamalakar Ravindra Desai[2], Parismita Sarma[3], N. K. Darwante[4], C M Velu[5], Pundru Chandra Shaker Reddy[6]

[1]Assistant Professor, Department of Computer Science, Karnataka State Akkamahadevi Women's University, Vijayapura, Karnataka, India.
[2]Professor, Department of Electronics and Telecommunication, Bharati vidyapeeths college of Engineering Kolhapur, Maharastra, India.
[3]Assistant Professor, Department of Information Technology, Gauhati University,Guwahati, Assam, India.
[4]Associate Professor, Department of Electronics and Telecommunication, Sanjivani College of Engineering, Kopargaon, Affiliated to Savitribai Phule Pune University, Pune, Maharashtra, India.
[5]Professor, Department of CSE, Savertha School of Engineering, Saveetha University, SIMATS, Chennai, Tamilnadu, India.
[6]Associate Professor, School of Computing and Information Technology, REVA University, Bangalore, India,

Abstract

DNA, RNA, and proteins are the main molecules of life, and the varied roles that proteins play determine the phenotypes of living organisms. Since proteins are polymers made up of amino acid molecules, it is crucial to understand their many roles and features in order to comprehend life at the molecular level. Complete protein sequences for many species have been obtained thanks to recent developments in high throughput deep sequencing methods. Experimental approaches to functionally annotating proteins are time-consuming, labor-intensive, and expensive. As a result, only a fraction of the total sequenced proteins have been annotated experimentally. Instead of using experiments to determine how proteins should be categorised, we may utilise machine learning techniques to train computer models using annotated proteins and then use those models to classify freshly sequenced proteins into their respective categories. Significant biological knowledge and computing ability are necessary for using machine learning. Machine learning algorithms, on the other hand, are meant to construct models without any human intervention. However, this is true only for numerical training data sets, since the vast majority of biological data are textual or otherwise qualitative in nature. Specific algorithms are needed to transform biological data into machine readable forms. Therefore, experimentalists rely on computer professionals to create models using machine learning for their data. Due to the need for assistance from computer professionals, the time it takes to generate hypotheses and uncover new information has increased.


PIER
Progress In Electromagnetics Research
Home
About
Guidelines
All Journals
Search
Login
Submit
Call for Papers
Online Access
PIER Special Issues
Announcement
Call-for-Papers for PIER Special Issues
2022-09-15
Special Issue: Reconfigurable Intelligent Surface: Design and Applications, Editors: Kwai-Man Luk and Kin Fai (Kenneth) Tong
2022-09-13
Special Issue: Advances in Electromagnetic Theory, Editor: Wei E. I. Sha
2022-03-26
Go to Settings to activate Windows.

Progress In Electromagnetics Research C, Vol. 120, 27–44, 2022

Design of Tri-Band Textile Fractal Antenna Using Three Different Substrate Materials for Wi-Fi Applications

Asit Kittur* **and Loganathan Balaji**

Abstract—The purpose of this study is to embed an antenna on very thin textile materials. A rectangular Fractal Antenna is chosen for this application. This antenna radiates for three different frequencies viz. 2.4 GHz, 4.2 GHz, and 5.9 GHz. The substrate materials used for the three antennas are Poly Viscous, Poly Cotton, and Linen which are easily available. Instead of using traditional method applying copper plate or copper layer on substrate material, a simple process of pasting carbon conductive ink on substrate materials is used. On each textile antenna above mentioned frequencies are radiated. Performance parameters of all three antennas are simulated and matched with practical results. The optimum antenna having the best result is used for Wi-Fi applications.

1. INTRODUCTION

Wireless communication took tremendous gain in world wars. Today wireless communication is exploited in clinical practice, space science, etc.

Antenna remains a basic building block for wireless technology from last 30 years. For transmitting and receiving electromagnetic signals in wireless communication, antennas are extensively used. Now antenna quality depends upon how well it can receive the electromagnetic waves. Comparatively large aperture antenna detects better signals than smaller aperture. But larger aperture antenna has disadvantage of having complex and bulky engineering. The way to overcome this challenge is to implement low profile antenna.

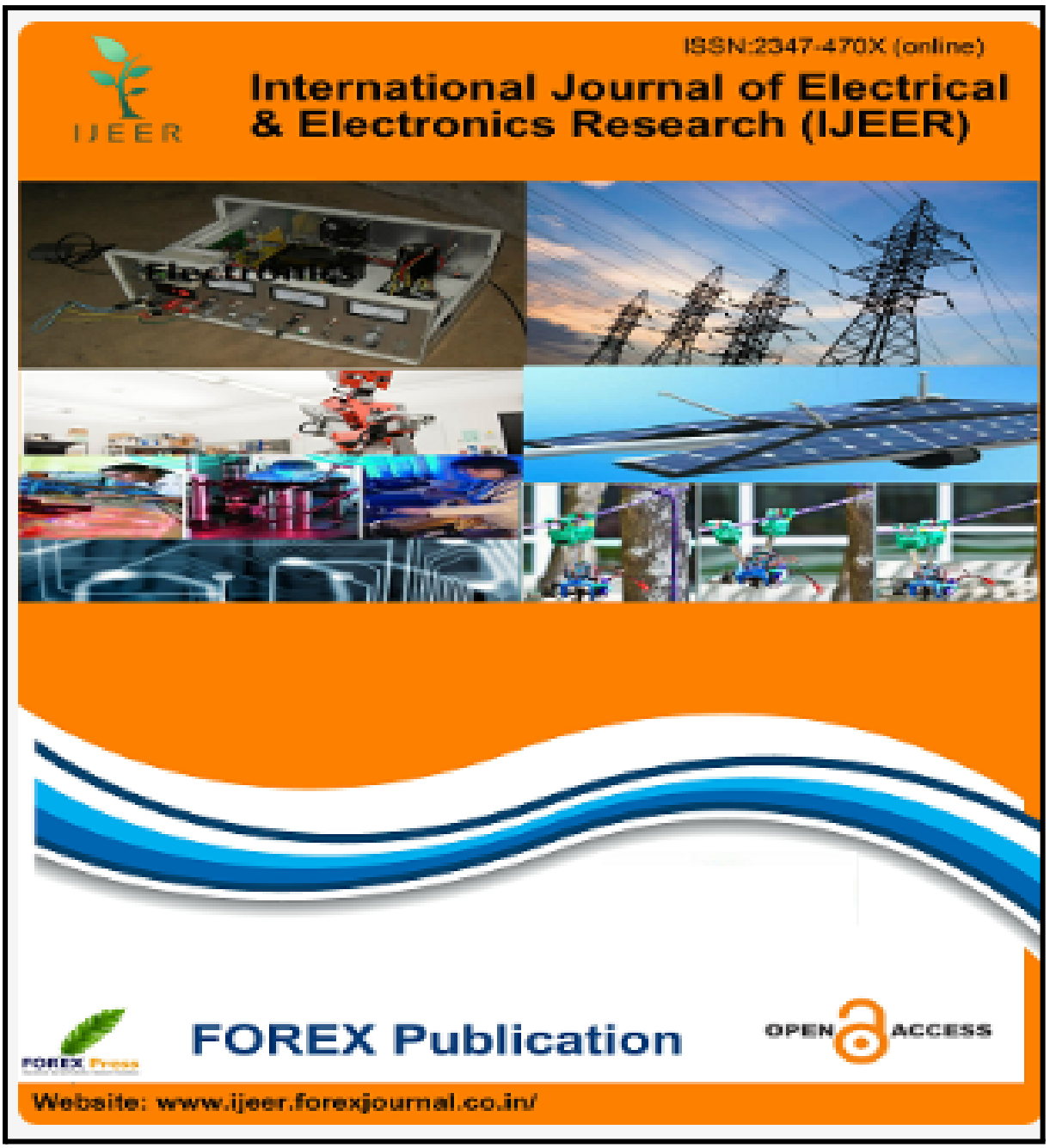
Since 1970 wearable technology has increased its application. Many wearable antennas have been used for the collection of data in the medical field or communicating data with other devices. It may be convenient to integrate wearable directly into clothing instead of attaching them on the body [1–4].

To reduce the cost related to health-care, telemedicine is one of the best options used for elderly people [5]. The combination of information technology and wearable sensors can assist elderly people to live in their home rather than living in expensive hospitals. The sensors are placed on the body of the patient for transmitting signals wirelessly for remote monitor to observe human physiological signals [6–8]. Zig-bee & GSM technologies are used for transmission and reception of signals.

Dual-band textile printed slot antenna with partial ground plane on jeans substrate is used for Wi-MAX (3.25 GHz–3.85 GHz), WLAN (5.15 GHz–5.35 GHz), and X-Band (8 GHz–12 GHz). The ultra-wideband (UWB) uses very low energy for short range. It can also have better battery life. In this application, the antenna is used as a Logo [9].

Textile antenna with dual-band Patch-Loop structure is developed to obtain two wide operating bands. Neoprene fabric having permittivity 1.5 is used as a substrate, and the antenna achieves a gain of 4.21 dBi at 2.58 GHz with a bandwidth of 15.9 GHz. For a gain of 6.45 dBi at 5.34 GHz frequency, the antenna achieves a bandwidth of 11.4 GHz. Here the patch is designed to resonate at 5.4 GHz, and a slot is designed for 2.5 GHz [10].

Received 4 February 2022, Accepted 14 April 2022, Scheduled 5 May 2022
* Corresponding author: Asit Kittur (asit.kittur@gmail.com).
The authors are with Veltech Rangarajan Dr. Sakunthala R & D Institute of Science & Technology, Chennai, India.


ISSN:2347-470X (online)
International Journal of Electrical & Electronics Research (IJEER)
IJEER
FOREX Publication
OPEN ACCESS
Website: www.ijeer.forexjournal.co.in/

FOREX Publication
Open Access | Rapid and quality publishing

International Journal of Electrical and Electronics Research (IJEER)
Research Article | Volume 10, Issue 4 | Pages 1077-1085 | e-ISSN: 2347-470X

Enhanced Diagnostic Methods for Identifying Anomalies in Imaging of Skin Lesions

Ranjeet R. Suryawanshi[1], Revanna C R[2], B. Kameswara Rao[3], Dankan Gowda V[4*] and Parismita Sarma[5]

[1]*Assistant Professor, Department of Electronics and Telecommunication Engineering, Bharati Vidyapeeth's college of Engineering, Kolhapur, Maharashtra, India, rrs.bvcoek@gmail.com*
[2]*Associate Professor, Department of Electronics and Communication Engineering, Government Engineering College, Ramanagaram, Karnataka, India, revannacr2008@gmail.com*
[3]*Associate Professor, Department of computer science and Engineering, Gandhi Institute of Technology and Management, GITAM (Deemed to be University), Visakhapatnam, Andhra Pradesh, India, kamesh3410@gmail.com*
[4]*Department of Electronics and Communication Engineering, BMS Institute of Technology and Management, Bangalore, Karnataka, India, dankan.v@bmsit.in*
[5]*Assistant Professor, Department of Information Technology, Gauhati University, Guwahati, Assam, India, parismita.sarma@gmail.com*

***Correspondence:** B. Kameswara Rao, kamesh3410@gmail.com

ABSTRACT- There are several types of skin diseases, to protect and keep them healthy from these ailments; an effective and efficient diagnosis is required. One of the domains used by medical experts to diagnose severe class of skin disease is medical imaging. It is non-invasive way of diagnosis in which screen of the abnormal region performs first and then the dermatologist examines the subcutaneous structure and forecasts the severity of the lesion. One severe class of lesions is skin cancer, which is categorized as melanoma and non-melanoma. Most of the research has been performed on melanoma as yet and non-melanoma cancer diagnosis is still an untouched area. The cure rate of skin cancer is high, when diagnosed at an earlier stage. The proposed approach is applicable to gray scale or single channel images and the resultant output is binary images, and this can be compared easily with the available mask in the benchmark dataset. In addition to this, the APCNN proposal minimizes the requirement of post processing step for lesion boundary detection.

Keywords: Skin cancer, Boundary, Classification, Segmentation, Invasive and Medical Diagnosis.

ARTICLE INFORMATION

Author(s): Ranjeet Suryawanshi, Revanna C R, B. Kameswara Rao, Dankan Gowda V and Parismita Sarma;

Received: 03/11/2022; **Accepted**: 22/11/2022; **Published**: 30/11/2022;
e-ISSN: 2347-470X;
Paper Id: IJEER 0311-01;
Citation: 10.37391/IJEER.100452
Webpage-link:
www.ijeer.forexjournal.co.in/archive/volume-10/ijeer-100452.html

Publisher's Note: FOREX Publication stays neutral with regard to Jurisdictional claims in Published maps and institutional affiliations.

1. INTRODUCTION

The largest organ in the body, the skin, is immediately exposed to the environment, making it susceptible to diseases, which are among the most well-known conditions affecting people. These ailments can abruptly grow as compared to surrounding skin and develop a lesion. There are two categories of skin lesion which exist in the human body as primary and secondary. Primary skin lesions are present at birth or developed over a person's lifespan whereas secondary lesions are the result of manipulation in primary lesions. As an example, itching in the mole by continuous scratching, leads to a secondary lesion [1].

There are various kinds of primary or secondary skin lesions occurring in different parts of the human body and few of them are severe. The most severe classes of skin lesion are skin cancers. These are the most prevalent forms of cancer disease, particularly among Caucasian descendants and people with light skin. This cancer is visible on the skin and is curable when it is detected at an early stage [2].

The advent of noninvasive approaches give dramatic boost in clinical diagnostic ability and help to detect skin lesion more accurately. The global adoption of this technology promotes imaging methods for skin lesion screening. Most prevalent class of cancer in white color people is melanoma but in wheat or dark color people SCC commonly occur. According to cancer society statistics, the most prominent class of cancer is melanoma and their cases have increased 30 times in last 88 years. Out of them, more than 1 million cases of skin cancers are diagnosed in the US only [3].

It is approximated that around 9,500 individuals in the U.S. are found to have skin cancer every day. Not only in the U.S., there are other countries in the world, where the cases of skin cancers are promptly identified due to certain confluence factors such as skin type, location, lifestyle and up to some extent for gene predisposition. Since cancer death cases can be momentously decreased if they are detected and taken care of during their early stages, it is of quite importance to empower research by developing strategies for early detection of cancer non-


NeuroQuantology
An Interdisciplinary Journal of Neuroscience and Quantum Physics
ISSN 1303 5150
Home About Login Current Archives Announcements Editorial Board
Submit Now For Authors Call for Submissions Statistics Contact
Home
NeuroQuantology
Clarivate Analytics
2017 Journal Citation Reports
Impact Factor: 0.453
Research Databases
Scopus
embase
ProQuest
crossref
GALE CENGAGE Learning
Search
Journal Menu
Home
Editorial Board
Archives
Current Archives
Author Guidelines
Call for Submissions
Login
NeuroQuantology
Q3
Atomic and Molecular Physics, and Optics
best quartile

Intrusion Detection System based on Energy Efficient Dynamic Clustering in a Heterogeneous Environment of Wireless Sensor Networks (WSNs)

Dr. Rajkumar K. Chougale
Assistant Professor in Electrical Engineering, Bharati Vidyapeeth's college of Engineering, Kolhapur, Maharashtra, India, raj.chougale2015@gmail.com

Ranjeet S. Mithari
Assistant Professor in Mechanical Engineering, Bharati Vidyapeeth college of engineering, Kolkapur, Maharashtra, India, ranjeetmithari8888@gmail.com

Amit A. Desai
Assistant Professor in Mechanical Engineering, Bharati Vidyapeeth's college of Engineering, Kolhapur, Maharashtra, India, meetdesai17@gmail.com

Avadhut R. Jadhav
Assistant Professor in Mechanical Engineering, Bharati Vidyapeeth's college of Engineering, Kolhapur, Maharashtra, India, arjmesa@gmail.com

Sarita S. Shinde
Assistant Professor in Engineering Physics, Bharati Vidyapeeth's college of Engineering, Kolhapur, Maharashtra, India, saritashinde.bv@gmail.com

Gayatri S. Ghorpade
Assistant Professor in Environmental studies, Bharati Vidyapeeth's college of Engineering, Kolhapur, Maharashtra, India, gayatrighorpade20@gmail.com

Abstract

Wireless sensor networks (WSNs) has widely used in the practical-world applications, including the identification of the military targets, the monitoring of forest fires, the detection of medical and/or scientific targets, and, most importantly, in our everyday lives at home. However, because WSNs use broadcast transmission as their communication method and therefore lacks tamper resistance, adversaries can easily compromise WSNs. As a result, a hacker has the ability to listen in on all communication, replay past texts, insert suspensive data groups, and the compromised nodes. The two main security vulnerabilities that affect sensor nodes most frequently are the node and authentication of node compromise. This study proposes a heterogeneous structure for WSN intrusion detection and node capture. Using a cutting-edge method that combines a signature- based and anomaly-oriented methods through the neural network of multi-layer perceptron (MLP) classification through the clustering context, this framework effectively finds the recorded nodes. Additionally, the suggested architecture is effective at a very reasonable level of computation and cost of communication, it could provide a security barrier for actual application of WSN.

Keywords: WSN, intrusion detection, multi-layer perceptron, wireless sensor networks, heterogeneous

DOI Number: 10.14704/nq.2022.20.9.NQ44553 **Neuro Quantology 2022; 20(9):4756-4766**

Introduction

The wireless sensor network (WSN) is a system made up of several low in cost, constrained in resource- sensor nodes that collect crucial environmental data and transfer to a node of sink which acts as a main passage to another network or as a point of access for the human interaction. WSN is the field that is expanding quickly as new technologies become available

International Journal of Mechanical Engineering

ISSN: 0974-5823

IJME is Peer Reviewed, Scopus and UGC-CARE List Group II Listed (Journals indexed in globally recognised databases)

Scopus

This journal also publishes Open Access articles

Journal Metrics

Acceptance rate: 30%

Submission to final acceptance decision: 7 - 14 days

Acceptance to publication: 14 - 28 days

Cite Score : 5.2

Impact Factor : 2.1

Subject Area: Mechanical Engineering and Related Area

Published By: *Kalahari Journals*

Click HERE to view the complete list of Editorial Board Member

International journal of Mechanical engineering is Scopus indexed Journal. This journal publishes scholarly articles. This journal is Scopus indexed from 2019 and also UGC-CARE List Group II Listed (Journals indexed in globally recognised databases)

ISSN: 0974-5823 Vol. 7 No. 3 March, 2022

International Journal of Mechanical Engineering

A STUDY ON BATTERY MANAGEMENT SYSTEM AND CHARGING INFRASTRUCTURE FOR ELECTRIC VEHICLE DEVELOPMENT

Dr. Rajkumar Chougale [1], Dr. Devidas Mahadik [2],

[1] Principal,Adarsh Institute of Technology and Research Centre Vita ,(Maharashtra).

[2] Assistant Professor in Electrical Engg., Bharati Vidyapeeth College of Engg., Kolhapur (Maharashtra).

ABSTRACT

Batteries are the main source of electricity in electric cars. After a few kilometres of driving, the battery in electric vehicles needs recharging. As a result, the New Battery Management System has been proposed. An in-depth assessment of this innovative and fulfilling solution tobattery problems in electric cars is presented in this detailed review and investigation. Road and off-road vehicle manufacturers have developed a wide range of electric drives because ofstrict laws like CO2 limitations and the desire to have pollution-free transportation. In addition to numerous hybrid propulsion methods, battery and fuel cell electric ideas are also available. Diverse applications call for different system configurations, each with its own set of benefits and drawbacks. Therefore, battery technologies play a significant part in meeting the varied criteria of the vehicle designs exhibited. Both charging and discharging are taking place concurrently. As soon as one half is totally depleted, the other half is used and the other half isstored for charging. With this management, we do not need external charging and the car is self-charging, thus there will be no space issue because we are not utilising two separate batteries. These battery management systems are examined in depth in this research, so that their advantages may be assessed.

Keywords: Electric Road vehicles, Hybrid electric vehicles, Fuel cell, Battery, Management

INTRODUCTION

Primary and secondary batteries are the most common types of batteries. Non-rechargeable primary batteries can only be drained once and are not able to be recharged. "Dry cells" are another name for these sorts of batteries. A secondary battery can be recharged to its original state after being discharged. Rechargeable batteries are another name for this sort of battery. High energy density, high power density, extended cycle life for little maintenance, and cheap cost for greater market adoption are all necessary components of a rechargeable battery system in electric vehicles and plug-in hybrid electric vehicles (PHEVs). Secondary batteries meet most of the above-mentioned characteristics, hence they are commonly employed in electric vehicles. Over the course of the last century, secondary batteries have been developed. There are already a wide variety of secondary batteries on the market. These include lead-acid, nickel- cadmium, nickel-metal hydride (NiMH), and lithium-ion (Li-ion) batteries.

To reach specified driving lengths, electric vehicles need battery systems that can store enough energy and generate enough peak power to achieve a certain acceleration performance. Electrochemistry of secondary batteries, which are the building blocks of battery systems, is first introduced in order to better comprehend how EV batteries work. Afterwards, we go into the four types of secondary batteries' origins, working principles, performance, and uses. Usingan electrochemical process, a battery cell converts chemical energy into electrical energy and vice versa an electrochemical battery cell schematically. In order to power an external load, thecell uses two collectors for positive and negative current: one on the negative electrode and oneon the

ISSN: 0974-5823 Vol. 7 No. 3 March, 2022

International Journal of Mechanical Engineering

A RESEARCH ON CRITICAL COMPONENTS OF ELECTRIC VEHICLE AND THE IMPACT OF CIRCUIT FAILURE

Dr. Devidas Mahadik [1], Dr. Rajkumar Chougale [2],

[1] Principal,Adarsh Institute of Technology and Research Centre Vita ,(Maharashtra).

[2] Assistant Professor in Electrical Engg., Bharati Vidyapeeth College of Engg., Kolhapur (Maharashtra).

ABSTRACT

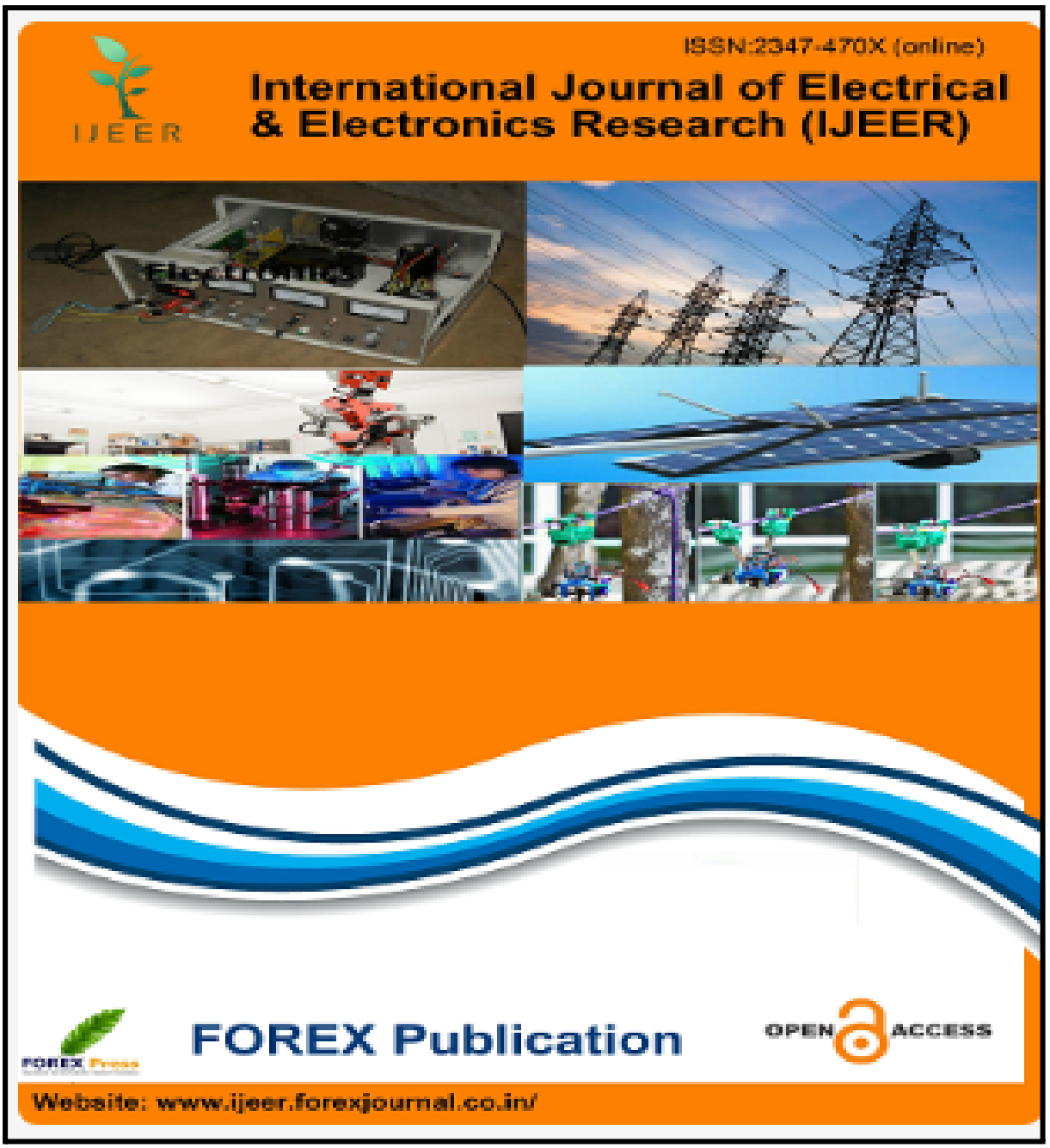
It is expected that this means of transportation would soon be replaced by vehicles powered by combustion engines. Preamplifier and power stage amplifiers govern the flow of power from the battery to the motor, with numerous sensors monitoring the system's functioning, in a motorspeed controller. In addition to the basic EV components, each features a number of technologies that are presently in use or that might be significant in the future. Electric vehicles(EVs) can have a substantial influence on the environment, the electricity grid, and other connected areas. Electric vehicles might pose a serious threat to the stability of the current power grid, but with adequate management and coordination EVs could be a key contributor to the successful implementation of the smart grid idea. The battery pack's 300 V direct currentpowers the controller in this vehicle. As a result, the motor is supplied with a maximum 240 Vthree-phase alternating current. The batteries' massive transistors allow them to swiftly turn onand off the voltage. The connection from the accelerator pedal connects to two potentiometers when you press the pedal. Using potentiometers, the controller is able to determine how muchpower to supply the motor. As a result, the primary objective of this article is to examine all ofthe relevant data on electric vehicle layouts and electrical machines as well as charging and optimization methods.

Keywords: Circuit, components, electric, vehicle, battery, power, voltage, current, electricity grid

INTRODUCTION

You can learn a lot about magnets, electromagnets, and electricity in general if you understandhow a motor works. Learn how electric motors work in this paper. The electric motor is at the very core of any electric vehicle. One of the most efficient mechanical devices on the globe is an electric motor. Electric motors produce no harmful emissions, unlike internal combustion engines. An electric motor is made up of three moving elements. Electric motors outlive internal combustion engines every day of the week, even if they have three sections. There aretwo rotors and two end bearings in this machine. Just one of the many reasons for the growing acceptance of electric vehicles and the push to encourage individuals to make their own. Regardless of whether you hire someone to create your EV or build it yourself, your EV will save the globe. Because of the intrinsic qualities of its electric motor, a high-performance, fun-to-drive EV will provide years of low-maintenance driving at a little expense.

This paper goal is to help you choose the best electric motor for your EV conversion or construction, and to point you in the right direction. Electric motor basics and useful equationsare covered in this paper in order to achieve these goals. You will also learn about the varioustypes of electric motors and their advantages and disadvantages for EVs, as well as the best electric motor for your EV conversion or build today and its characteristics. Finally, you will learn about which specific electrical engine to closely monitor and research for future EV conversions or builds. Inherently, electric motors are powerful. There are very few traction motors that do not provide near-peak torque at a speed of zero revolutions per minute. Becauseof this, electric traction motors have powered our subways and diesel-electric trains for so long.There is no need to wait for the


ISSN:2347-470X (online)
International Journal of Electrical & Electronics Research (IJEER)
IJEER
FOREX Publication
OPEN ACCESS
Website: www.ijeer.forexjournal.co.in/

FOREX Publication
Open Access | Rapid and quality publishing

International Journal of Electrical and Electronics Research (IJEER)
Research Article | Volume 10, Issue 4 | Pages 1013-1020 | e-ISSN: 2347-470X

A Morphological Change in Leaves-Based Image Processing Approach for Detecting Plant Diseases

Aarti Hemant Tirmare[1], Revanna C R[2], Dankan Gowda V[3*], Ramesha M[4] and N. K. Darwante[5]

[1]*Assistant Professor, Department of Electronics and Telecommunications Engineering, Bharati Vidyapeeth college of Engineering Kolhapur, Maharashtra, India, aartitirmare9@gmail.com*
[2]*Associate Professor, Department of Electronics and Communication Engineering, Government Engineering College, Ramanagaram, Karnataka, India, revanmacr2008@gmail.com*
[3]*Department of Electronics and Communication Engineering, BMS Institute of Technology and Management, Bangalore, Karnataka, India, dankan.v@bmsit.in*
[4]*Assistant Professor, Department of Electronics and Communication Engineering, GITAM School of Technology, GITAM (Deemed to be University), Beregaluru, Karnataka, India, rameshmalur037@gmail.com*
[5]*Associate Professor, Department of Electronics & Telecommunication, Sanjivani College of Engineering, Kopargaon, Affiliated to Savitribai Phule Pune University, Pune, Maharashtra, India, darwante11@gmail.com*

***Correspondence:** Dankan Gowda; dankan.v@bmsit.in

ABSTRACT- In recent years, rice production is mostly affected by rice plant leaf diseases due to the unawareness of suitable management strategies. The paddy leaves are regularly impacted by Brown spot and Bacterial blight diseases, which result in creating major loss to the farm owners. The naked-eye observation is used by the farmer to analyse the condition of paddy leaves, but, it takes more time and the accuracy of it is based on the observer. The naked-eye observation is generally difficult and it has a high possibility of human error. To overcome these drawbacks, a fast and suitable recognition system is required. Thus, appropriate methodologies are required for the determination of diseases in paddy leaf. The use of image processing is seen as a non-intrusive method that offers farmers a precise, economical, and trustworthy solution. Therefore, this research work, focused to provide the fast recognition system to detect leaf diseases in paddy crops.

Keywords: Morphological, Leaves, Image, Segmentation, Plant Diseases, Brown Spot.

ARTICLE INFORMATION

Author(s): Aarti Hemant Tirmare, Revanna C R, Dankan Gowda V, Ramesha M and N. K. Darwante;

Received: 12/10/2022; **Accepted**: 05/11/2022; **Published**: 20/11/2022;
e-ISSN: 2347-470X;
Paper Id: IJEER 1210-03;
Citation: 10.37391/IJEER.100443
Webpage-link:
https://ijeer.forexjournal.co.in/archive/volume-10/ijeer-100443.html

Publisher's Note: FOREX Publication stays neutral with regard to Jurisdictional claims in Published maps and institutional affiliations.

1. INTRODUCTION

The plant disease affects the plant physiological function and creates severe destruction to the field. Further, the plant diseases may propagate to other plants through several means. The occurrence of each disease in the plant is found by its symptoms, which may present in a variety of parts of the crops, such as roots, fruits, leaves, flowers and stem. Disease in plants can create unnecessary changes in appearance, size of fruits, leaves, flowers and stem.

The disease in plant leads to the reduction of crop production by affecting the quantity as well as eminence of the yield. The predominant food crop of Asian countries is rice. This is the major food source for south Indian people too. Many techniques are developed to increase the crop yield to satisfy the huge need for rice crops [1]. This food grain is grown in huge fields of paddy and hence the spread of any disease would severely affect the productivity.

Such harmful diseases infect the plant due to several biological reasons, which are discussed below.

Bacterial Diseases: If the plant diseases occur due to bacteria, it is referred to as bacterial disease. Bacterial leaf spot is known as the plant disease which is generally caused by bacterial infection. This bacterial leaf spot mostly affects the young leaves and the affected leaves look like dark, greasy, twisted, water-soaked - appearing lesions.

Viral Diseases: Both lives of plant and production are affected by viral-based diseases. In viral diseases, the symptoms prominently occur on the plant leaves, but, several viruses may affect the other parts of the plant such as roots, leaves and fruits [2]. The identification of symptoms of viral diseases is difficult compared to the symptoms of bacterial diseases. As a result of viral diseases, the growth of plants is affected, likewise, the leaves may appear as curled and wrinkled.

Fungal Diseases: Fungal disease can propagate from one plant to another plant by factors like water and wind. It affects the seed, yield and soil. The fungal disease affected plant appears as water-soaked, gray-green spots. After the formation of gray-green spots, white fungal is developed under the leaf of plant.

The productivity in agriculture is significantly affected every year because of the diseases, invasion of pathogens and climatic


NeuroQuantology
An Interdisciplinary Journal of Neuroscience and Quantum Physics
ISSN 1303 5150
Home About Login Current Archives Announcements Editorial Board
Submit Now For Authors Call for Submissions Statistics Contact
Search
Home
NeuroQuantology
Welcome to the future of Science
Publisher: AnKa Publisher
Journal Menu
Home
Editorial Board
Archives
Current Archives
Author Guidelines
Call for Submissions
Login
NeuroQuantology
Q3
Atomic and Molecular Physics, and Optics
best quartile
SJR 2021
0.29

An extraordinary class of asymptotic analytical functions with coefficient inequality

Gurmeet Singh
Dept of Mathematics, GSSDGS Khalsa College, Patiala,
meetgur111@gmail.com
Ananda S. Patil,
Dept of Gen. Eng., Bharati Vidyapeeth's College of Eng., Kolhapur, Maharashtra,
ananda.s.patil@bharatividyapeeth.edu

Abstract –In this paper, we elucidatecoefficient inequality proved by Fekete and Szegö[5] in 1933 by using the analytic functions of the form $f(z) = z + \sum_{k=2}^{\infty} a_k z^k$ for asubclass of a class of regular functions.

2010 *Mathematics Subject Classification*: 30C45, 30C50.

Keywords - Principle of subordination, Fekete – Szegö Inequality, Starlike functions, Boudedanalytic functions.

DOI Number: 10.14704/nq.2022.20.10.NQ55472 **NeuroQuantology 2022; 20(10): 4960-4966**

1. Introduction – In this paper, we will be dealing with geometric function theory, abranch of complex analysis dealing with the regular functions geometrically. The mainstay of this theory is Riemann Mapping Theorem which was proved in 19th century. It originated its roots in the work of prodigious mathematician Koebe [10] in 1907, who stated that "An analytic function which is univalent has properties of conformal mapping i.e. angle preserving property". From this theorem, Bieberbach conjecture was substantiated. This was given by L. Bieberbach[2] in 1916 but proved in conclusion by Louis De Branges [3] in 1985 and while attempting this conjecture, an equality arosecalled Fekete Szegö Inequality and was given by Fekete and Szegö [5].

The inequality which is for the function $f(z) \in A$ and based on Bieberbach conjecture, is named as Fekete Szegö Inequality, which states that if $f(z)$ is a function of type

$$f(z) = z + \sum_{k=2}^{\infty} a_k z^k$$

which is univalent in E, then

$$|a_3 - \mu a_2^2| \leq \begin{cases} 3 - 4\mu \; if \; \mu \leq 0 \\ 1 + 2\, exp\left(\frac{-2\mu}{1-\mu}\right) \; if \; 0 \leq \mu \leq 1 \\ 4\mu - 3 \; if \; \mu \geq 1 \end{cases}$$

This is an inequality which is related to univalent analytic functions [8], [16], [18] – [43] and gives the necessary condition to map the unit disk of a complex plane injectively to the complex plane. It gives the relation between second and third coefficient of univalent analytic function.


Hindawi
Journals
Publish with us
Publishing partnerships
About us
Blog
Journal of Nanomaterials
Journal overview
For authors
For reviewers
For editors
Table of Contents
Special Issues
Recently Published
Research Progress on Polymeric Inorganic Nanocomposites Insulating Materials
Guang Yu | Yujia Cheng | Zhuohua Duan
Read the full article
Journal metrics
Acceptance rate 55%
Submission to final decision 58 days
Acceptance to publication 22 days
CiteScore 4.700
Journal Citation Indicator 0.370
Impact Factor 3.791
See full report
APC $2375
Submit
Author guidelines
Journal profile
Editor spotlight
Special Issues

Hindawi
Journal of Nanomaterials
Volume 2022, Article ID 4971582, 9 pages
https://doi.org/10.1155/2022/4971582

Research Article

Flax- and Graphene-Reinforced Natural Fiber Nanocomposites under Cryogenic Environment for Constructional Applications

Munirah D. Albaqami,[1] N. Krishnamoorthy,[2] S. D. Uma Mageswari,[3] Sarita Santaji Shinde,[4] S. C. V. Ramana Murty Naidu,[5] Neha Munjal,[6] Aboud Ahmed Awadh Bahajjaj,[1] S. H. Mohammed,[7] and Prasath Srinivasan[8]

[1]*Department of Chemistry, Sree Krishna College of Engineering, Vellore, 632101 Tamil Nadu, India*
[2]*Department of Physics, Sri Eshwar College of Engineering, Coimbatore, Tamil Nadu 641202, India*
[3]*Department of Science and Humanities, R.M.K. Engineering College, Kavaraipettai, Tamil Nadu 601206, India*
[4]*Department of General Science, Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra 416013, India*
[5]*Department of Mechanical Engineering, Sri Venkateswara College of Engineering & Technology, Srikakulam, Andhra Pradesh 532410, India*
[6]*Department of Physics, Lovely Professional University, Phagwara, Punjab 144411, India*
[7]*Department of Mechanical Engineering, C. Abdul Hakeem College of Engineering & Technology, Melvisharam, 632509 Vellore, Tamil Nadu, India*
[8]*Department of Mechanical Engineering, College of Engineering and Technology, Mizan Tepi University, Ethiopia*

Correspondence should be addressed to Prasath Srinivasan; prasathsrinivasan@mtu.edu.et

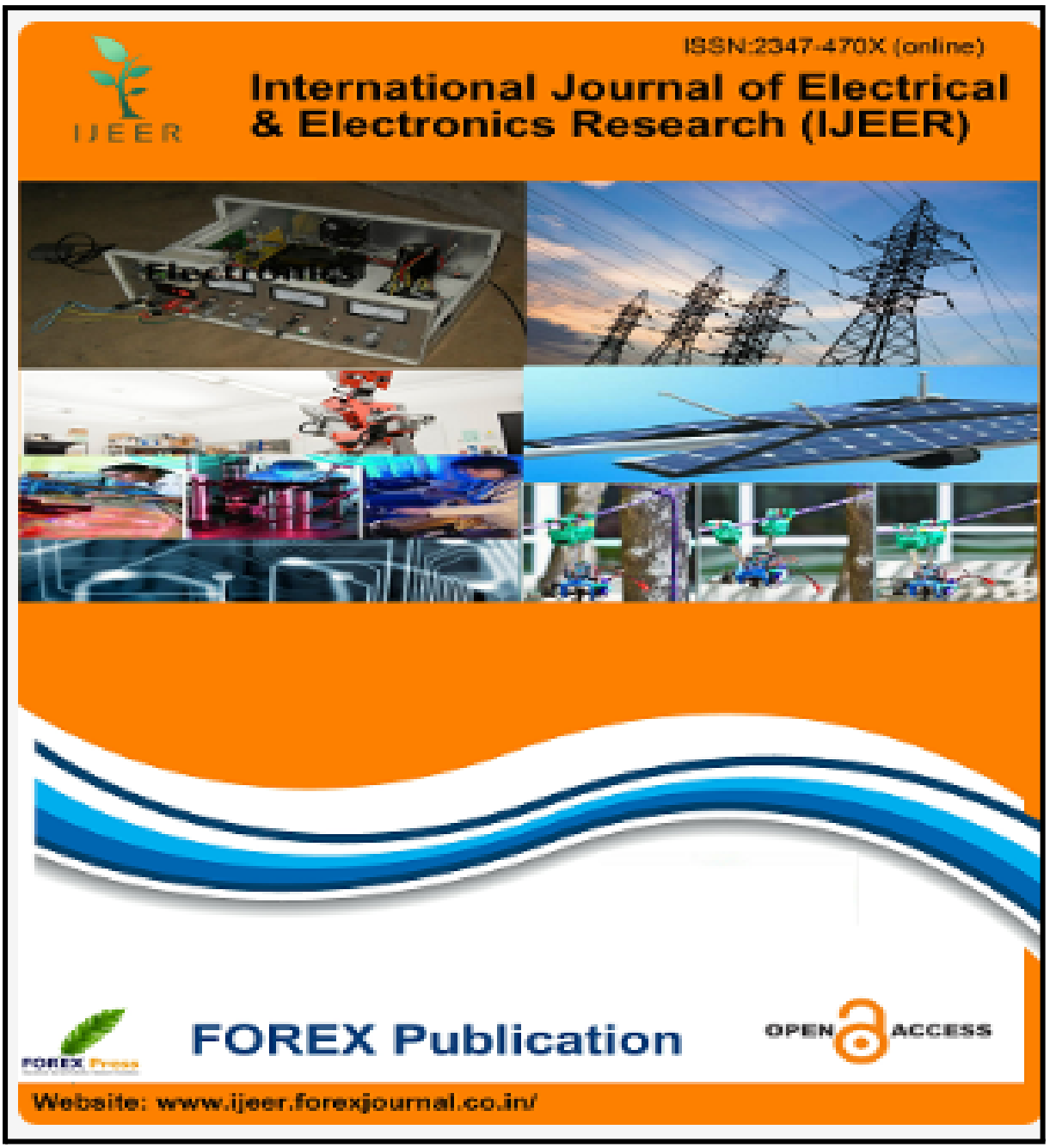
Received 11 May 2022; Revised 26 June 2022; Accepted 30 June 2022; Published 3 October 2022

Academic Editor: Arpita Roy

Mostly at the micro- and nanoscales, efforts were made to produce innovative thermoplastic nanocomposite materials. These composites were reinforced with natural fibres and artificial additives with improved mechanical characteristics. This research entails the creation of a novel nanocomposite material made up of unsaturated polyester resin, graphite at the nanoscale, and flax fibres at the microscale. Flax fibres make up 4, 8, and 12% of the binding matrix's weight, respectively. A constant quantity of nanoparticles equal to 4 wt% of the binding matrix is used. In order to stick the graphene to natural fibres, an appropriate surface alteration approach is needed, and this work will focus on the plasma technique of interface adherence. Fibres were employed as a reinforcement with polyester to create a nanocomposite that improved adherence between the fillers while also retaining the matrix alkalisation. In order to assess interferential adherence and fibre distribution homogeneity in the matrix system, the composite was made up of hand lay-up technique. The manufactured composite was engrossed into fluid N_2 at -196°C. A SEM was utilized to undertake treated and untreated specimens for spectroscopy analyses. Mechanical possessions like tension and flexural were accomplished. In comparison to previous tested doses, the 5 percent alkali-treated flax incorporating graphite has shown promising outcomes than other samples.

1. Introduction

Awareness of environmental issues and social response is raised, as improved pollution regulations and inefficient oil consumption, prompting consideration of ecofriendly products. Organic fibre is one of the most ecologically compost resources on the market, exceeding man-made materials in a number of ways. As per a recent industry assessment, the global market for organic fibre-based material is expected to reach $3.9 billion by 2023. The global trend in the NFPC industry, as per current estimates, will continue to develop fast [1]. A natural fibre-


ISSN:2347-470X (online)
International Journal of Electrical & Electronics Research (IJEER)
IJEER
FOREX Publication
OPEN ACCESS
Website: www.ijeer.forexjournal.co.in/

FOREX Publication
Open Access | Rapid and quality publishing

International Journal of Electrical and Electronics Research (IJEER)
Research Article | Volume 10, Issue 4 | Pages 1050-1057 | e-ISSN: 2347-470X

Novel Predictive Control and Monitoring System based on IoT for Evaluating Industrial Safety Measures

Priyadarshani Shivkumar Mali[1], Dankan Gowda V[2], Hemant. A. Tirmare[3], Varsha Amol Suryawanshi[4] and Abhay Chaturvedi[5*]

[1]*Assistant Professor, Department of Electronics and Telecommunications Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India, priyadarshanimali@gmail.com*
[2]*Department of Electronics and Communication Engineering, BMS Institute of Technology and Management, Bangalore, Karnataka, India, dankan.v@bmsit.in*
[3]*Assistant Professor, Computer Science and Technology, Department of Technology, Shivaji University, Kolhapur, Maharashtra, India, hat_tech@unishivaji.ac.in*
[4]*Assistant Professor, Department of Electronics and Tele communication, KIT's college of Engineering (Autonomous) Kolhapur, Maharashtra, India, suryavanshi.varsha@kitcoek.in*
[5]*Associate Professor, Department of Electronics and Communication Engineering, GLA University, Mathura, Uttar Pradesh, India, abhaychat@gmail.com*

***Correspondence:** Abhay Chaturvedi; email abhaychat@gmail.com

ABSTRACT- In this paper, the Accident Reduction Model (ARM) technique has been used to analyze different critical criteria in various industries. This ARM technique is used to determine the conclusions of the decision-making process. Valid data is obtained in the structure of the IoT with proper and consistent and useful information. The network address utility allows efficient sensor data. The necessary configuration procedure effectively monitors relevant sensor boundary values. Finally, we have ensured that the system will be able to provide dynamic performance in an IoT-based use of low-cost estimates and lower execution time.

Keywords: IoT, Safety System, Attributes Sensor, Industry, Mean, and Standard Deviation.

ARTICLE INFORMATION

Author(s): Priyadarshani Shivkumar Mali, Dankan Gowda V, Hemant. A. Tirmare, Varsha Amol Suryawanshi and Abhay Chaturvedi;
Received: 18/10/2022; **Accepted**: 10/11/2022; **Published**: 20/11/2022;
e-ISSN: 2347-470X;
Paper Id: IJEER 1810-07;
Citation: 10.37391/ijeer.100448
Webpage-link:
https://ijeer.forexjournal.co.in/archive/volume-10/ijeer-100448.html

Publisher's Note: FOREX Publication stays neutral with regard to Jurisdictional claims in Published maps and institutional affiliations.

1. INTRODUCTION

EHS prevents the Hazard or damage caused by the possibility of an event of Risk or disaster. There is no possibility of injury/ damage/accident occurring by injuries, Incidents, Near miss, actual infections, disability, or even Fatal. They consist of Environmental, Health, and Safety (EHS) departments and responsible safety officer who is technically and professionally qualified. But in the textile and the foundry, they employ only less number of safety professionals for their operation [1]. Hence, they don't have any separate department and authority for EHS issues as per the statutory requirements. The accidents due to machinery form a sizeable amount of injuries and even permanent disablement. Even a highly skilled and more experienced person may be injured by hazardous machinery [2]. It is impossible for a human always to be on 100% alertness. A well designed and carefully maintained machine will make the operator to concentrate on their work without any fear of accident and incident.

The production will automatically be more with better results. In specific, heavy engineering (85 %), automobile (80 %), manufacturing (65 %), foundry (50 %) and textile (40 %) industry provide fencing in areas of moving and rotating parts of running machinery. Heavy engineering, automobile, and manufacturing industries provide fencing as per the applicable standards and regulations because they purchase or fix in the machines which are of the best quality, providing in vendor units [3]. Hence, they provide fencing at the design stage itself. In the case of foundry and textiles, they have not provided fencing to all machineries as they are handling only a smaller number of machines. Hence, they do not need fencing for all machines. Hence, they look after the fencing and measures to a minimum level while compared to other industries. Revolving parts protection is one of the engineering control measures of protecting the employees from the movable parts and running parts of the machine. Hence, all the revolving parts do not require frequent adjustment while in motion, which are completely encased in the industries, as mentioned earlier [4]. But, in the case of the textile industry (65 %) and foundry (65 %), effective measures should be taken to provide the revolving machine protection at the design stage itself. The revolving machine should be fixed with a notice indicating the safe working peripheral speed. Overall, about 79 % of Indian industries are provided with the notice of safe work speed. In the heavy engineering (95 %) and automobile (90 %) industries, the safe work speed practices are well followed as per the standard. The manufacturing (75 %), foundry (65 %), and the

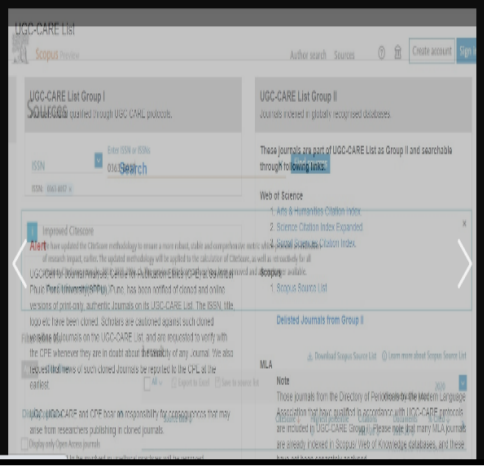
GRADIVA REVIEW JOURNAL

A Monthly Publishing Journal

Gradiva Review Journal

HOME | CALL FOR PAPERS | AUTHOR'S | PRESENT ISSUE | SPECIAL ISSUE | EDITORIAL BOARD | CONTACT

Welcome To Gradiva Journal(Issn No : 0363-8057)



Information

Submit Paper To - submitgrjournal@gmail.com

Scopus Active And Ugc Care Group 2 Journal

Scopus Official Link : https://www.scopus.com/sourceid/16200154732

A Multidisciplinary Journal

We Will publish your paper within 48hrs

Acceptance Status - 1-2days

Open Access & Peer Reviewed Journal

A Monthly Publishing Journal

Lowest processing charge - 2000/ per article

Impact Factor - 6.3

Development of Laboratory Performance Monitoring and Evaluation System Using Machine Learning

Mrs. Amruta C. Hatkar[1], Ms. Shagupta M.Mulla[2]

[1]*Department of Computer science & Engineering, Student of Bharati Vidyapeeth's College of Engineering,Kolhapur. Shivaji University, Kolhapur*

[2]*Department of Computer Science & Engineering, Faculty of Bharati Vidyapeeth's College of Engineering, Kolhapur. Shivaji University, Kolhapur*

Abstract

The laboratory performance monitoring and evaluation of performance system deals with the idea of smart labs with automated access utilizing IOT for automating the process of switching ON the appliances providing smartness and automation to our computer labs. It uses technology for image acquisition in Raspberry Pi based embedded systems. The RPi (Raspberry pi) controls the camera to capture images. The camera captures the facial picture and RPi processes the image to the service which recognizes the face in the image by comparing it with the images which are stored in the database. If the picture is found in the database node is assigned to the person, the node and nearby fan and light are provided power. Nodes will be notified by voice announcement. After successful comparison the attendance is marked into database table for that student for subject.

Keywords: **Internet of Things, Local Binary Patterns Histogram, Raspberry Pi3, Machine Learning**

Introduction

Automation is any technology used to carry out a process or procedure with at least human assistance. Need of automation increasing day by day. The concept of facial recognition to gain access to the node in a lab is an idea which is used to make our labs smart and automated. A facial recognition system is a system that captures facial images and verifies the person's identity with a digital camera. Face pictures can be captured from a separation without touching the individual being recognized. Face Recognition is normally utilized as a part of security frameworks and can be contrasted with different biometrics. It has additionally turned out to be mainstream as a commercial recognizable proof.

Proposed system also uses cloud computing to store the database of images and for facial recognition. Cloud computing makes the system scalable. Cloud having more storage capacity than SD card. Cloud computing allows multiple RPi system access same database stored in cloud, instead of creating different database for each RPi Systems in different Lab.

Machine learning (ML) and artificial intelligence (AI) are closely related. AI becomes feasible via ML. Through ML, computer systems learn to perform tasks such as classification, clustering, predictions, etc. To archive the learning process, we train the system using various algorithms and statistical models and analyze sample data. The sample data are usually characterized by measurable


JETIR.ORG
Home
About Jetir
Editorial / RMS
For Author
Archive
Contact Us
Submit Paper Online
Journal of Emerging Technologies and Innovative Research | An International Open Access , Peer-reviewed, Refereed Journal | ISSN: 2349-5162
Impact factor 7.95 Calculate by Google and Semantic Scholar | UGC Approved Journal No 63975 | ESTD Year : 2014 | Email: editor@jetir.org
About JETIR (Peer-Reviewed, Refereed, Open Access & Indexed)
Scholarly Open Access Research Journal, Peer-Reviewed, Refereed Journals, Impact Factor 7.95 (Calculate By Google Scholar and Semantic Scholar | AI-Powered Research Tool), Multidisciplinary, Monthly, Multilanguage, Indexing In All Major Database & Metadata, Citation Generator, Digital Object Identifier(DOI), UGC Approved Journal No 63975, Publication Guidelines : COPE Guidelines, Online and Print With Hard Copy ISSN Approved Journal, Low Publication fees ₹1500 INR for Indian author & 55$ for Foreign International Author.
Important Links
Call For Paper Details
Submit Paper Online
Check Paper Status
Pay Fees Online
Contact Us

© 2022 JETIR May 2022, Volume 9, Issue 5 www.jetir.org (ISSN-2349-5162)

JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue

JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)

An International Scholarly Open Access, Peer-reviewed, Refereed Journal

Identification, classification, and grading of plant leaf diseases using CBIR and K-means clustering

Jayamala K. Patil,
Department of Electronics & Telecommunication Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India.
E-mail: jayamala.patil@rediffmail.com,

Vinay S. Mandlik
Department of Electronics & Telecommunication Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India.
E-mail: vinaysmandlik@gmail.com,

Sarapda A. Dhole
Department of Electronics & Telecommunication Engineering, Bharati Vidyapeeth's College of Engineering, for Women, Pune, Maharashtra, India.
E-mail: sarapdadhole@rediffmail.com

ABSTRACT

Plant disease management involves the identification, classification, and grading of plant disease according to disease severity. It is not only a challenging task that involves human resources but also includes expertization and timely decisions to reduce the threat of reduced production and high spared of disease. The efficiency of recently developed systems depends on the selection of image features and accuracy in the segmentation of diseased portions. The research in this paper presents Content-Based Image Retrieval (CBIR) system implemented for the identification and classification of leaf diseases. The system is further upgraded with the extraction of diseased portion of the leaf using K-means clustering technique for grading the disease severity. The retrieval system is realized using of color, shape, and texture features of the leaf. It is observed that the proposed system performs the tasks of disease identification, classification, and severity grading accurately and consistently

Keywords: CBIR, Disease, Color, Shape, Texture

I. INTRODUCTION

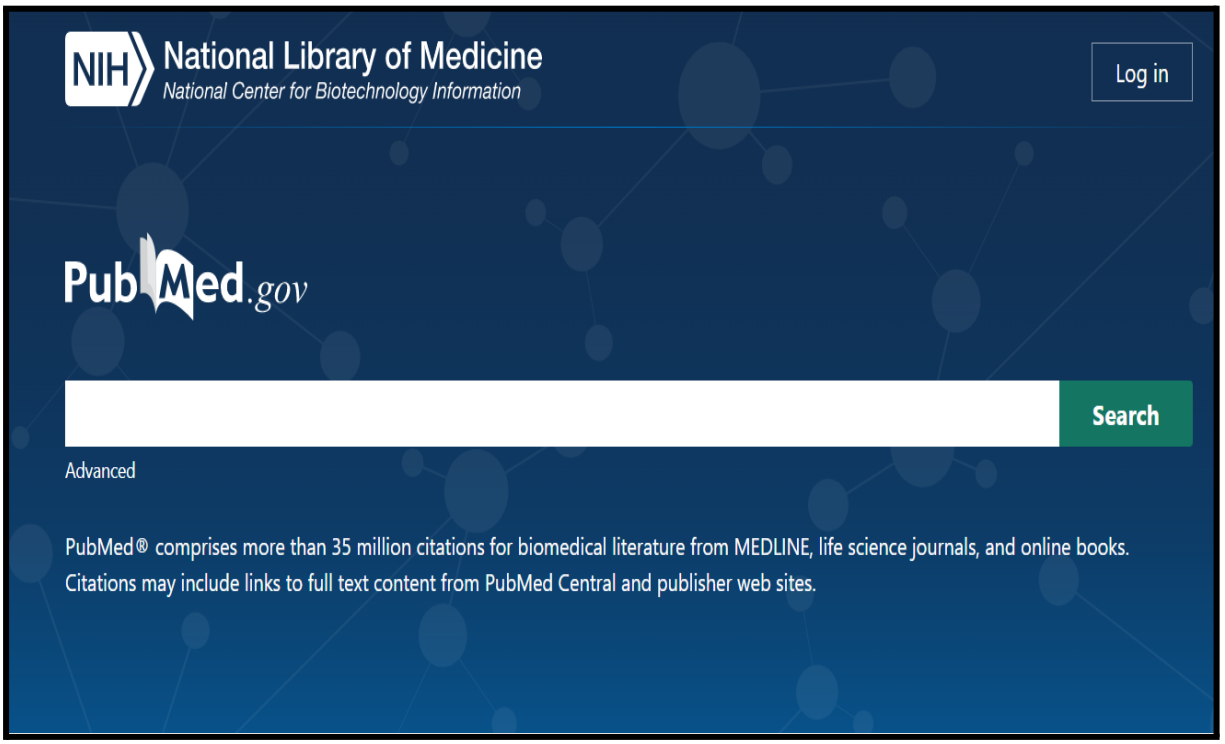
Most of the population in agricultural countries depends on agriculture for livelihood. Because of suitable atmospheric condition in India agriculturalist have wide range of diversity for cultivation of suitable fruits and vegetable crops. However, the cultivation of these crops for optimum yield and quality produced is highly affected by crop diseases. Hence proper cultivation of crops requires close monitoring especially for the management of diseases that can affect production significantly and subsequently the post-harvest life. Disease is caused by pathogen and its symptoms are observed on plant leaves, stem, flowers and fruits and also produce different traits like change in the size and shape of leaf, stem, flowers and fruits. Identification of the disease in its early stage enables timely cure and control over it. This process requires an expert to identify and classify the disease, describe the method of treatment and protection. Identifying the plant disease is not easy task. It requires experience and knowledge of plants and their diseases. It also requires accuracy in describing the symptoms of plant diseases. Agriculturalist can depend on a system which has experience and knowledge, called an Expert System.

An expert system can be an excellent agriculturalist, agricultural advisor, Electronic or Computerized expert system. An excellent agriculturalist is able to catch the change of the crops in the growing process and they manage the cultivation in proportion to the change. This ability of catching the delicate change in crops is developed in them through the observation and long cultivation experience. It is difficult for them to transmit this knowledge to future generations [1]. If agriculturalists decide to take advice from agricultural expert regarding the treatment of pest /disease/ fruit to their crop/plant in order to increase the crop productivity then he may face following situations [2]:

i) Sometimes agriculturalist has to go long distances for approaching the expert.
ii) Even though they go such distances expert may not be available at that time.
iii) Sometimes, the expert whom a agriculturalist contacts, may not be in a position to advise him with the available information and knowledge.

In these cases seeking the expert advice is very expensive and time consuming.

Since disease diagnosis which includes identification classification and grading is based on visual inspection, it is possible to apply several image processing and computer vision techniques for diagnosis. The systems developed using such techniques are considered as Electronics expert systems. Electronic expert systems help agriculturalists in identifying diseases, making the right decision of treatment and selecting the best one. The expert systems are intelligent computer programs that are capable of offering solutions or advices related to specific problems in given domain, both in a way and at a level comparable to that of human expert in a field. One of the advantages of using Electronic expert systems is its ability to reduce the information that human users need to process, reduce personnel costs and increase throughput. Another advantage of expert system is that it performs tasks more consistently than human experts [3].


NIH
National Library of Medicine
National Center for Biotechnology Information
Log in
PubMed.gov
Search
Advanced
PubMed® comprises more than 35 million citations for biomedical literature from MEDLINE, life science journals, and online books.
Citations may include links to full text content from PubMed Central and publisher web sites.

› Diagnostics (Basel). 2022 Nov 11;12(11):2758. doi: 10.3390/diagnostics12112758.

Employing Energy and Statistical Features for Automatic Diagnosis of Voice Disorders

Avinash Shrivas [1], Shrinivas Deshpande [1], Girish Gidaye [2], Jagannath Nirmal [3], Kadria Ezzine [4], Mondher Frikha [4], Kamalakar Desai [5], Sachin Shinde [6], Ankit D Oza [7], Dumitru Doru Burduhos-Nergis [8], Diana Petronela Burduhos-Nergis [8]

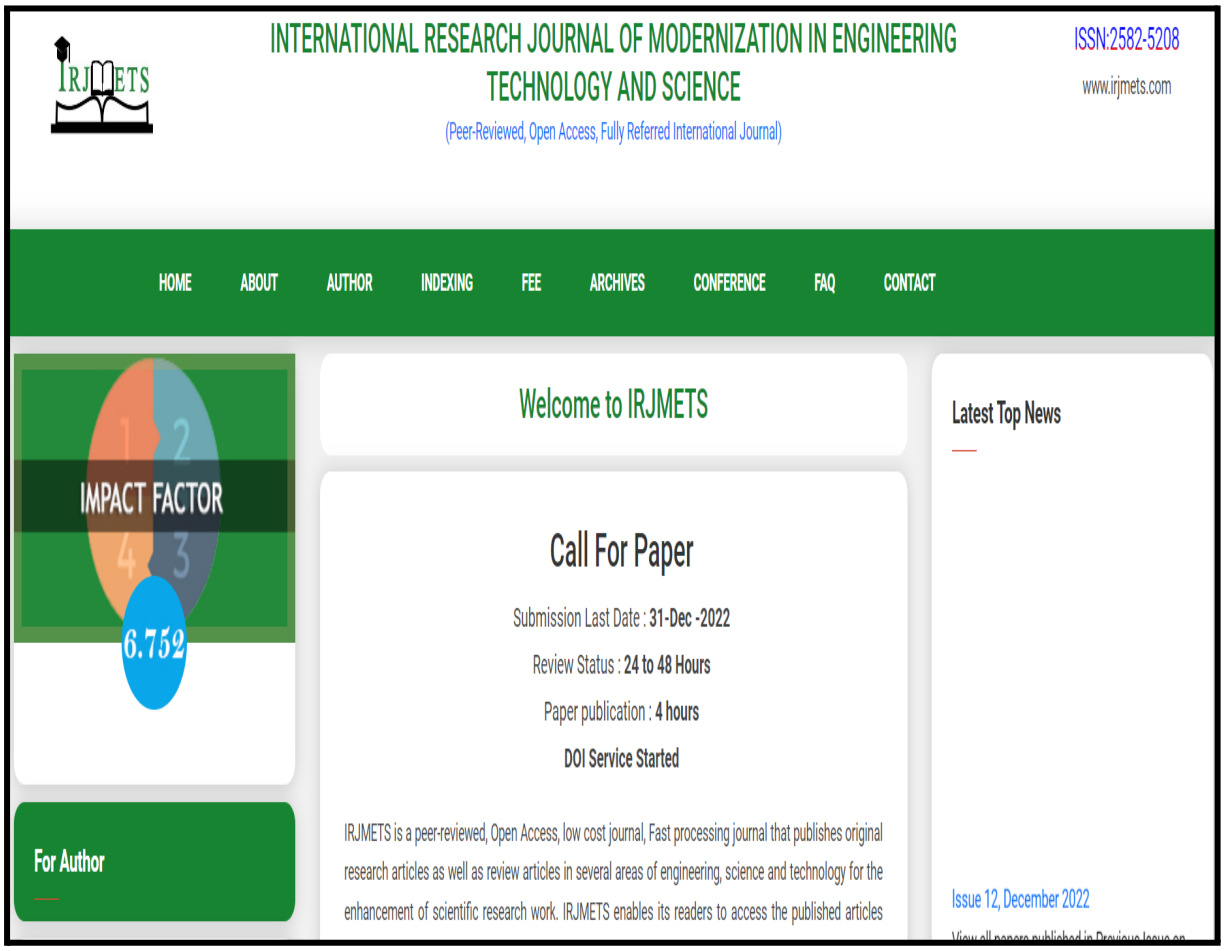
Affiliations + expand

PMID: 36428819 PMCID: PMC9689977 DOI: 10.3390/diagnostics12112758

Free PMC article

Abstract

The presence of laryngeal disease affects vocal fold(s) dynamics and thus causes changes in pitch, loudness, and other characteristics of the human voice. Many frameworks based on the acoustic analysis of speech signals have been created in recent years; however, they are evaluated on just one or two corpora and are not independent to voice illnesses and human bias. In this article, a unified wavelet-based paradigm for evaluating voice diseases is presented. This approach is independent of voice diseases, human bias, or dialect. The vocal folds' dynamics are impacted by the voice disorder, and this further modifies the sound source. Therefore, inverse filtering is used to capture the modified voice source. Furthermore, the fundamental frequency independent statistical and energy metrics are derived from each spectral sub-band to characterize the retrieved voice source. Speech recordings of the sustained vowel /a/ were collected from four different datasets in German, Spanish, English, and Arabic to run the several intra and inter-dataset experiments. The classifiers' achieved performance


INTERNATIONAL RESEARCH JOURNAL OF MODERNIZATION IN ENGINEERING TECHNOLOGY AND SCIENCE
(Peer-Reviewed, Open Access, Fully Referred International Journal)
ISSN:2582-5208
www.irjmets.com
HOME
ABOUT
AUTHOR
INDEXING
FEE
ARCHIVES
CONFERENCE
FAQ
CONTACT
IMPACT FACTOR
6.752
For Author
Welcome to IRJMETS
Call For Paper
Submission Last Date : 31-Dec -2022
Review Status : 24 to 48 Hours
Paper publication : 4 hours
DOI Service Started
IRJMETS is a peer-reviewed, Open Access, low cost journal, Fast processing journal that publishes original research articles as well as review articles in several areas of engineering, science and technology for the enhancement of scientific research work. IRJMETS enables its readers to access the published articles
Latest Top News
Issue 12, December 2022

e-ISSN: 2582-5208
International Research Journal of Modernization in Engineering Technology and Science
(Peer-Reviewed, Open Access, Fully Refereed International Journal)
Volume:04/Issue:02/February-2022 Impact Factor- 6.752 www.irjmets.com

DETECTION AND QUANTIFICATION OF BLOOD CELLS USING IMAGE PROCESSING

Renuka D Pise*1, Prof. Pramod A Kharade*2

*1Student, Department Of Computer Science And Engineering, Bharati Vidyapeeth's College Of Engineering, Kolhapur, Maharashtra, India.

*2Professor, Department Of Computer Science And Engineering, Bharati Vidyapeeth's College Of Engineering, Kolhapur, Maharashtra, India.

ABSTRACT

The digital microscopy devices are a strong tool to research the dynamic molecular processes of living cells in human bodies as the commonly used wide field of fluorescence imaging lack the quantitative power and do not provide sufficient resolution to localize single copies of proteins precisely within mitotic structures to map their molecular architecture. We describe a contrast because the difference in luminance or color that makes an object is distinguishable. To collect the medical data of blood cells contrast within the color and brightness of the item and other objects within the identical field of view. Image enhancement is taken into account mutually of the basic processes in image analysis. The goal of contrast enhancement is to increase up the quality of an image to become more suitable for a selected application to count the cells and detect the cells. Image enhancement methods are proposed for various applications and efforts are directed to further increase the quality of the enhancement results and minimize the computational complexity and memory usage. As during this paper, an image enhancement methods supported threshold and rendering is studied. Using the inbuilt function of JAI we propose new advanced enhancement techniques.

Keywords: Contrast, Segmentation, Histogram, Rendering, Scaling, Threshold.

I. INTRODUCTION

Commonly people require to test their health details regularly, which has become an important need in every person's life. So it's essential to locate the fundamentals of blood cells in this today's era. The goal of such diagnosis is to obtain the disease from an analysis or to obtain in an accurate way or it may cause lot of loss for health and wealth also. In the existing detection, it is impossible follow large variation of blood cells and also get low quality of images and difficulties in getting real data in all processes. They used real microscopy images prepared in the laboratory which is a difficult and yet challenging task to identify, and the ground truth changed into determined by a laboratory expert [1]. Nearly 2.9 differences was calculated between the manual and automatic counting of red blood cells. Their method tolerated a degree of overlapping. But in cases with a high degree of blood cells, their approach tolerated a degree of overlapping, the iterative threshold method was unable to detect faint red cells. Here the detection keeps look on all the possibilities and get the most useful data. Detection and quantification of each blood cell pixels are checked to detect. The process where finding manually verifying and taking blood samples can be time consuming and too expensive as it is the reason of health issues[2]. To determine the same field is used both in the index and for sequencing the records in the normal range of contrast sensitivity and its determinants. As the difference in visual properties that makes an object distinguishable/darker or brighter from other objects and the background. In data of the real world, contrast analyses by the variation in the brightness and code color of the object and other objects within the same field of view [3]. Hence there is a need to design an accurate application where pathology can respond to faster data retrieval in less time. The proposed system uses a JAI technique for detecting blood cell analysis. JAI has in built function which will has been one of the best approaches to detect and analysis detection of blood cell image processing as it uses counting of cell ,its edges and its other features[4]. It uses Organization of Indexed files which is a technique that store the data file in which records can be accessed by means of an index.

If the same field is used both in the file of the index indicator file and for sequencing the records in the file content, such index where there use the primary key is called the primary index. The performance of such files is better for faster access of the result from the data which is collected. This system also find image rendering

e-ISSN: 2582-5208
International Research Journal of Modernization in Engineering Technology and Science
(Peer-Reviewed, Open Access, Fully Refereed International Journal)
Volume:04/Issue:01/January-2022 Impact Factor- 6.752 www.irjmets.com

HUMAN IRIS PATTERN RECOGNITION AND MATCHING SYSTEM FOR EXCEPTIONAL SECURITY IDENTIFICATION

Mahesh R Rokade*1, Prof. P.A.Kharade*2

*1Student, Department Of Computer Science And Engineering, Bharati Vidyapeeth's College Of Engineering, Kolhapur, Maharashtra, India.

*2Professor, Department Of Computer Science And Engineering, Bharati Vidyapeeth's College Of Engineering, Kolhapur, Maharashtra, India.

ABSTRACT

The goal of the venture is to carry out an open-source iris acknowledgment framework in request to confirm the asserted echibition of the innovation. The likelihood of observing two individuals with indistinguishable iris designs is viewed as around 1 in 1052 (population of the earth is of the request 1010). Not a single one-egged twins or a future clone of an individual will have a similar iris designs. The iris is thought of to be an inner organ since it is so very much ensured by the eyelid and the cornea from natural harm. It is steady over the long haul despite the fact that the individual ages. Iris acknowledgment is the most exact and quickest of the biometric confirmation techniques. Iris acknowledgment investigates the highlights that exist in the hued tissue encompassing the student, which has 250 focuses utilized for examination, including rings, wrinkles, and spots. Iris acknowledgment utilizes a standard camcorder framework and should be possible from further away than aretinal sweep. It can make a sufficiently exact enough estimation that can be utilized for identification purposes, not simply confirmation. The development tool used is MATLAB, and emphasis is on the software for performing recognition, and not hardware for capturing an eye image. The iris images were taken from IIT Delhi database, which was solely taken for research purpose.

Keywords: Biometric Recognition, Iris Recognition, Wavelet, Legendre Wavelet Filter And Gabor Wavelet Filter.

I. INTRODUCTION

The requirement for a solid method for a distinguishing proof and check framework has assessed numerous biometric acknowledgment frameworks. These biometric acknowledgment frameworks incorporate Fingerprint framework, facial acknowledgment framework iris acknowledgment framework and numerous more [1]. Among these acknowledgment frameworks, iris acknowledgments framework is accepted to be one of the most dependable and effective method for acknowledgment. Iris is dependable on the grounds that an individual can be validated from distances very much like in facial acknowledgment frameworks and the irises never change very much like fingerprints. The iris acknowledgment framework enjoys the two benefits the finger impression, and the facial acknowledgment has [2].

The sclera enjoys a benefit in that it very well may be caught utilizing a noticeable frequency camera [3]. Subsequently, applications which might include the sclera are wide running. The commitment of our work is the plan of a vigorous sclera acknowledgment framework with high exactness. The framework contains new sclera division and blocked eye identification techniques. The propose work an effective strategy for vessel improvement, extraction, and linearization. In the element extraction [4]and matching process[5]stages, we also foster a productive technique that is direction, scale, light, and distortion invariant.

Human acknowledgment frameworks utilizing vein designs for example have been examined utilizing the retina, palms, fingers, conjunctive vasculature, and sclera. The sclera can be characterized as the white and obscure external defensive piece of the eye [6]. It comprises of four tissue layers: episclera, stroma, lamina fusca and endothelium which encompass the iris.

The iris is the shaded tissue around the student. Six essential feelings by concentrating on looks. This has been utilized for further developing investigation, assessment mining and different assignments like grammatical form labeling.

The issue of settling character of an individual can be arranged into two kinds:

1. Verification

e-ISSN: 2582-5208
International Research Journal of Modernization in Engineering Technology and Science
(Peer-Reviewed, Open Access, Fully Refereed International Journal)
Volume:04/Issue:07/July-2022 Impact Factor- 6.752 www.irjmets.com

DIET MODELLING USING NUTRITIONAL REQUIREMENT ANALYSIS

Mahesh S. Petkar*1, Sameer S. Lokare*2, Anand L. Salunkhe*3, Ashutosh U. Nalawade*4, Ajay U. Thanekar*5, Prof. Sagar B. Patil*6

*1,2,3,4,5Student, Department Of Computer Science & Engineering , Bharati Vidyapeeth's College Of Engineering, Kolhapur, Maharashtra, India.

*6Assistant Professor, Department Of Computer Science & Engineering, Bharati Vidyapeeth's College Of Engineering, Kolhapur, Maharashtra, India.

ABSTRACT

Diet Modelling using nutritional requirement analysis is a system that enables individuals who want to maintain their bodies and want to get healthy diet plans. And also, this system provides a dietitian with an easy and accurate way to create their client's diet plan. Efforts in current health care practice to make health care more accessible, effective, and efficient through the use of information technology may include computer-based diet menu generation. While many such systems already exist, their focus is mainly on helping healthy individuals count their calories and monitor menu choices based on a predetermined calorie value.

Although these are useful in some ways, they are not suitable for monitoring, planning, and managing the dietary needs and requirements of patients. This paper presents a web-based application that simulates the process of menu suggestions according to the standard practice employed by dietitians.

Keywords: Diet, Modelling, Nutrition, Dietitian, Dietary Requirements, Nutritionist, Health Care.

I. INTRODUCTION

The "DIET MODELLING USING NUTRITIONAL REQUIREMENT ANALYSIS" is a system that is planning to be designed for Dieticians to create their client's diet plan and also for individual users or peoples who wants to get a healthy diet plan for their needs. We are analyzing the problems or difficulties the doctors are facing while creating the diet chart of the patient and we are planning to create a system that deals with the ongoing problems with the existing system, We are aiming to overcome that and provide a useful system to the user. And also, another existing system is designed only for dieticians and we want to create a system that can be used by the individual user also. This "DIET MODELLING USING NUTRITIONAL REQUIREMENT ANALYSIS" create the client's DIET plan. This project is mainly preferred for all types of people for creating their required DIET plan.

II. METHODOLOGY

We needed to find a way to develop a system which will help the Dietitian or Doctor to easily create a diet plan for client or an individual user to create diet plan for themselves as per requirement for their dietary needs and body requirements.

First Phase: -

Step 1:

At the start of the project, we needed to decide what project should we pick, at and from which language we develop our project. And which database should we use to handle complex data? After researching, and asking experts we decided to develop a website for dietitians and users to decrease their time to create a perfect diet plan for this we decide to use languages for coding HTML, JavaScript, PHP, and Angular JS, and the database we use MySQL.

Step 2:

In the second step of the first phase, we gathered the requirements of the project, decided what the workflow of the model is.

Second Phase: -

Step 3:


INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR.ORG)
International Peer Reviewed & Refereed Journal, Open Access Journal
ISSN Approved Journal No: E-ISSN 2348-1269, P- ISSN 2349-5138
Journal ESTD Year: 2014
Call For Paper - Volume 9 | Issue 4 | Month- November 2022
Read all new guidelines related publication before submission or publication.
Scholarly open access , Peer-reviewed, and Refereed, Impact Factor: 7.17, AI-Powered Research Tool , Multidisciplinary, Monthly, Indexing in all major database & Metadata, Citation Generator, Digital Object Identifier(DOI), UGC Approved Journal No: 43602(19)
HOME
IJRAR
EDITORIAL
FOR AUTHOR
CURRENT ISSUE
ARCHIVE
CONFERENCE PROPOSAL
SUBMIT PAPER ONLINE
Call For Paper November 2022
IJRAR Search Xplore - Search all paper by Paper Name , Author Name, and Title

IJRAR.ORG E-ISSN: 2348-1269, P-ISSN: 2349-5138

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

VISUALISING AND FORECASTING STOCK INDEX USING ANALYTICAL TOOLS

Saurabh Gonugade[1], Vaibhav Gavakar[2], Anil Gurav[3], Rushikesh Chavan[4], Amol koli[5], Prof. S. B. Patil[6]

[1,2,3,4,5] Student, Department of Computer Science and Engineering,
Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India
[6] Professor, Department of Computer Science and Engineering,
Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India

***Abstract*: The stock market is an important part of the economic system of all countries and is a major source of funding. Every day, millions of traders invest in exchanges. Most of these investors have lost money and others are profiting. However, looking at each trading day, the losses or profits are not completely consistent. The demand for stock price forecasts is so high that stock market analysis is needed. This project attempts to implement a machine learning approach for predicting stock prices. Machine learning is effectively used to predict stock prices. The purpose is to predict stock prices in order to make more informed and accurate investment decisions. We propose a stock price forecasting system that integrates mathematical functions, machine learning, and other external factors to achieve better stock forecasting accuracy and make profitable transactions.**

This project aims to weigh the effectiveness of forecasting algorithms on stock market data and gain general insights into this data through visualization to predict future equity behavior and the value-at-risk of each equity. It is said that, this project includes the concepts of data mining and statistics. This project makes use of NumPy, Pandas, and data visualization libraries. This is important in our case, as the previous price of the stock is important in predicting future prices. We have developed a model that predicts whether the price will rise or fall while predicting that the actual price of the stock will rise.

***Keywords*-** Stock Market Prediction, NumPy, Pandas, Machine Leaning, and Tweeter API, Web APP.

I. INTRODUCTION

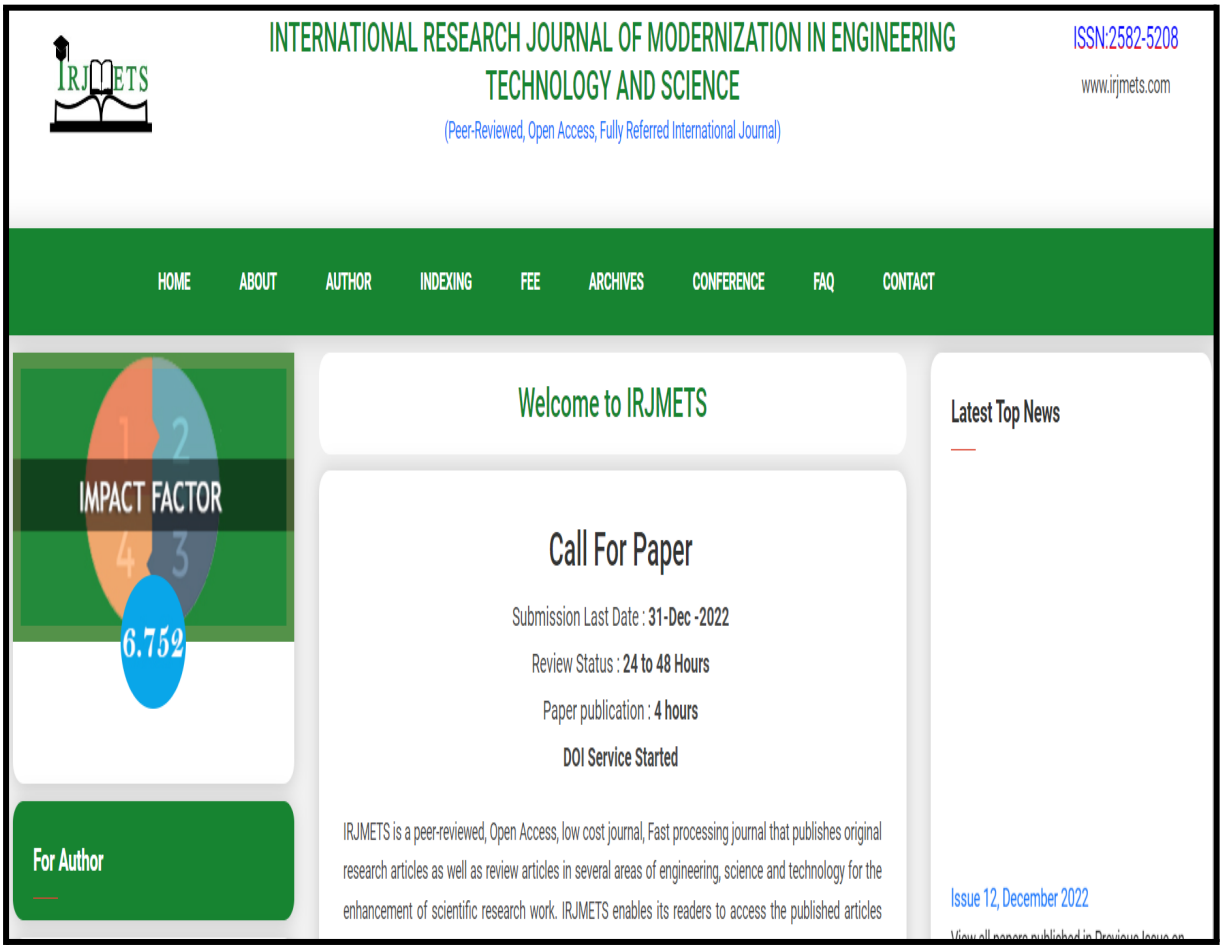
Predicting how the stock market works is one of the most difficult tasks. There are numerous factors involved in the forecast. Physical factors and psychological, rational and irrational behavior. All of these aspects combine to fluctuate stock prices, making them extremely difficult to predict with high accuracy.

Can you pioneer machine learning in this area? Machine learning techniques can use features such as the latest company announcements and quarterly sales to reveal patterns and insights you've never seen before, using these. You can definitely make accurate predictions. Reduce applications as much as possible to avoid errors when entering data. Also, if you enter invalid data, an error message will be displayed. No formal knowledge is required for the user to use this system. Therefore, it is user-friendly, and the visualization and prediction of stock indexes using analysis tools proves that an error-free, safe, reliable and fast system can be realized. This helps user's focus on other activities rather than focusing on records management. Therefore, it helps organizations make better use of their resources.

II. LITERATURE REVIEW

Stock price prediction using machine learning is present to estimate future stock value and machine learning technique like LSTM for existing work. This machine learning algorithm is designed to provide the best prediction result of the future stock price. In this proposed system, LSTM is able to capture changes in stock price behavior over the specified period.

Design a machine learning based normalization for stock price prediction. The dataset used for the analysis was selected from Yahoo Finance. It consists of approximately 9,000 records of the requested share price and other relevant data. The data reflected the stock price at specific time intervals for each day of the year. It contains various data like date, symbol, open price, close price, low price, high price and volume. Data for only one company were considered here. All data was available in a CSV file, which was first


INTERNATIONAL RESEARCH JOURNAL OF MODERNIZATION IN ENGINEERING TECHNOLOGY AND SCIENCE
(Peer-Reviewed, Open Access, Fully Referred International Journal)
ISSN:2582-5208
www.irjmets.com
HOME
ABOUT
AUTHOR
INDEXING
FEE
ARCHIVES
CONFERENCE
FAQ
CONTACT
IMPACT FACTOR
6.752
For Author
Welcome to IRJMETS
Call For Paper
Submission Last Date : 31-Dec -2022
Review Status : 24 to 48 Hours
Paper publication : 4 hours
DOI Service Started
IRJMETS is a peer-reviewed, Open Access, low cost journal, Fast processing journal that publishes original research articles as well as review articles in several areas of engineering, science and technology for the enhancement of scientific research work. IRJMETS enables its readers to access the published articles
Latest Top News
Issue 12, December 2022

e-ISSN: 2582-5208
International Research Journal of Modernization in Engineering Technology and Science
(Peer-Reviewed, Open Access, Fully Refereed International Journal)
Volume:04/Issue:06/June-2022 Impact Factor- 6.752 www.irjmets.com

ALPHA: THE DESKTOP ASSISTANT

Shrinivas Kulkarni*1, Praveen More*2, Varad Kulkarni*3, Vaishnavi Patil*4, Harsh Patel*5, Mrs. Pooja Patil*6

*1,2,3,4,5Student , Department of CSE, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

*6Project Guide, Department of CSE, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

ABSTRACT

The advancement in technology over time has been unmeasurable. In such an era of advancement if people are still struggling to interact with their machine using various input devices then it's not worth it. For this reason, many voice assistants were developed and are still being improved for better performance and efficiency. The main task of a voice assistant is to minimize the use of input devices like keyboard, mouse, touch pens, etc. This will reduce both the hardware cost and space taken by it. This idea is inspired from 'Jarvis' of the marvel universe movie IRON MAN . The tasks that we perform in our daily life which are majorly common in our everyday use. The motivation behind this is to make our personal life more comfortable along with maintaining the creativity and the productivity in professional life. We worked hard to make this idea turn into a solution or a tool that really helps us in our daily life.

I. INTRODUCTION

Nowadays our life has become smarter and interlinked with technology. We already know some voice assistance like google, Siri, alexa. This project helps you in use some of the desktop features which are Chrome, basic OS handling operations, and controlling the mouse. This project works on voice input and gives output through voice and displays the text on the screen. These personal assistants can be easily configured to perform many of your regular tasks by simply giving voice commands. Google has popularized voice-based search that is a boon for many like senior citizens who are not comfortable using the keyboard. The main agenda of our voice assistance is to make people smart and give instant results through desktop.

II. METHODOLOGY

2.1 Speech Recognition module

Speech recognition is the process of converting spoken words to text. Python supports many speech recognition engines and APIs, including Google Speech Engine, Google Cloud Speech API, Microsoft Bing Voice Recognition and IBM Speech to Text. The system uses Google's online speech recognition for converting speech input to text. The speech input which is obtained from user texts from the specially organized on the computer network server at the information center from the microphone is temporarily stored in the system which is then sent to Google cloud for speech recognition. The equivalent text is then received and fed to the central processor.

2.2 Python Backend

The python backend gets the output from the speech recognition module and then identifies whether the command or the speech output is an API Call and Content Extraction. The output is then sent back to the python backend to give the required output to the user.

2.3 API calls

API stands for Application Programming Interface. An API is a software intermediary that allows two applications to talk with each other. In other words, an API is a messenger that delivers your request to the provider that you're requesting it from and then delivers the response back to you.

2.4 Content Extraction

Content extraction (CE) is the task of automatically extracting structured information from unstructured and/or semi-structured machine-readable documents. In most cases, this activity concerns processing human language texts using natural language processing (NLP). Recent activities in multimedia document processing like automatic annotation and content extraction out of images/audio/video could be seen as context extraction

e-ISSN: 2582-5208
International Research Journal of Modernization in Engineering Technology and Science
(Peer-Reviewed, Open Access, Fully Refereed International Journal)
Volume:04/Issue:06/June-2022 Impact Factor- 6.752 www.irjmets.com

E-TRAINING AND PLACEMENT MANAGEMENT SYSTEM

Samrudhi Padwal[*1], Samruddhi Ghorpade[*2], Prof. P.R. Patil[*3], Manasi Patil[*4], Shraddha Biraje[*5], Sapana Salunkhe[*6]

[*1,2,4,5,6]Student, CSE, Bharati Vidyapeeth's College Of Engineering, Kolhapur, Maharashtra, India.

[*3]Project Guide, CSE, Bharati Vidyapeeth's College Of Engineering, Kolhapur, Maharashtra, India.

ABSTRACT

The Project Named "E-training and placement management system" is a student, campus Information system. It is a management system which is supported by database. TPO has a major role in every college in which most of the work till now is carried out manually. The goal is to automate the Training and Placement procedure in colleges. This application reduces manual work and maximize the optimization, abstraction and security. This is a web application will help students as well as the administrator authority to carry out each and every activity in campus hiring.

This application can be used for the Training and placement cell of the college to manage the student information regarding placement. Students will able to view eligibility criteria based on their percentage for the up-coming placement drives and they can access technical and Questions regarding particular company. It has the facility to maintain the details of the student and reducing the manual work. Training and Placement Officer (TPO) is able to view information about student and collect their resumes and so many ad-on functionalities. This system can be accessed through proper login.

Keywords: TPO, Placement, Student, College, Application.

I. INTRODUCTION

In today's world everyone wants things to be done in a single click but still Training and Placement system is managed manually. The aim is to automate the Training and Placement management system. This application provides the facility of maintaining the details of the students and also keeping them updated. Administrator in the system is able to search and view information about students. Use of the Internet to enable Placement Coordinator to manage the placement process with the active involvement of the students. This has leads to development of unique web-based training and placement management system for colleges.

E-training and placement management system provides information about placed students, campuses for which students have applied, latest campus drives and the placements they offer so that students may view and assess their opportunities and also, there is a practice test section to make students feel confident about their campus preparations. Online training and placement management system is an application to facilitate students to register and fill the application form. The users can access easily and the data can be retrieved in no time. In the student's login, they can give personal details, educational qualifications, and professional skills. The placement details of the placed students will be provided by the administrator.

The TPO plays an important role in this web application. The department TPO will create student account and provide them login details. Principal will keep record of student's performance in campus and the count of placed and unplaced students so that they can advise students regarding placement and drives. This project will benefit student's participation and interaction with faculty as well as TPO so that colleges can achieve lot of success in placements. This web application lets students to upload their resume, personal and educational details. Through this system students can interact with the help of chat box. During upcoming campuses students can practice aptitude tests assigned by their respective faculties. This system will definitely make training and placement management easier for the TPO, Department coordinators, principal, and faculty and of course students. With this application colleges will have well-developed website to inform their students of new opportunities and how to prepare for campus and get a work integrated learning experience.


iJRASET
International Journal For Research in
Applied Science and Engineering Technology
INTERNATIONAL JOURNAL
FOR RESEARCH
IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY
Volume: 10 Issue: VII Month of publication: July 2022
DOI: https://doi.org/10.22214/ijraset.2022.46047
www.ijraset.com
Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 10 Issue VII July 2022- Available at www.ijraset.com

Seismic Behaviour and Design of RC Shear Wall using ETABS software

Mr.Prasad J.Jadhav[1], Mr.Vikramsinh S. Tiware[2], Mr. Vivek V. Mane[3], Mr.Nitish A.Mohite [4], Mr. Siddhesh Tiwale S[5]
[1, 2, 3, 4]*Assistant Professor,* [5]*B.Tech. Student,Department of Civil Engineering, BVCOE, Kolhapur*

Abstract: ***The present paper shows seismic behavior of building under the action of earthquake load [bhuj earthquake] by performing time history analysis. Nowadays buildings with shear walls are more popular than buildings without shear wall in earthquake prone areas due to its resistance during earthquake. In this project G+10 RCC building is considered for the structural analysis for zone III and suitable load combination. The purpose of this study is to find the prime location of shear wall and then investigate the effectiveness of best shear wall for the RCC structure. The structure is analyzed for earthquake in the type of structural system using ETABS software. Wall which is mainly designed to resist lateral forces in its own plane is called shear wall Shear wall are mainly flexural membrane which are specially designed to resist lateral forces which are caused by seismic forces and other forces. Shear wall starts from foundation level and should be continuous throughout of the building.***
Keywords: RCC building, ETABS, Time History Analysis, Shear wall, Seismic analysis

I. INTRODUCTION

A shear wall is a structural component provided to the multi storied or tall buildings or ordinary buildings in high wind velocity areas. These walls usually begin from the foundation level, along the length and width of buildings. Their thickness can be above 150 mm or below 400 mm in tall buildings and they are like vertical-oriented wide beams that carry the earthquake load towards the foundation.

Shear wall is a concrete wall made to resist lateral forces acting on tall buildings. Shear walls are vertical elements of the horizontal force resisting system. When shear walls are designed and constructed properly, they will have the strength and stiffness to resist the horizontal forces. Properly designed and detailed buildings with shear walls have exhibited very good performance during the past earthquakes. Just like reinforced concrete (RC) beams and columns, RC shear walls also perform much better if designed to be ductile. Overall geometric proportions of the wall, types and amount of reinforcement, and connection with the other elements in the building help in improving the ductility of walls.

In building construction, a rigid vertical diaphragm capable of transferring lateral forces from exterior walls, floors, and roofs to the ground foundation in a direction parallel to their planes. Examples are the reinforced-concrete wall or vertical truss. Lateral forces caused by wind, earthquake, and uneven settlement loads, in addition to the weight of structure and occupants, create powerful twisting (torsional) forces. These forces can literally tear (shear) a building apart. Reinforcing a frame by attaching or placing a rigid wall inside it maintains the shape of the frame and prevents rotation at the joints. Shear walls are especially important in high-rise buildings subject to lateral wind and seismic forces.

Need of the Shear Wall:

While columns and load-bearing walls keep buildings standing up, carrying the compression load of the structure down to its foundation, the shear wall is what keeps structures from blowing over, resisting the lateral forces of wind and seismic activity. Almost all houses have external shear walls, but internal shear walls are typically found only in larger houses and high-rise buildings subject to lateral winds and seismic forces. The tall the building, the greater the need for internal shear walls and a lateral force resisting system. Most homes and buildings in high-wind and earthquake-prone regions require exterior shear walls. However, larger houses and high-rise structures also need interior shear walls to protect against lateral wind and seismic forces.

II. OBJECTIVES

1) To model and analyze G+10 frame structure having different location of shear wall in the structure using ETABS software.
2) Comparative study of seismic behaviour of building with shear wall and without shear wall by performing nonlinear time history analysis.
3) To find lateral displacement in x and y direction
4) To study the displacement of the building.


International Journal of Innovative Research in Technology
(An International Open Access , Peer-reviewed, Refereed Journal)
IJIRTEXPLORE- Search Thousands of research papers
Call For Paper November 2022 Last Date 25 - November 2022
Impact Factor 7.376 (Year 2021)
ISSN: 2349-6002
ESTD Year: 2014
UGC approved journal no 47859
HOME
EDITORIAL
AUTHORS
CONFERENCE
SUBMIT PAPER
CURRENT
ARCHIVE
CONTACT
Indexing [Impact Factor: 7.376]
Conference Alert • COMTECH Details • NCSST-2021
Journal Details
ISSN (Online): 2349-6002
Latest 2021 year impact factor: 7.376
Frequency: Monthly
(12 issues Annually)
Track your paper
Download Paper Format
Submit Paper
Last Date for Volume 8 Issue 10
25 November 2021

© July 2022 | IJIRT | Volume 9 Issue 3 | ISSN: 2349-6002

Behaviour of Compressive Strength of M20 Grade Concrete using Ruber Crumb, Magnetized and Normal Water

Mr. P.J. Jadhav[1], Mr. V.S. Tiware[2], Mr. V.V. Mane[3], Mr. D.B. Mane[4], Ayus Admaik[6], Gaurav Mahajan[7], Gaurav Sawant[8]

[1,2,3]*Assistant Professor, Civil Dept. BVCoEK*

[4]*Assistant Professor, Civil Dept. DYPCET*

[6,7,8]*UG Student, Civil Dept. BVCoEK*

***Abstract*— Water plays an important role in the concrete preparation. It plays an important role in workability and strength of concrete. A new technology known as magnetized water is used to increase the workability and strength of concrete. At the same time, after pure water is magnetized, we should inject immediately the magnetized water into the sample baths of the instrument to measure their properties because the time, in which the magnetization effect can be retained, is finite. The experiments should be repeated about 2-3 times for their credibility. Hence normal water concrete with crumb rubber shows nearly same strength compared to normal water concrete, so waste can put to work. This paper aims to comparative study of M20 grade concrete with Crumb Rubber and magnetic water. The literature study showed that there can be improvement in compressive strength of concrete when it is used with magnetic water. the results here show the compressive strength of concrete can be considerably increased.**

Keywords: Magnetise Water, Rubber Crumb, Compressive strength.

INTRODUCTION

In this research study, the effect of magnetized water on compressive strength of concrete was studied, in order to obtain operative concrete with high resistance and at a lower cost. Data were collected from previous studies and research. Compressive strength tests were carried out and it was found out that concrete produced by the magnetic technology is easy to operate without affecting the compressive resistance of concrete. It was also found that magnetized water increases the compressive resistance of concrete while cement is reduced up to 25%. As considering the crumb rubber huge amount of waste can be brought into converting factor as comparing on going global wastages solution. Urbanization and the day-to-day exponential increase in the number of automobiles has increased the usage of rubber. As an attempt to reuse this waste, many experimental studies are carried out using it as a filler material in concrete industry. Water is an important ingredient of concrete as it actively participates in chemical reaction with cement. Since it helps to form strength giving cement gel, the quantity and quality of water is required to be studied. So, there is a need to do the necessary research on modification of water to increase the strength and quality of concrete.

Hence, it can be expected that partial replacement of natural fine aggregates with recycled fine aggregates might not decrease the strength to a larger extent. To overcome above problems with recycled aggregates concrete, now a day's electromagnetic water is used to manufacture the concrete by some researchers. Electro-magnetic water concrete has been recently developed by using electromagnetically treated water instead of potable water in concrete. Based on the literature survey, it is observed that, electro-magnetized water is found to increase compressive strength of concrete by 20% to 30% Based on the above scenario and literature study, present study is focused on the experimental investigation to check the effect of crumb rubber on concrete, comparison of normal water concrete and electromagnetic water concrete. Ultimately, it is expected that the use of rubber crumb and magnetic water will help to increase the strength of concrete and enhance the re-centring ability of concrete. Recycled fine aggregates will be used for re-using the demolished waste. While

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 10 Issue VIII August 2022- Available at www.ijraset.com

A Literature Review On Use Of Rice Husk Ash As Cementation Material

Mr.Satish S.Kotwal[1], Mr.Vidyanand S.Kadam[2], Mr. Mayur M. More[3], Mr Ananda S Patil[4], Mr.Nitish A.Mohite[5], Mr.Mane V. V[6]

[1, 2, 3, 4, 5, 6] *Assistant Professor, Department of Civil Engineering, BVCOE, Kolhapur*

Abstract: ***The cement has been the major building material in today's construction because of its binding and high compressive strength properties. Beside this, it also causes release of greenhouse gas carbon dioxide which causes global warming and other environmental issues. Researches were done to decrease the carbon footprint and use of waste material to be used in construction. The rice husk ash is waste materials which have shown promising results if replaced with cement in production of concrete. Previous researches done by researcher's shows that it enhances the corrosion resistance capability of produced concrete with RHA and some increase in compressive strength. In this literature review is related to increase in strength of concrete depending on age of concrete & percentage of RHA addition. Keywords: Rice Husk ash, Waste materials, Concrete, Cementation material, RHA, compressive strength***

I. INTRODUCTION

Concrete is widely and globally used throughout the history of humankind. Concrete is a mixture of sand and coarse aggregate combined together by a hardened paste of cement and water. The increased use of concrete is going to grow the demand for its ingredients' resources (cement, sand, and gravel). The high rate of concrete constituents is increasing rapidly and hence there is a requirement for an unconventional material that is low-cost and readily presented that will also give a similar or greater strength when used for concrete. Cement is one of the constituents of concrete which is costly and its production releases large amounts of CO_2 during its manufacturing. Manufacturing one tonne of cement releases about one tonne of CO_2 in the atmosphere while 1.6 tonnes of natural resources are required to produce about one tonne of cement. In many studies the cement is partially replaced by agricultural/industrial waste such as glass powder, sugar cane bagasse ash, rice husk ash (RHA), blast furnace slag, maize cob ash, millet husk ash, fly ash etc. in order to reduce cost, waste and CO_2 emissions while these resources are easily available.

II. OBJECTIVE

The main objective of this paper is to study Rice Husk Ash (RHA), it's property and potential to be used as a replacement of cement in concrete production

III. LITERATURE REVIEW

Following are the critical literature reviews on various papers based on experimental research work on use of Rice Husk Ash.D.V.

A. Reddy, Ph. D, P.E. and Marcelina Alvarez, B.SFourth LACCEI International Latin American and Caribbean Conference for Engineering and Technology (2006)

Detailed, the use of RHA will not only concrete production of better quality and low cost, but also reduce carbon dioxide (CO2) emissions from cement production. The partial replacement of cement by RHA will result in lower energy consumption associated with cement production. The potential market for rice husk energy systems and equipment has been studied by Velupillai et al. (1997). The reference also addresses economic development, urbanization, living standards, stricter environmental regulations, and consolidation in the rice milling industry is the reduction of certain traditional uses balls, and creating new opportunities for the use of the envelope. He discusses the potential use of rice husk Ash (RHA) as a cementations material in concrete mixes. RHA is produced by burning rice husk which is a by-product of rice milling. The ash content is about 18 to 22% by weight of rice hulls. Research has shown that concrete containing RHA in partial replacement of cement concentrations of 10% to 20% by weight of cement has superior performance characteristics compared to normal concrete. In addition, the use of ORS would result in a reduction in the cost of concrete construction, and the reduction of the greenhouse effect on the environment.

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 10 Issue V May 2022- Available at www.ijraset.com

A Literature Review on Beam Column Joints with Different Loading Condition and Methods of Strengthening

Satish S. Kotwal[1], Vidyanand S. Kadam[2], Mayur M.More[3], Ananda S Patil[4], Nitish A Mohite[5]
1, 2, 3, 4, 5 Assistance Professor, Bharati Vidyapeeth's College of Engineering, Kolhapur,

Abstract: ***The beam–column joint is measured as the most important zone in a reinforced concrete moment resisting frame. It is subjected to large forces during earthquake and its behaviour has a major influence on the response of the entire structure. As a result, a great attention has to be paid for good detailing of such joint. The absence of transverse reinforcement in the joint, insufficient development length for the beam reinforcement and the inadequately spliced reinforcement for the column just above the joint can be considered as the most important causes for the failure of the beam–column joint under any unexpected transverse loading on the building. The recent earthquakes revealed the importance of the design of reinforced concrete (RC) structures with ductile behaviour. Ductility can be described as the ability of reinforced concrete cross sections, elements and structures to absorb the large energy released during earthquakes without losing their strength under large amplitude and reversible deformations.***

I. LITERATURE REVIEW

A. Said M. Allam , Hazem M.F. Elbakry , Israa S.E. Arab(2018)

The joints between beams and columns are crucial zones in a reinforced concrete moment resisting frame. The behaviour of such joints greatly influences the strength and ductility of the overall frame. In this research, analysis of three-dimensional numerical models of exterior reinforced concrete beam-column joints under monotonic loading was performed using the finite element ABAQUS package.

Concrete and reinforcing steel material nonlinearities, as well as bond characteristics between reinforcing bars and surrounding concrete were considered in the analysis. A parametric study involving thirty joint models was conducted to examine the influence of concrete strength, column axial load, joint stirrups and shape of the beam top reinforcement on the beam tip load and displacement capacities.

The concrete dimensions and reinforcement of the studied models were chosen to ensure the occurrence of joint failure. The use of straight bars for beam top reinforcement resulted in generally lower ultimate loads than those obtained with L- and U-shaped bars. Similar joint behavior was demonstrated for the cases of using Land U-shaped beam top reinforcement.

B. Jawed Qureshi, Dr. Yashida Nadir, Shaise K John(2020)

Presented are test results from eight full-scale pultruded FRP beam-to-column joint subassemblies. Moment-rotation behaviour, failure modes, joint classification and load enhancement due to semi rigid end conditions are discussed. Testing is divided in two series: first had FRP beam-to-steel column joints and second FRP beam-to-FRP column joints. The joints are either flange and web cleated or flange cleated only.

The connection method is bolting or 'hybrid' combining both bolting and bonding. Test parameters include effects of adhesive bonding, column flexibility, cleat material and joint configuration. Bolted and bonded joints not only increased moment resistance but stiffness as well. Using steel cleats instead of FRP resulted in a 50% increase in the moment resistance. Four failure modes, shear-out failure, adhesive debonding with shear-out failure, tensile tearing of the column flanges from the web and de lamination cracking of cleats were observed. Use of adhesive increased both moment capacity and rotational stiffness, but it reduced the maximum rotation capacity. Bolted and bonded joints failed in a brittle manner due to adhesive failing in tension and shear, and the failure transferring to the bolted region. There was 60% increase in moment capacity for FRP beam-to-steel column joints and 20% for FRP beam-to-FRP column joints. While industry practice of using adhesive alongside bolting should be continued, any improvement in either moment or rotational stiffness should be used cautiously.


Crossref
Member
CiteFactor
UGC Care Journal
ISSN: 2582-3930
Impact Factor: 7.185
International Journal of Scientific Research in Engineering and Management
Home
Current Issues
Past Issues
For Authors
Pay Online
Editorial Board
About Us
Contact Us
IJSREM
Impact Factor : 2022: 7.185
2021: 6.714
2020: 6.049
2019: 5.713
2018: 5.109
Papers Published : 4927+
Submissions Received : 7624+
Papers Accepted : 5187+
Acceptance % : 64.62 %
Authors : 9154
Subject Area : 43
Countries : 27
SUBMIT RESEARCH PAPER
SUBMIT PAYMENT PROOF
Manuscript Template
Further More
Terms and Conditions
International Journal of Scientific Research in Engineering and Management, Welcomes research papers, case studies, survey papers, academic project works, scholarly articles, academic articles, original or extended version of previously published papers in conferences, scholarly journals, and basic advances in the fields of Engineering, Science, and Management.
IJSREM provides an open access forum for scientists, scholars, researchers and engineers to exchange their research work, technical notes & surveying results among professionals throughout the world in e-journals publications.
Papers reporting original research or extended versions of already published conference/journal papers are all welcomed. Papers for publication are selected through peer review to ensure originality, relevance, and readability.
IJSREM ensures a wide indexing policy to make published papers highly visible to the scientific community. IJSREM is part of the eco-friendly community and favors e-publication mode for being an online 'GREEN journal'.
All papers submitted to the Journal will be blind peer-reviewed. Only original articles will be published. The papers for publication in The International Journal of Scientific Research in Engineering and Management are selected through rigorous peer reviews to ensure originality, timeliness, relevance, and readability. All research articles submitted to International Journal of Scientific Research in Engineering and Management should be original in nature, never previously published in any journal or presented in a conference or undergoing such process across the globe.
Call for Papers - Dec, 2022
Volume 6 Issue 12 - Dec, 2022
Submission Last Date
31st December, 2022
Status Notification - 1 Day
Final Publication - 1 Day
Submit Paper
SUBMIT RESEARCH PAPER
SUBMIT PAYMENT PROOF
CERTIFICATE OF INDEXING (SJIF 2022)

International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 06 Issue: 07 | July - 2022 Impact Factor: 7.185 ISSN: 2582-3930

Identification of flood control measures for Kolhapur city

Tiware V.S., Mane V.V.[1], Mane A.S., Matkar A.V., Sangaonkar P.P., Botre R.R., Patil O.P.[2]

[1]Assistant Professor Civil Dept, BVCoEK
[2]Student Civil Dept, BVCOEK

Abstract - During the month of July and August 2019 Kolhapur Districts in Krishna Sub- basin experienced extreme floods for long duration. According to reports 16.5 lakh cr economical losses had been reported. According to reports climatic changes is one of the factors for nature calamities over the years, indiscriminate pursuit of so-called development had reduced the capacity of catchment area to hold, store and absorb the rainwater. [1]

In this research, the area considered is around 10 sq.km (Appro.) which includes the villages as; Nigave Dumala, Vadanage, Kasaba Bawada. To come up with achievable adaptive measure with watershed management for this we did Topographical. Analysis for our sub-watershed by using Curve Number Method.

Completion of mathematical check of proposed hypothetical work and hydrological data and analysis of data pre-solution and post-solution. On the bases of the study we suggested some watershed structures like movable barrier, farm pond and percolation pond. Depending on capacity of the structure we can reduce 43% of total discharge from the sub-water shed which is causing flood near Kolhapur city.

Key Words: flood control measures, Curve Number method.

1.INTRODUCTION

During the months of July and August 2019, Sangli and Kolhapur districts in Krishna sub basins experienced extreme floods for long durations. Heavy losses to life, property and crops etc. had been reported. Different opinions at various levels were put forth concerning these flood situations faced by Sangli and Kolhapur districts. Floods of 2005 and 2006 were also noteworthy. However, the 2019-2021 flood situations were comparatively much more severe which lasted more than a week and losses experienced were also on a higher scale. Itis therefore necessary to find out different ways to counter flooding, in-depth analysis and other reasons behind the flood situation to prevent the repetition of such unfortunate events in future.

Flood devastation is increasing in this region due to rapid increase in the population and human activities. In 2005, 57 villages were heavily affected by flood and 27 villages were completely marooned by flood water. During that period 40,000 people were shifted to relief camps and 26 human casualties were reported. Agricultural area of 520 sq.km of Kolhapur district was also inundated as pr state government's report. [2]

In the 2019, India faced a series of floods that affected over thirteen states in late July and early August 2019 due to excessive rains. At least 200 people died and about a million people were displaced. Karnataka and Maharashtra were the most severely affected states. People died but many were rescued with the help of the Indian Navy. It was the heaviest monsoon in the last 25 years. More than 1600 people died between June to October 2019. Thirteen states of India were affected by floods due to heavy rains in July–September 2019. News reports later stated that there were 500 people missing and 1000 were killed with many people losing their homes.

According to preliminary estimates, losses to public and private properties are over RS.4,000 crore (RS.53,88,00,000). Losses due to flooding in Kolhapur and Sangli are 700 crore (RS.94,290,000). Electricity infrastructure worth 1,200 crore (RS.16,16,40,000) has been damaged, while damage to roads and bridges is over 1,500 crore (RS.202,050,000). Crops across 338,000 hectares have been damaged in western Maharashtra and Konkan. The state relief is expected to cover all affected elements by widening the scope of the set norms. Maharashtra is now dealing with twin disasters, i.e., the floods in the midst of the ongoing pandemic. The floods have posed a grave threat to the healthcare of patients who are being treated in hospitals. [1]

At present, 133 villages are prone to flooding. The problems related to flooding have greatly increased in the Panchganga basin and there is need ofeffective modelling to understand the problem and to mitigate its disastrous effects. The main limitation of flood risk analysis is the generation of accurate terrain information and identification of inundated areas during the event. Cartosat stereodata with 2.5 m resolution can only provide vertical accuracy up to 6 m. The main objective of the present study is to identify potential flood risk in the areas of Panchganga river using Curve Number Method.

According to reports climatic change is one of the factors for natural calamities, over the years indiscriminate pursuit of so-called development has reduced the capacity of catchment areas to hold, store and absorb rain water. Climatological Changes and Abnormal Rainfall Pattern Formation of severe cyclones over Arabian sea leading to persistent and simultaneous occurrence over large spatial areas, of heavy precipitation in short duration, in the catchments of river Krishna and its tributaries, both in dam and free catchments. Absence of flood absorption capacities in reservoir planning of existing dams. At the time of project planning, the reservoirs are never planned with the provision of

International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 06 Issue: 07 | July - 2022 Impact Factor: 7.185 ISSN: 2582-3930

ROAD INTERSECTION RE-DESIGN

Bhokare Pooja A[1], Figueredo Priya K[2], Mohite Nitish A[3] Nikam Saurabh. R[4], Kamble Sushant. P.[5], Kamble Suraj. B[6], Padalkar Satyajeet. S.[7] ThombareDiptesh D[8]

[1]Bhokare Pooja A , Department of Civil Engineering, Bharati Vidyapeeth's College Of Engineering Kolhapur
[2]Figueredo Priya K , Department of Civil Engineering, Bharati Vidyapeeth's College Of Engineering Kolhapur
[3]Mohite Nitish A , Department of Civil Engineering, Bharati Vidyapeeth's College Of Engineering Kolhapur

---

Abstract: This project evaluates issues connected with vehicular movement moving through urban road at intersection. In cities like Kolhapur, which facing many problems such as frequent occurrence of traffic Congestion which result in delay, loss of time, increasing fuel consumption, increasing noise pollution and frequent interruption in traffic flow. Maulicha Putla is one of the busiest intersection in Kolhapur. This intersection faces many problems such as to traffic, collision of vehicles, long queue of number of vehicles due to traffic jam is created improper handling of traffic in peak hour. Improper location of central island (Maulicha Putla) causes there is no use of central island, due to this improper flow of traffic created. Vegetable Market, Bus stand, petrol pump are near to intersection due to this the abundant traffic is approaching to the intersection, so various problems created at intersection. Aim of this is to study of traffic problems rotary intersection at Maulicha Putla, which include site investigation (Pilot survey), measurement present geometry of intersection, followed by traffic volume count which is based onvideo graphic method, data collected at peak hours and volume conversion into PCU value (Passenger Car Unit).

Key words: Central island, peak hour, congestion, flow rate, traffic volume, capacity

1. INTRODUCTION:

Population in the India is increasing tremendously and this is leading to traffic problem as, all people nowadays have started purchasing their own vehicles. This has led the city to be congested on road and on intersection. The traffic at the maulicha putla intersection coming from six roads such as Udyam Nagar Road A, Shahu mill Road B, Rajarampuri1 Road C (one way) road towards intersection, Rajarampuri2 Road D, Ciber Road E, Pratibha Nagar road F. In that the three major roads which have the abundant traffic observed i.e Road A, B, E Along with the Public transport runs the private transport whose number is increasing day by day. Flow of traffic on lane. The study area is within the Rajarampuri Road area of Kolhapur City. Kolhapur is one of the cities of Maharashtra having area 66.82 km2 with population 635000 (census 2022). Growth in percentage of vehicle in 2015-16 (9.06%), 2016-17 (31.54%),2017-18(18%). The rapid growth of transportation activities causing acute traffic problem particularly at intersection due to mix complex flow pattern. It is important to design regulation system for this rotary because efficiency of operation, safety, speed, capacity is directly

International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 06 Issue: 08 | August - 2022 Impact Factor: 7.185 ISSN: 2582-3930

Study of public attitude towards household waste management in selected rural area in Kolhapur District.

Bhokare Pooja A [1], Figueredo Priya K [2], Mohite Nitish A [3], Bhurale. Shubham. P [4], Shaikh. Sohil. K. [5], Sutar Narpat B [6], Sutar Rushabh. J. [7], Tepugade Ganesh B [8]

[1] *Bhokare Pooja A , Department of Civil Engineering, Bharati Vidyapeeth's College Of Engineering Kolhapur*

[2] *Figueredo Priya K , Department of Civil Engineering, Bharati Vidyapeeth's College Of Engineering Kolhapur*

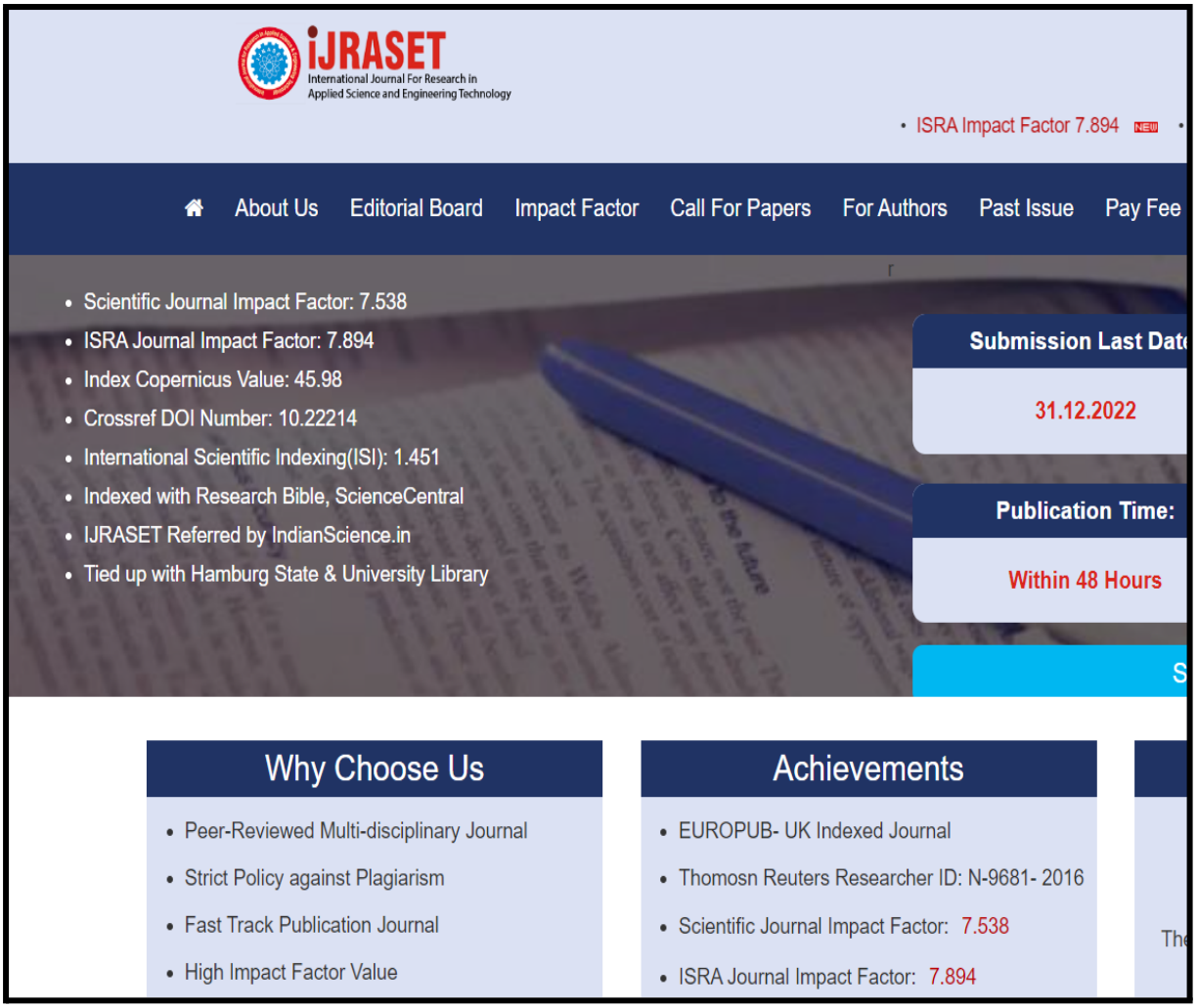
[3] *Mohite Nitish A , Department of Civil Engineering, Bharati Vidyapeeth's College Of Engineering Kolhapur*

ABSTRACT: One of the frightening issues in modern life is the collection and disposal of municipal solid trash. The ineffective and improper methods of disposing of solid waste cause aesthetic blights, serious risks to public health, such as air pollution, accident risks, and an increase in rodent and insect vectors of disease, have a negative impact on land values, cause public nuisance, and otherwise obstruct community life and development. Unattended SW invites rodents, flies, and other animals, which in turn spread infections. Wet SW also decomposes and emits a foul stench. Health issues result from these unclean circumstances. Therefore, it's critical to manage SW to reduce its negative effects on human health and the environment. Development of understanding is required for solid waste management (SWM).Solid garbage dumped at a dump site serves as a current indicator.Current research focuses on the scientific assessment of public opinion regarding solid waste management and investigation of potential solutions which are practicable in local context. The rural community of Kandalgaon in the Maharashtra state, close to Kolhapur, was chosen as the subject region for this investigation. The primary accomplishments of the programme are the survey of village residents, calculation of the potential for tentative garbage creation, and exploration of alternative solid waste management options.

Key words: Solid Waste, Dumping, Surveying, Landfilling

1. INTRODUCTION:

The collection and disposal of municipal solid waste is one of the grave issues facing modern society. The amount of municipal solid garbage produced every day in the nation is estimated to be over 100000 MT. Solid trash should be disposed of properly and efficiently to avoid major risks. The solid trash dumped at the disposal site serves as a current indicator. It is crucial to do this by reducing the amount of solid waste that is produced. Some disease and


iJRASET
International Journal For Research in Applied Science and Engineering Technology
• ISRA Impact Factor 7.894 NEW •
About Us
Editorial Board
Impact Factor
Call For Papers
For Authors
Past Issue
Pay Fee
• Scientific Journal Impact Factor: 7.538
• ISRA Journal Impact Factor: 7.894
• Index Copernicus Value: 45.98
• Crossref DOI Number: 10.22214
• International Scientific Indexing(ISI): 1.451
• Indexed with Research Bible, ScienceCentral
• IJRASET Referred by IndianScience.in
• Tied up with Hamburg State & University Library
Submission Last Dat
31.12.2022
Publication Time:
Within 48 Hours
Why Choose Us
• Peer-Reviewed Multi-disciplinary Journal
• Strict Policy against Plagiarism
• Fast Track Publication Journal
• High Impact Factor Value
Achievements
• EUROPUB- UK Indexed Journal
• Thomosn Reuters Researcher ID: N-9681- 2016
• Scientific Journal Impact Factor: 7.538
• ISRA Journal Impact Factor: 7.894

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 10 Issue VII July 2022- Available at www.ijraset.com

An Evaluation of Road Safety Performance for Selected Road Stretches in Kolhapur City

Mr. Nitish A.Mohite[1], Priya K Figueredo[2], Mr. Mayur M. More[3], Miss Pooja A. Bhokare[4], Hirugade Rhunali V.[5], Jagadale Ruchita R.[6], Kurhade Snehal S.[7], Shinde Sourbh S.[8]
[1, 2, 3, 4]*Assistant Professor, Department of Civil Engineering, BVCOE, Kolhapur*
[5, 6, 7, 8]*B.Tech. Students Department of Civil Engineering, BVCOE, Kolhapur*

Abstract: ***The major cause for global deaths and injuries are mainly due to road crashes. It is worst in developing countries due to rapid and unplanned urbanization. It was estimated in 2010 that about 1, 60,000 persons have died due to road crashes in India. Since, road safety is influenced by many factors it involves complex studies to arrive at the reasons for accidents. As a result the accident study itself remains under estimated in many of the countries specially in developing countries. In recent years several indicators are developed in order to study the factors influencing the accident and based on which the improvement measures can be adopted to reduce accident rate. In the present study two stretches are selected to validate the Road safety Index (RSI) equation and to suggest the improvements to the selected road stretches. Also an analysis is made to check if there is any improvement in the RSI value.***

Keywords: Road safety, WHO, IRC, RSI, Road safety performance

I. INTRODUCTION

Road safety is a multi dimensional issue. In order to improvise the safety of road it incorporates the development and management of road infrastructure, rules and regulations, law enforcement to the road users etc.,. The accident rate has increased rapidly with increase in road network, motorisation and urbanisation in the country. Worldwide, over 1.2 million people are killed in road crashes each year and 20 to 50 million are injured according World health Organisation, 2009. It means that every day around the world, more than 3000 people die from road traffic injury. WHO estimates road accidents will become the world's third leading cause of death by the year 2020. India has a well established road network of about 33 kilometer. At the same time, India has one of the highest accident rates in the world with more than 14 accidents per thousand vehicles every year.

The road safety audit, when used for applications on existing roads is more appropriately termed as RSI. The process is a proven highly cost effective process that assists with production of safe roads.India has the second largest road network in the world with over 3 million km of roads of which 60% are paved. These roads make a vital contribution to India's economy. Road safety is emerging as a major social concern in the country. The statistics with an average mortality rate of 1, 00,000 persons dying in road accidents. India having more than 33 lakh kilometer of well-spread road network. At the same time, India has one of the highest accident rates in the world with more than 14 accidents per thousand vehicles every year, compared to only 6 to 8 accidents per thousand vehicles in developed countries. India accounts for about 10 percent of road accident fatalities worldwide. An estimated 12, 75,000 persons are seriously injured on the road every year. Studies on accidents, the world over, have shown that the human factor is responsible for a majority of accidents. Road Safety is a multi-dimensional issue in order to improve the safety of road; it incorporates the development and management of road infrastructure, rules and regulations, law enforcement to the road users etc.

Kolhapur is the one of the major cities in Maharashtra state. As per report of 2011 censes of Kolhapur city population is 5,49,236 (approximate). The no. of accidents in Kolhapur city increasing day by day is due to increases in population, increase in vehicles registration, increase in road network and rapid urbanization. The no. of accidents due to improper lane changing, prohibitated dangerous passing and merging etc. therefore it is necessary to study the road safety and performance in Kolhapur city.

II. OBJECTIVES

1) Review of current status and literature review and understanding the major causes of accidents of road.
2) To control over the risk involved in operating vehicles.
3) To suggest improvement for safe working of vehicle on road.
4) Detail Study of selected road stretches.

International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 06 Issue: 07 | July - 2022 Impact Factor: 7.185 ISSN: 2582-3930

Performance Evaluation of Laboratory Scale Vegetated Vermifilter for Domestic Wastewater: Case Study of Kolhapur

Priya K. Figueredo[1], Nitish A. Mohite[2], Pooja A.Bhokare[3], Banage Priyanka J[4] , Salunkhe Vishal P[5], Vyavahare Samata S.[6] , Yadav Ranveer [7], Paymal Nayan N.[8]

[1,2,3] *Assistant Professor Civil Department Bharati Vidhyapeeth College of Engineering, Kolhapur.*
[4 5 6 7 8] *B- TECH Civil Department Bharati Vidhyapeeth College of Engineering, Kolhapur.*

Abstract -
Earthworm bodies have been shown to act as biofilters and remove BOD, COD, TDS, and TSS through common mechanisms of uptake, biodegradation, and absorption from the body wall. Two laboratory-scale vertical vermifilters will be developed. One uses only canna indica and filter media, and the other uses canna indica and (earthworms) with the filter media. The experimental phase will last 72 hours. Various parameters such as BOD, COD, pH, turbidity, canna indica growth, bed clogging. Organic waste management is increasingly concerned due to unsustainable disposal practices. Sewage treatment facilities are designed to treat wastewater in a way that produces safe wastewater. However, one of the by-products, sewage sludge, is rich in pathogens because it is disposed of in landfills and used as fertilizer on farms. Sustainability can be achieved by composting organic matter with vermi. This includes accelerating nutrient circulation through a closed-loop system, leading waste to productive end applications. Earthworm composting and worm filtration are natural waste management processes that rely on the use of worms to convert organic waste into stable soil concentrates. We investigated the fate of filter materials and microbial communities during the vermifiltering process for a month while treating concentrated miscellaneous wastewater. Two filters are filled with 10 cm, the first layer from the bottom is coarse aggregate (size 20 mm, height 6 mm), the second layer is (size 10 mm, height 4 mm), and the third layer is charcoal (size). 25mm, height 4mm), 4th layer is sand (size 4mm, height 4mm), 5th layer is soil, last layer is freeboard.

Key Words:Domestic Wastewater, Vermifilter, COD, BOD, Canna Indica, Eisenia Fetida.

1. INTRODUCTION:

According to UNICEF, an estimated 564 million people defecate in India, which is almost half of the world's population. According to the latest Indian Census, 49.84% of people practice open turf, while 47% of Indian households have a household toilet. Most Indian cities are only partially drained. A whopping 48% of urban households in India rely on on-site facilities (mainly septic tanks and pit latrines) to meet their hygiene needs. This reliance on on-site hygiene naturally increases with rapid population growth and urbanization. Therefore, at the national level, it is clear to focus on a sustainable service delivery approach to hygiene. Indian cities often face the challenge of connecting suburbs and underdeveloped parts of the city to existing sanitation systems (such as sewage treatment facilities). In such cases, the decentralized treatment approach is a logical solution. In this system, wastewater is treated at or near a water source and rather than being connected to a centralized sewage system, a relatively small amount is discharged from a single house to the entire community nearby. This system offers the advantage of recycling and reusing wastewater in that particular area. The current take-make-up-disposal approach can be counteracted by this system, which complements the concept of "circular economy". The amount of miscellaneous wastewater produced at home varies greatly from about 15 liters per person per day in poor households to 100 liters per person per day. Of the 100%, 25% is black water, 75% is reclaimed water, and can rise to 90% in drywall. Reclaimed water accounts for 69% of domestic wastewater. To recycle and reuse such a large amount of wastewater, treatment options should be considered. One such solution is decentralized processing, which allows the community to focus on the most pressing processing needs, while allowing smaller design flows and waste areas. As a result, the financial burden is concentrated on individual properties rather than the entire district. For rural or remote residential or community applications, decentralized systems have

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 10 Issue VII July 2022- Available at www.ijraset.com

To Study Rehabilitation of Old Elevated Water Tank and to Generate Non-Conventional Energy

Priya K Figueredo[1], Mr. Nitish A. Mohite[2], Miss Pooja A. Bhokare[3], Chavan. Revati. P[4], Patil. Ashwini. R[5], Farakate. Snehal. S[6], Patil. Mrunal. M[7], Nalawade. Nikita. R[8]
[1, 2, 3]*Assistant Professor, Department of Civil Engineering, BVCOE, Kolhapur*
[4, 5, 6, 7, 8]*B.Tech. Students Department of Civil Engineering, BVCOE, Kolhapur*

Abstract: ***Many of the existing reinforced concrete structures around the world are in urgent need of reinforcement, repair, or reconstruction due to structural damage that occurs for a variety of reasons. The main purpose of this project is the restoration of an existing ancient water tank (Panyacha Khajina) on Old Mahadwar Road in Kolhapur, Maharashtra. Therefore, it is necessary to store water for daily use, the water storage tank should be in good condition and should be repaired if damaged. To find defects in the aquarium, first perform a visual inspection such as photography, checking for the effects of cracks and corrosion, and then inspect the existing aquarium structure, including collecting information on repair work. In this plot, you can install the solar system on top of the existing water tank to increase the efficiency of the plot. Since we are not using a surface water tank, the project`s idea is to install solar panels on the roof of the tank to generate electricity so that it can be used for various purposes. Next, you can deploy 113 solar panels and find a total of about 146 units of energy per day. Due to the limitations and impacts of non-renewable energy sources, people around the world need to pay attention to renewable energy sources.***

Keywords: Renewable energy, Non-renewable energy, Restoration, aquarium.

I. INTRODUCTION

Rehabilitation of structure:- Water tanks are used to store daily water, and the water tanks need to be kept in good condition. Elevated water tanks are mainly used for water supply and fire protection. Clean water is essential for a healthy and safe life. Buildings built usually lose their strength as the building ages {i.e: Usually after 20 or 30 years.} Over time, these buildings have lost strength due to material deterioration, unexpected overloads, structural defects, and cracks in water tanks. The structure is weakened due to the reduced durability. If the cause of the cracking or deterioration of the concrete is not identified in time, the aquarium may fall or an accident may occur. Therefore, repair and rehabilitation are very important. That means updating the structure by repairing and repairing the damage. Helps improve structural stability and maintainability. Instead of demolishing or pouring the entire structure, we suggest remediation measures that can re-inspect the structure, be economical and save money. Before trying the repair method, a planned approach is needed to examine the condition of the concrete and rebar. The first step in repair and refurbishment is the correct diagnosis for a successful refurbishment operation. It deals with non-destructive evaluation techniques, laboratory tests and conditions. Commonly used non-destructive testing such as rebound hammer test, ultrasonic pulse velocity test (UPV), pullout test, core test, chloride test, carbonization test, pH measurement, resistance test, differential thermal analysis (DTA), etc.

Non-Conventional Energy:- Not only is energy essential to human survival, its availability is seen as the backbone of national growth and development. India has experienced rapid urbanization and industrialization over the past few decades.

Today, with the declining amount of renewable energy sources, the last decade has become increasingly important to the cost per watt of solar energy devices. It will definitely be economical and will grow as a better technology in terms of cost and applications over the next few years. The earth receives sunlight from above every day (about 1366W). This is an unlimited source of energy available for free. The great advantage of solar energy over other traditional generators is the ability to convert sunlight directly into solar energy using small photovoltaic (PV) solar cells. There has been a lot of research activity to combine solar energy processes by developing high conversions from solar cells / modules / panels. The biggest advantage of solar energy is that it is freely available and available in large quantities to the general public, compared to the prices of various fossil fuels and oils over the last decade. In addition, solar energy requires significantly less personnel than traditional power generation technologies. Unconventional energy has the potential to minimize pollution, reduce global warming, create new industries and jobs, and drive the country towards a cleaner and healthier energy future.

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 10 Issue III Mar 2022- Available at www.ijraset.com

Feasibility Study of Zero Discharge Concept in Sugar Industry After Anaerobic Treatment: Case Study of Solapur

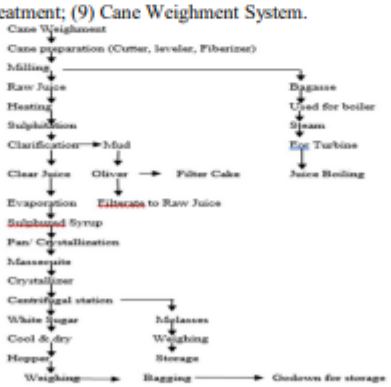
Priya K Figueredo[1], Miss. Pooja A. Bhokare[2], Mr. Nitish A.Mohite[3]
[1, 2, 3] *Assistant Professor, Department of Civil Engineering, BVCOE, Kolhapur*

Abstract: ***Purification and reutilisation of waste water from different industries is a challenge for a smarter and healthier environment. An important role in Indian economy is played by an agro based industry segment which is nothing but sugar industry. But the effluent from the industry is a proven fact as a threat for environment. Effective waste water management can result in smart and healthy city environment. The treated colored effluent from the industry is not preferred for reuse and recycle, though the other BOD, COD, TDS, TSS, MPN are in permissible limit. Root zone technique is one of the important approaches for, as the process is economical, easy in operation and maintenance. Pilot plant is constructed and executed using a typical species. The intake of treated effluent and the final effluent from root zone technique were collected and tested for various contact hours. To accommodate the massive urbanization it can be used to find smarter ways to reduce expenses, manage complexities that's the treated waste water from industry can serve for following: 1) Gardening 2) Fire Fighting 3) Washing 4) Toilet Flushing etc. For a better and smart management of treated waste.***
Keywords: Agro based industry, sugar industry, colored, root zone technique, species, contact hours.

I. INTRODUCTION

Today, numerous urban areas catch water from encompassing lakes, streams, or supplies, empty a large number of dollars into treating and transporting that water to homes and business, and afterward toss that water after a solitary utilization. In water scarce situations, this "expendable water" methodology is inefficient and dangerous. Over-extraction of surface and groundwater can diminish environment capacity, bring about area subsidence, and fuel clash. It additionally strains open spending plans, diverting stores into water supply extends that would be superfluous with more effective utilization of existing assets.

Vithalrao Shinde Sahakari Sakhar Karakahana Ltd. has initial installed cane crushing capacity of 2500 TCD. Sugar factory was established for manufacturing of crystal sugar by double sulphitation process from sugar cane juice and from 2001-02 cane crushing capacity up to 6000 TCD. Sugar factory shown tremendous enhancement for development in Financial & Educational, Upliftment, & overall progress in rural area. In Maharashtra, Vithalrao Shinde Sahakari Sakhar Karakahana has only the anaerobic digester i.e., (UASB Up flow Anaerobic Sludge Blanket) for treating the effluent. Sugar manufacturing process involves mainly nine stages as mentioned below(1) Cane weighing; (2) Cane handling and preparatory system; (3) Milling system; (4) Juice clarification system; (4) Evaporation; (5) Vacuum pan boiling and crystallization; (6) Curing, Drying, Grading, bagging and warehousing; (7) Final molasses storage; (8) Effluent to make treatment; (9) Cane Weighment System.



Vithalrao Shinde S. S. K. Ltd;
White Sugar Process flow chart


INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS - IJCRT (IJCRT.ORG)
International Peer Reviewed & Refereed Journals, Open Access Journal
ISSN Approved Journal No: 2320-2882 | Impact factor: 7.97 | ESTD Year: 2013
Call For Paper - Volume 10 | Issue 11 | Month- November 2022
Scholarly open access journals, Peer-reviewed, and Refereed Journals, Impact factor 7.97 (Calculate by google scholar and Semantic Scholar | AI-Powered Research Tool) , Multidisciplinary, Monthly, Indexing in all major database & Metadata, Citation Generator, Digital Object Identifier(DOI)
HOME
IJCRT
EDITORIAL
FOR AUTHOR
CURRENT ISSUE
ARCHIVE
CONFERENCE PROPOSAL
SUBMIT PAPER ONLINE
Call For Paper November 2022
Call For Papers
IJCRT Search Xplore - Search all paper by Paper Name , Author Name, and Title
Search by Paper id, Published paper id, Paper Name , Author Name, and Paper Title
Click here to se

IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

XGRAPH & GNUPLOT IMPLEMENTATION OF AODV & DSDV ROUTING PROTOCOL IN MANET USING NS2

Mr. Ranjeet R. Suryawanshi[1], Mr. Hemant A.Tirmare[2], Mrs. Aarti H. Tirmare[3], Mrs. Priyadarshani Mali[4]

Electronics & Telecommunication Engineering Department, Bharati Vidyapeeth's College of Engineering, Kolhapur, India
Department of Technology, Shivaji University, Kolhapur, India
Electronics & Telecommunication Engineering Department, Bharati Vidyapeeth's College of Engineering, Kolhapur, India
Electronics & Telecommunication Engineering Department, Bharati Vidyapeeth's College of Engineering, Kolhapur, India

Abstract: The Mobile Adhoc Network also called as MANET is basically wireless network without any fixed infrastructure. It has wireless mobile nodes which are randomly moving in given network topology. It supports dynamic topology where set of mobile nodes communicate each other with the help of routing protocols. A routing protocol decides how packets can be forwarded from source node to destination node via some intermediate nodes by distributing routing information to enable best possible route on a computer network. Therefore, routing protocol plays a important role for providing best route between nodes and establish communication within network. In this paper we have evaluated performance of two routing protocols- AODV(Ad-hoc On-demand Distance Vector) & DSDV (Destination-Sequenced Distance-Vector) using NS2.35 based on different network metrics. Also we have implemented Xgraph & Gnuplot utility of NS2.35, which is inbuilt function for plotting graphs.

Index Terms **- MANET, AODV & DSDV**

1. INTRODUCTION :

MANET Wireless ad-hoc networks consist of self- managed autonomous nodes without any fixed infrastructure. They have dynamic topology , that implies nodes can without much of a stretch join or leave the organization at some random moment [6-7]. This makes them very useful in various applications, like in military for connecting soldiers on the battle field and in disaster situation like earthquake for establishing a temporary network in place of a existing network which crash after a disaster. Ad-hoc networks are well suited for region where we want to have temporary network without any fixed infrastructure. Nodes in MANET communicate with each other by forwarding packets within themselves without an infrastructure.

MANET are alluded to be self getting sorted out and arranging remote organization network . For the information exchange purpose, nodes make use of wireless channel & forwards the information. In MANET, every node is acting as host or router that forwards data to other nodes or receives data from other nodes. Here in this type of network scenario if the collector hub is out of inclusion region from the sending hub who is communicating the information , then a routing calculation is constantly expected to figure out the best way between sender node and receiver node so that the packets reaches to its intended destination successfully To Support the process of connectivity & transmission , nodes makes use of routing protocols such as Destination-Sequenced Distance-Vector & Ad-hoc On-Demand Distance Vector [5].

2. ROUTING PROTOCOLS:

Routing is nothing but way of exchanging data from source node to destination node in the network via intermediate node. Due to short range of nodes, the remote divert directing routing channel in MANET is generally executed through multi-hop, where the message is ordinarily sent by the transitional intermediate mobile nodes. The directing conventions that are utilized in MANET characterizes the route and trade the packets in the nodes, from Source node to intended Destination node.

In this paper, we are going to provide brief idea about two basic types of routing protocols in MANET such as Destination-Sequenced Distance-Vector Routing & Ad-hoc On-demand Distance Vector Routing . Also we are going to evaluate performance of these two protocols using Xgraph & Gnuplot utility in NS2.35.

ISSN No 2347-7075
Impact Factor- 7.328
Volume-2 Issue-8

INTERNATIONAL JOURNAL of ADVANCE and APPLIED RESEARCH

Publisher: P. R. Talekar
Secretary,
Young Researcher Association
Kolhapur(M.S), India

Young Researcher Association

International Journal of Advance and Applied Research (IJAAR)
Peer Reviewed Bi-Monthly

ISSN – 2347-7075
Impact Factor –7.328
Vol.2 Issue. 8 Mar- Apr-2022

TRENDS IN THE INTERPRETATION OF POPULAR FICTION

Dr. Kedar S. Joshi
Assistant Professor, Bharati Vidyapeeth's College of Engineering, Kolhapur
Email- chakravartikj@gmail.com

Abstract:

The very origin and usage of the word popular is not literary and various contextual interpretations had been in practice since long ago. It is often viewed as a minor, less valuable and inferior to the so-called classic in every manifestation of art and literature. The entire (meta) genre of popular literature and its subgenres are the victims of academic biases against them as the negative interpretations of the term are widely circulated and deeply rooted. The term popular literature or popular fiction is itself not suitable for canonical definitions. For this reason, it is not studied as a unique or secluded literary concept or form. Origin and development of popular fiction, especially, is studied always along with the socio-economic factors prevalent in the respective ages. Its huge success in terms of sales figures and wider access made academia to view it from some favourable perspectives. The transitions in the study of popular literature as well as popular fiction from labeling them as the products of commercial interests to their gradual academic acceptance is not so easy. It will not be an exaggeration that this genre and its subgenres like popular fiction are struggling still to make their distinctive place in the sphere of academia. The bitter criticism went to such an extent that it was viewed as an antonym of serious or so called classic literature and its binary too. The modern multimedia is truly a blessing in disguise for the popular literature and its various subgenres. They initiated multi-dimensional studies which brought many considerable results forward and opened this rather neglected literary type for variety of theoretical and critical discussions.

Keywords: Popular, popular fiction, reception, academia, commercial, formulaic

Introduction

In the last quarter of the 20th century and the trend continues also in present times, we witness a proliferation of popular fiction. They are popular in the sales figures as well as number of titles published. Readers have a crucial role in the development of popular fiction since the success of popular fiction in


International Journal of Innovative Research in Technology
(An International Open Access , Peer-reviewed, Refereed Journal)
IJIRTEXPLORE- Search Thousands of research papers
Call For Paper February 2023 Last Date 25 - February 2023
Impact Factor 7.376 (Year 2021)
HOME
EDITORIAL
AUTHORS
CONFERENCE
SUBMIT PAPER
CURRENT
Indexing [Impact Factor: 7.376]
New
Conference Alert • COMTECH Details • NCSST-2021
Google Scholar
Academic Resource Index ResearchBib
ROAD
Scientific Journal Impact Factor
issuu
INTERNATIONAL STANDARD SERIAL NUMBER INTERNATIONAL CENTRE
ResearchGate
Academia.edu
slideshare
Academia.edu
INDEX COPERNICUS INTERNATIONAL
DRJI
CiteSeerX
OPEN ACCESS
SCRIBD

© August 2022 | IJIRT | Volume 9 Issue 3 | ISSN: 2349-6002

Studies of Physico-Chemical Parameters to Access the Water Quality of Sonhira Lake (Chinchani) For Agricultural Farming Purpose in Kadegaon Tehsil (Sangli District)

THORAT J. C[1], MORE A. L[2], KAMBLE P. D[3]
[1] *Bharati Vidyapeeth's College of Engineering Kolhapur, Maharashtra*
[2, 3] *Matoshri Bayabai Shripatrao Kadam Kanya Mahavidyalaya Kadegaon, Maharashtra*

Abstract*— The present study was carried out with the aim to assess of water quality using physico-chemical parameters of Sonhira Lake, such as (temperature, pH, EC, TDS, Calcium, Magnesium, Sodium, Potassium, Carbonate, Chloride, Sulphate of water samples from different sampling points. Comparatively study three villages interpoint distance is 2 to 6 km. it was observed that the water in sonhira lake is better quality. Sonhira Lake receives the small amount of pollution from the surroundings. The results revealed that the average pH value was analyzed as 7.5, Electrical conductivity was 0.52 mhos/cm, parameters include total solids 259 ppm, chlorides was 0.92 ppm, sodium was 1.27ppm, potassium was 0.054ppm, sulphates was 0.92ppm in of sonhira lake water. It was observed that water in Chinchani, Sonkire and Sonsal are better quality.** *The general classification scheme along with concentration ranges defined in these classes will be of immense use for determining the surface water quality status with reference to specific individual parameter.* ***The result obtained from the present study shall be useful of water quality of Sonhira Lake is better use to Agricultural Farming.

***Indexed Terms*— Agricultural water, physico-chemical parameters, Water Quality Test, Description, Instruments/method**

I. INTRODUCTION

Water is a substance composed of the chemical elements hydrogen and oxygen and existing gaseous, liquids, and solid states. It is one of the most plentiful and essential of compounds. It has the important ability to dissolve many other substances. It is important to all living organisms, human health, food production and economic development. Water is a critical input for agricultural production and plays an important role in food security. Lakes and surface water reservoirs are the planets most important freshwater resources and provide in numerable benefits. They are used for domestic and irrigation purposes and provide ecosystems for aquatic life especially fish. The physico-chemical parameters are very essential and important to test the water, before it is used for drinking, domestic, agricultural or industrial purpose. The physic-chemical parameters is very important to get exact idea about the quality of water and then we compare the obtained results with standards values.

Farm water, also known as agricultural water, is water committed for use in the production of food and fiber and collecting for further resources. Water is one of the most fundamental parts of the global economy. In areas without healthy water resources or sanitation services, economic growth cannot be sustained. It is therefore necessary that water quality investigation or assessment can be done to find out whether the available water from the termed reliable sources is safe for drinking and other uses.

Improving water use efficiency of irrigation systems may also reduce negative environmental impacts. Lining canal systems reduces conveyance losses in surface water-based irrigation systems. The proportion of fresh water on earth's surface is only 2.5% of which only 1% is accessible for use. In this context, lakes are one of the most important water resources and have been used as a source of water supply for human consumption and in general accounts for about 0.3% of the total surface water body sources. As such, the conditions of lakes have been in constant deterioration due to increased anthropogenic

International Journal of Multidisciplinary Educational Research

IJMER

(Social Sciences, Humanities, Commerce & Management, Engineering & Technology, Medicine, Sciences, Art & Development Studies, Law)

Peer Reviewed and Refereed International Journal

ISSN : 2277 - 7881 International Scientific Indexing Value : 2.286 | IMPACT FACTOR : 8.017 | Index Copernicus Value : 5.16

ed Awards by IJMER (Sponsored by Prof.(Dr.)Sohan Raj Tater)

Greetings from IJMER.....

"'IJMER' - Carries real values and shows the commitment and concern"

Dr. Botcha Jhansi Lakshmi, Ex MP (Lok Sabha)

Cordial greetings to all academicians.....

Silence is a natural enemy of humankind and life begins in communication. This journal navigates us into those intellectual waters. International Journal of Multidisciplinary Educational Research offers an independent journal for all academicians from all disciplines to apply scholarly and academic theory and practice. It seeks to define and develop the field of Multidisciplinary Research and is directed to academicians working in all aspects.

(K. Victor Babu)
Editor-in-Chief

UGC (Ministry of Education) New Regulations on 22 May 2022

UGC CARE New regulations:on 16th September 2019

Scopus Review Index ID: A2B96D3ACF3FEA2A (UP)

Google Scholar Indexing

Index Copernicus IC Value: 5.16 & ID: 33720

Indexed by ORCID: 0000-0002-0625-2853

Indexed by ResearchGate

Indexed by DRJI ID: 6389

Journal DOI: 4150-2667/IJMER01

International Society for Research Activity (ISRA),Research Unique Number (RUN): 17.7.2013.49

Call for papers

Publication Ethics & M.S

Journal Policies

Review Guidelines

News and Events

On 20.08.12
Dr. Kapila Vatsyayan,(MP) with Editor

On 19.08.12
Prof. Ramakrishna Rao with Editor

On 20.07.12
Greetings from Prof.(Dr.) Sohan Raj Tater

On 07.07.12
IJMER 2nd Issue released by Dr. Botcha Jhansi Lakshmi

On 07.07.12
Greetings from Dr. Botcha Jhansi Lakshmi

On 17.04.12

Our Previous Issues

+ 2022 Issues
+ 2021 Issues
+ 2020 Issues
+ 2019 Issues
+ 2018 Issues
+ 2017 Issues
+ 2016 Issues
+ 2015 Issues
+ 2014 Issues

Cover Page

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN:2277-7881; IMPACT FACTOR :8.017(2022); IC VALUE:5.16; ISI VALUE:2.286
Peer Reviewed and Refereed Journal: VOLUME:11, ISSUE:10(6), October: 2022
Online Copy of Article Publication Available (2022 Issues)
Scopus Review ID: A2B96D3ACF3FEA2A
Article Received: 2nd October 2022
Publication Date:10th November 2022
Publisher: Sucharitha Publication, India
Digital Certificate of Publication: www.ijmer.in/pdf/e-CertificateofPublication-IJMER.pdf

DOI: http://ijmer.in.doi./2022/11.10.102
www.ijmer.in

THE ROLE OF GREEN CHEMISTRY AND ITS APPLICATIONS IN DAY-TO-DAY LIFE

[1]Thorat J. C and [2]More A. L
[1]Bharati Vidyapeeth's College of Engineering, Kolhapur
[2]Bharati Vidyapeeth's Matoshri Bayabai Shripatrao Kadam Kanya Mahavidyalaya, Kadegaon
Maharashtra, India

Abstract: Green chemistry can be defined as designing chemical products and processes that minimize or eliminate the use or development of hazardous substances. This is new revolutionary progress in the field of chemistry. It is a sustainable method that would protect our ecosystem from hazardous and toxic chemicals. This paper mainly highlights on applying green chemistry in day-to-day life like dry cleaning of cloths, Pulp bleaching, Eco-friendly color, Bio gas fuel etc. so that each individual could be made aware it. We study in this article is how green chemistry principles use in day-to-day life and improve the sustainable life and try to use Green chemistry principles and save our environment.

Keywords: Green Chemistry, Ecosystem, Environment, Eco-Friendly, Bio Gas Fuel.

Introduction

Anastas is known as the father of Green Chemistry. The idea of Green Chemistry was developed to minimize pollution in the 1990s[1]. Then in 1998, Paul Anastas and John C. Warner co-authored the pioneering book, Green Chemistry Theory and Practice [2]. They developed the Twelve Principles of Green Chemistry that can be grouped into "Reducing Risk" and "Minimizing the Environmental Footprint." Promoting Green Chemistry is a fundamental approach in shaping a sustainable economic growth model. As we know, hazardous chemicals are responsible for various environmental issues that include ozone depletion: it comes mostly from hydrocarbons and nitrogen oxides, global warming, smog formation, pollution[3], etc., and are also toxic to humans, plants, and animals. Green chemistry emerged from a variety of existing ideas and research efforts (such as atom economy and catalysis) in the period leading up to the 1990s, in the context of increasing attention to problems of chemical pollution and resource depletion. The active prevention of pollution through the innovative design of production technologies themselves[4][5]. The set of concepts now recognized as green chemistry coalesced in the mid- to late-1990s, along with broader adoption of the term (which prevailed over competing terms such as "clean" and "sustainable" chemistry)[6][7].

Many common feedstocks are depleting, such as petroleum and natural gas. The petrochemical industry uses petroleum and natural gas as feedstocks to make intermediates, which are later converted to final products that people use, such as plastics, paints, pharmaceuticals, and many others. Chemical products should be designed to preserve the efficacy of function while reducing toxicity. Due to the advancement in the understanding of chemical toxicity, it has become possible to design safer chemicals that give the desired level of performance, at the same time are within the permissible level of toxicity. Some major themes in green chemistry today include reducing our reliance on nonrenewable energy sources[8], reducing industrial carbon footprints, breaking down landfill waste, and taking advantage of abundant resources (waste) that nobody wants – like carbon dioxide, for example. Carbon dioxide has a deserved reputation of being a damaging greenhouse gas that is pushing up the rate of global warming. Green chemistry has been pivotal in coming up with ways to use CO_2 as a resource instead of having it become a waste product stuck in our air. For instance, chemists found that when CO_2 molecules are kept in a transitive state[8], or what's known as transcritical CO_2, the dynamic state in which CO_2 is at the point of converting from a liquid to a gas, it can be used as an industrial refrigerant to keep things cool.

1. Green Chemistry Goals[9]

So let us look a bit further into "Green Chemistry" to see what it is and how it might help achieve these goals. Green chemistry is a multidisciplinary approach to improving the chemical industry's environmental profile. The basic principles were defined by Paul Anastes (US EPA) and John C. Warner (Polaroid Company) in 1998 as[10]; and we include examples are as follows:

1.1. Prevent Waste

Instead of treating or cleaning up waste after they are created, it is always recommendable to prevent waste. Nowadays, chemists are involved in design techniques that reduce pollution and problems caused by hazardous waste by preventing waste production[11].

Example: Preventing waste can have, which is important in the kitchen and the chemical lab. Containers can be reused at home or for school projects, Reuse wrapping paper, plastic bags, boxes etc.


ISSN (Online): 2319-8753 / ISSN (Print): 2347-6710
ijirset@gmail.com | CONTACT US
IJIRSET
International Journal of Innovative Research in Science,Engineering and Technology
(A High Impact Factor, Monthly, Peer Reviewed & Referred Journal)
ABOUT US TOPICS AUTHORS CURRENT ISSUE DECEMBER 2022 IMPACT FACTOR PEER REVIEW INDEXING FAQ
Impact Factor : 8.118 NEW | Author submit manuscript to ijirset@gma
Recent News
Call for Papers NEW!
Vol. 12, Issue 2, Feb 2023
Paper Submission:28th Feb 2023
Notification :within 24 hours
Publication :within 24 hours
E-Certificates :Immediate
Authors Desk NEW!
Call For Papers
Author Guidelines
Publication Charges
Publication Policy
WELCOME TO IJIRSET!
The International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET) is a High Impact Factor, Open Access, International, Monthly, Peer-Reviewed journal. The journal aims at promoting innovative research in various disciplines of Science, Engineering and
Impact Factor
IJIRSET
[2022]
IMPACT FACTOR
8.118
WHATSAPP
+91 63819 07438
Digital Object Identifier

International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET)

| e-ISSN: 2319-8753, p-ISSN: 2320-6710| www.ijirset.com | Impact Factor: 8.118|

||Volume 11, Issue 5, May 2022||

| DOI:10.15680/IJIRSET.2022.1105364|

Design and Prototype of the Electromagnetic Engine

Jitendra G.Shinde[1], Onkar Majagaonkar[2], Yash Dubal[3], Satish Kadam[4], Sujeet Shinde[5], Chaitanya Mohite[6]

Assistant Professor, Department of Mechanical Engineering, BVCOE, Kolhapur, Maharashtra, India[1]

U.G. Student, Department of Mechanical Engineering, BVCOE, Kolhapur, Maharashtra, India[2,3,4,5,6]

ABSTRACT: Making of electromagnetic engine is process of removing conventional parts in IC engine. electromagnetic engine produces driving power from reciprocating motion of the piston in the cylinder caused by electromagnetic force. The weight of engine is reduced because as these prototype model consists of only one piston and only one pole of magnet is used for running the engine. As you can see now current world trade going towards electronics and magnetic trade. It has been seeing to end its dependency on oil. Electromagnetic engine is absolute alternate for conventional fuel engine. The current effort lightning on development of electromagnetic engine and creating magnetic field in between magnet holder and permanent magnet. Number of expectations were carried out in developing an electromagnetic engine and output bring out by the engine were calculated.

KEYWORDS: Electromagnetic Engine, magnetic field, Conventional Parts, IC Engine

I. INTRODUCTION

Over a couple of decades, various researchers brought up several changes to the internal combustion engine. They focused mainly on improving efficiency & simultaneously reducing exhaust gases produced by the engine.

Most piston-powered engines are having a four-stroke cycle. A stroke is one complete down or one complete up movement of the piston. There are two downstrokes & two upstrokes for the IC engine of this design. There are four steps in one cycle which are Intake, compression, power, and exhaust. The piston is moved up and down on each stroke by the crankshaft. The crankshaft must turn twice for the four strokes mentioned above.

There is a shortage of fossil fuel in today's day & age, so this research paper is about an alternative to the traditional IC engine. An Electromagnetic Engine uses the power of electromagnets & causes no type of pollution also they are the dominant force when this world faces a huge crisis due to inadequate fossil fuels. Magnetism is the basic principle of working for an electromagnetic engine. In this engine, the cylinder head is an electromagnet & the piston head is attached with a permanent magnet.

The components of an electromagnetic engine include a cylinder block, piston, connecting rod, crankshaft, an electromagnetic coil, bearings, piston pin, flywheel, and power source.

II. RELATED WORK

1. For doing any work or research first of all we need to gather or collect information regarding the work. before going towards Electromagnetic Engine we must have sufficient knowledge about IC engine.
2. We collect the information and after doing some study on that information we understand the concept of electromagnetic field And properties of magnets which is really essential for our work.
3. For study, we come in contact with various journals and research work about the IC engine.
4. All the material that we need for our prototype is received from market.

e–ISSN: 2395–0056 p–ISSN: 2395–0072

International Research Journal of Engineering and Technology

(An ISO 9001–2008 Certified Journal)

Fast Track Publications

Home | About Us | Current Issue | Past Issue | Archives | For Authors | Contact Us | Pay Online | FAQ

Call for Paper : Feb 2023

Submission Last Date: 28-Feb

Review Status : In 1 week

Online Publication : In 3 Days

- Initial Online submission
- Author Guidelines
- Processing Charges
- Final Online Submission
- ImpactFactor
- Indexing
- Citations
- FAQ
- Editorial Board
- Topics Covered
- Copyright Claims

Current News & Updates

IRJET invites paper from

d Researchers community...

International Research Journal of Engineering and Technology (IRJET) is an peer reviewed, open access, high Impact Factor,Multidisciplinary journal in English for the enhancement of research in various discipline of Engineering, Science and Technology. Prime Focus of the Journal is to publish articles related to the current trends of research . IRJET brings together Scientists, Academician, Engineers, Scholars and Students of Engineering Science and Technology.Published by Fast Track Publications.

Why Select IRJET?

- An ISO 9001:2008 Certified International Journal.
- Fast, Easy and Transparent paper publication process
- Low publication fee to promote the research work.
- IRJET Impact factor value : 7.529 for the year 2020 (Verify)
- IRJET is indexed in Google Scholar, academia.edu,Scribd, Slideshare & more..
- UGC Approved Journal in 2017
- IRJET is registered with Ministry of MSME, Govt. of India.
- Open Access Journal database for high visibility and promotion of your articles.
- Open Access Journal (No Subscription required to download Papers)
- Strict Plagiarism Policy
- IRJET provides Free Soft Copy of Certificate of Publication to each Authors.
- IRJET provides Hardcopy Certificate of Publication to each Authors.
- Authors can submit the papers at any time by online submission.
- Authors can pay Accepted paper publication Fee online by Net Banking/ Credit Card/

IRJET- Highlight's

ISO 9001:2008 CERTIFIED

OPEN Access JOURNAL

IRJET Impact Factor 7.529

Google Scholar

30,000+ Articles Published

ISSN

Plagiarism Checker X Technology Partner

IRJET Citation Report

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 09 Issue: 05 | May 2022 www.irjet.net p-ISSN: 2395-0072

Design and analysis of front axle using Solidworks simulation

Jitendra Shinde[1], Swapnil Kharade[2], Alfaj Mulani[3], Kiran Kokare[4], Chaitanya Tapase[5], Akash Terani[6]

[1] Assistant Prof. Of Mechanical Engineering Department BVCOE Kolhapur, Maharashtra, India
[2,3,4,5,6] U.G. Student Of Mechanical Engineering Department BVCOE Kolhapur, Maharashtra, India

---

Abstract *- A Front axle is one of the important parts in the vehicle which carries the weight of the vehicle, facilitates steering and absorbs shock due to irregular road condition. Front axle is designed to transmit the weight of the automobile from the spring of the front axle to front wheels so proper design of front axle is essential. This study describes the design and analysis of front axle. The front axle is deigned in CAD software and analyzed in Solidworks software We have studied the existing scenario of the front axle and analyzed the existing axle with different material using CAD software and Solidworkss simulation. We identified the problems in the axle and recommend the modifications. This front axle is analyzed for three different materials which are AISI 1010 steel, AISI 347 Annealed stainless steel, AISI 316L stainless steel. In this work the performance parameters such as stress, strain and displacement are measured by applying static load. The life cycle and strain value of the axle beam is analyzed.*

Key Words: **Front axle, Solidworks simulation, Modelling, Design improvement, Material optimization.**

1. INTRODUCTION

An auto industry is one of the important and key sectors of the Indian economy. The auto industry includes of automobile sector, auto components sector and includes commercial vehicles, passengers cars, multi-utility vehicles, two wheelers, three wheelers and related auto parts. The demands on the automobile designer increased and altered rapidly, first to meet system safety needs and later to reduce weight so as to satisfy fuel This Economy and vehicle performance requirement.

Engine location important to provide greater stability and safety at high speeds by lowering the centre of gravity of the road vehicles, the complete centre position of the axle is dropper. Front axle is subjected to both bending and shear stresses. In the static condition, the axle might be considered as beam supported vertically upward at the ends (at the centre of spring pads). Front wheels of the vehicles are mounted on front axles. Functions of font axle are listed below:

- It supports the weight of part of the vehicle.
- It facilitates steering.
- It absorbs shocks which are transmitted due to road surface irregularities.
- It absorbs torque applied on it due to braking vehicle.

1.1 Problem Definition

In the four wheel vehicle currently the front axle is subjected to non-uniform loading conditions and subjected to combination of stresses and because of that it is undergoing failure with respect to the desired durability. The front axle of the four wheel vehicle is always in the contact of water and the material used has the poor corrosion resistance. This can be reduced by surface protection methods such as paint.

Due to the irregularities on the road, the poor material selection and design the front axle undergoes failure and hence there is scope of improvisation in the front axle. Because of this reasons it is needed to develop CAD model of front axle and analyzing arm using Solidworkss simulation and testing the same under various non-uniform loading conditions with different material which we can achieve the desired durability.

1.2 Methodology

In this project the stress distribution will be carried out on the front axle by using Solidworkss simulation. For this, 3D modelling of front axle in Solidworkss is done by taking the actual dimensions of the axle. Performed static analysis in Solidworkss software and plot deflection, stresses. Design of front axle is changed by considering geometrical and material parameter to reduce stress and displacement. Best material chosen by comparing the present material and again analysis done with the material which have been chosen with the front axle.

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 09 Issue: 05 | May 2022 www.irjet.net p-ISSN: 2395-0072

Design and Development of Humidity Controller for Prevention of Microbiological Spoilage in Vegetables

Jitendra G. Shinde[1], Pratik sathe[2], Arjun Shedage[3], Sourabh Patil[4], Sanket Kumbhar[5], Sairaj Patil[6]

[1] *Assistant Professor of Mechanical Engineering Department, BVCOE Kolhapur, Maharashtra, India*
[2,3,4,5,6] *U.G. Student of Mechanical Engineering Department ,BVCOE Kolhapur, Maharashtra, India*

Abstract - *Is the application of different sensors and hot air is gaining momentum in food processing. A hot air heating system was developed for drying vegetables. An Air heater boiler is used for heating of isolated cabin. In an isolated cabin, two fans are used which are connected to temperature sensors such as thermocouple and RTD. The mixing fans are used for proper circulation of hot air inside the panel and the exhaust fans is used to maintaining the temperature inside the panel. By using this system time required for drying is minimized as compared to the conventional process. We achieve the humidity level from 70% to 15% in 7 to 8 hours but the conventionally same process required 3 to 4 days.*

1. INTRODUCTION

The traditional sun drying process is common and widely embraced by all, however, the process is shown and sometimes incomplete under unfavorable climate conditions. Often the drying products are subjected to noxious effects of dust, dirt, and insect infestation. As a result of inadequacies of the open sun drying process, research efforts on drying agricultural produce have been on the increase over the years in order to develop and produce an economically effective, and systemized method of drying.

Owing to the higher level of exhaustion in the conventional energy sources such as chemical energy, thermal energy, and petroleum energy, saturated air energy is rapidly becoming the main alternative source of energy. The availability and accessibility of saturated air heat energy have greatly assisted in improving the techniques for the preservation of agricultural products.

Drying is a simple technique for preserving crops at a very low cost that might be otherwise spoilt. Although the saturated air collector is a very important component in the saturated airdrying system, much attention has not been drawn to dryer design previously. In principle, the performance of a saturated air dryer does not depends on the several operating conditions such as the climate condition, collector orientation, the thickness of the cover material, wind speed, length and depth of the collector, and the type of material used for the absorbers (ISHRE 2019) For this reason, this research has dealt with the optimization of the design, material selection, and required parameters to enhance the efficiency of the designed saturated air dryers.

2. PROBLEM DEFINITION-

Nowadays, there is a lack of awareness of the significance of humidity in our life. A suitable humidity level is needed to stabilize our environment and the world ecosystem including ourselves.

The relative humidity in the air should be monitored in order to maintain an ideal environment. Too high or too low humidity level condition can affect the quality of Fruits and Vegetables which needs extra care in dry condition all the time.

In day-to-day life, we need food products that have to be stored or preserved for more time. There are some food industries that try to preserve food items for long-term use, but these small-scale industries and agricultural poly houses cannot afford such expensive machinery for the preservation of food. Certain industries such as chickens eggs hatching or even the incubation of immature newborn chicks also need a controlled humidity condition.

Hence we would like to propose this device that can read the humidity level and the temperature in order to help us be aware of humidity conditions around us.

3. OBJECTIVES:

1. To resolve a problem related to the preservation of food in agriculture poly houses by reducing the effect of microbiological spoilage.

2. Getting more output for a unit of input. For example, reducing the energy costs of a facility.

3. Design and development of an affordable system for agricultural poly houses.

4. Maximum use of the already existing system and available material, connecting things and getting them working together.


IJRAR
Contact Us
editor@ijrar.org
Peer Review , Refereed , Indexed , Multidisciplinary, Multilanguage, Open access Online, Print Journal
WhatsApp Only +91 6354477117
All Policy
Call For Paper
Submit Paper Online
Curent Issue
Archive
Paper Status/ Login
How start New Journal & software
Book & Thesis Publications
IJRAR is Peer Review
Refereed
Open access
Monthly, Multidisciplinary, Multilanguage
Online, Print Journal
INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR.ORG)
International Peer Reviewed & Refereed Journal, Open Access Journal
ISSN Approved Journal No: E-ISSN 2348-1269, P- ISSN 2349-5138
Journal ESTD Year: 2014
Call For Paper - Volume 10 | Issue 1 | Month- February 2023
Read all new guidelines related publication before submission or publication.
Scholarly open access , Peer-reviewed, and Refereed, Impact Factor: 7.17, AI-Powered Research Tool , Multidisciplinary, Monthly, Indexing in all major database & Metadata, Citation Generator, Digital Object Identifier(DOI), UGC Approved Journal No: 43602(19)
Submit Paper
Login to Author Home
IJRAR.COM Repository
Communication Guidelines
HOME
IJRAR
EDITORIAL
FOR AUTHOR
CURRENT ISSUE
ARCHIVE
CONFERENCE PROPOSAL
SUBMIT PAPER ONLINE
More..

IJRAR.ORG E-ISSN: 2348-1269, P-ISSN: 2349-5138

INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR) | IJRAR.ORG

An International Open Access, Peer-reviewed, Refereed Journal

Comparative Study Of Performance Of 15% Neem Biodiesel On Single Cylinder Computerized Diesel Engine For Different Compression Ratio and Load

[1]Arjun Kadam,[2]Ananda Patil,[3]Mahesh Kulkarni,[4]Raju Lokapure,[5]Neelangi Kadam

[1,2,3,4,5]Asst. Professor,

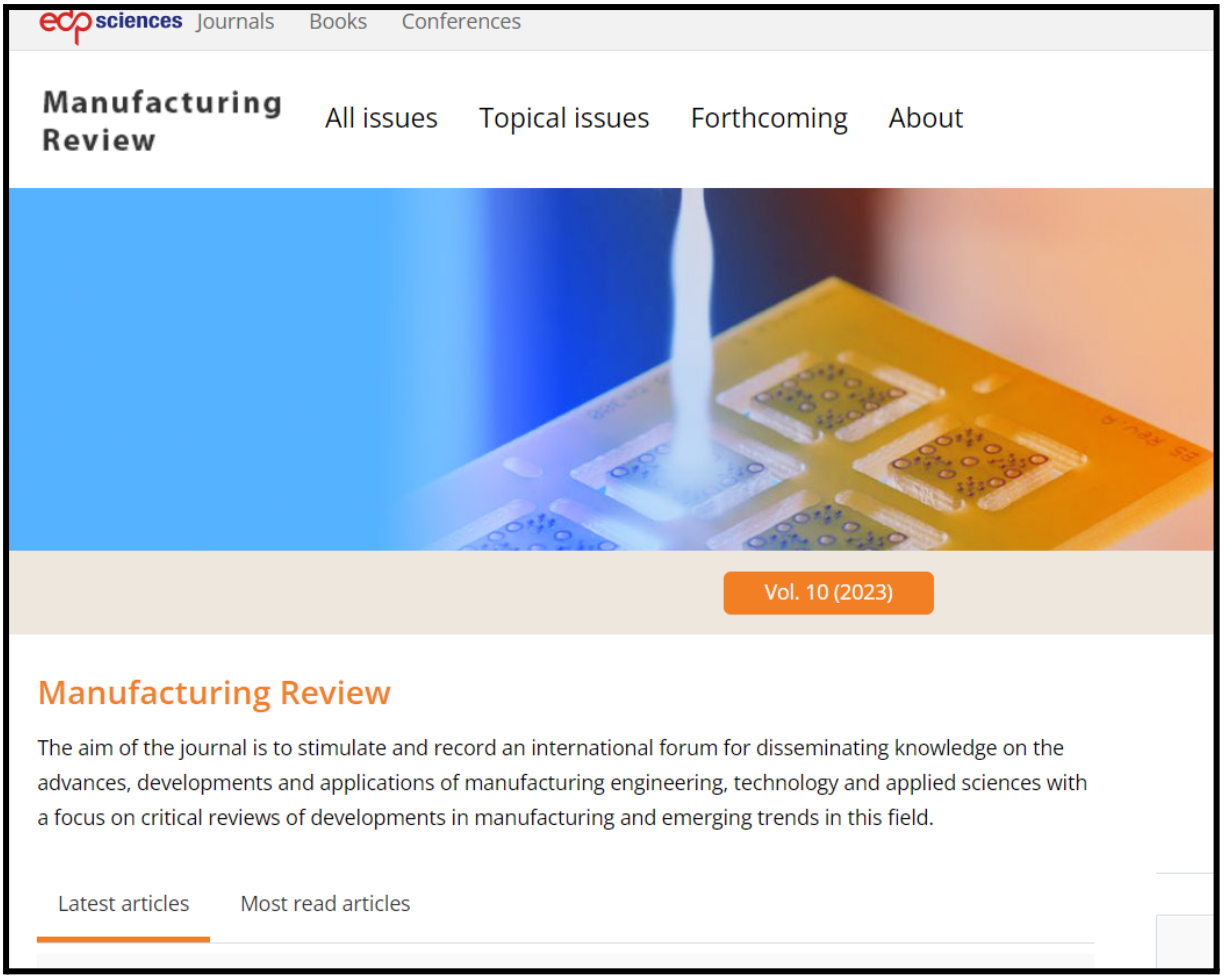
[1]Mechnical Department,Bharati Vidyapeeth C.O.E.,Kolhapur India

Abstract : Requirement of diesel fuel is increasing day by day due to its advantages like low cost, high efficiency, low brake specific fuel consumption. In India about two third of petroleum products imported from oil and petroleum exporting countries. Diesel is non renewable source of energy and they are depleting with time in nature also causes pollution issues. So it is necessary to replace Diesel fuel by biodiesel which will gives contribution to improve Indian economy by use of biodiesel blends. Biodiesel is a renewable, biodegradable fuel manufactured domestically from vegetable oils, animal fats, or recycled restaurant grease. .It is also necessary to study the performance and emission of different biodiesel and find out the alternative for the diesel fuel. This paper focuses on performance of 15% neem biodiesel for different Compression ratio and load to find out optimum condition for performance of diesel engine. Performance of engine is measured by break power, break thermal efficiency, break specific fuel combustion and volumetric efficiency.

IndexTerms - Neem biodiesel, brake thermal efficiency, compression ratio, Computerized diesel engine.

1.INTRODUCTION

Energy is the basic need for economic development of any country and the largest source of energy in India after coal is Petroleum diesel. Fossil fuels are non-renewable sources where stored energy is released due to combustion, such as coal, natural gas, petroleum and they account for almost 80% of energy used worldwide. In India about two third of which is imported from oil and petroleum exporting countries. High dependence on imported fuel and due to frequent fluctuations in petroleum prices has made Indian economy insecure. This rapid development has necessitated the equal rapid expansion of transport sector (rail, surface, air and sea) which entail the use of internal combustion engines. Compression ignition engines namely diesel engines are supposed to be the most efficient engines as they achieve better fuel economy, lower carbon dioxides emissions than conventional spark ignition engines fuelled by gasoline. However, these engines tend to be more costly and emit high level of nitrogen oxides and particulate matter and are the major contributor to air pollution as it is extensively used in public transport and goods transport . *Biodiesel*, based on vegetable oils and animal fats is an alternate fuel which is considered safe. Biodiesel is a renewable, biodegradable fuel manufactured domestically from vegetable oils, animal fats, or recycled restaurant grease.. Biodiesel is a liquid fuel often referred to as B100 or neat biodiesel in its pure, unblended form. Like petroleum diesel, biodiesel is used to fuel compression-ignition engines. Blends of biodiesel and conventional hydrocarbon-based diesel are most commonly distributed for use in the retail diesel fuel marketplace. Much of the world uses a system known as the "B" factor to state the amount of biodiesel in any fuel mix.


sciences Journals Books Conferences
Manufacturing Review
All issues
Topical issues
Forthcoming
About
Vol. 10 (2023)
Manufacturing Review
The aim of the journal is to stimulate and record an international forum for disseminating knowledge on the advances, developments and applications of manufacturing engineering, technology and applied sciences with a focus on critical reviews of developments in manufacturing and emerging trends in this field.
Latest articles
Most read articles

Review Open Access

Nanofluids, micro-lubrications and machining process optimisations – a review

Rahul R. Chakule[1,*], Sharad S. Chaudhari[2], Kailas V. Chandratre[1], Pralhad B. Patole[3], and Poonam S. Talmale[4]

[1] Mechanical Engineering Department, Loknete Gopinathji Munde College of Engineering, Nasik 422006, India
[2] Mechanical Engineering Department, Yeshwantrao Chavan College of Engineering, Nagpur 441110, India
[3] Mechanical Engineering Department, Bharati Vidyapeeths College of Engineering, Kolhapur 416013, India
[4] Mechanical Engineering Department, Late G. N. Sapkal College of Engineering, Nasik 422006, India

Received: 19 May 2022 / Accepted: 19 November 2022

Abstract. The lubrication is a prime requirement of metal cutting industries to assure high quality performance. The conventional technique of coolant flow is less economical and eco-friendly. Recently, nano fluids found better cutting fluid in machining due to potential thermal and heat transfer properties. The role of micro-lubrication techniques and process optimization are equally important for improving process performance. The literature review presents the findings of different researchers in the field of nano fluids and micro-lubrication techniques. The experimental studies were focused on better process performance using micro-lubrication techniques, especially nanofluid MQL with optimized process parameters. The thermal conductivity of water based TiO_2 nano fluid shows improvement by 22% in base fluids. The case study discussed which is focused on preparation and characterization of nano fluid, experimental setup and optimization of process parameters by Jaya algorithm. Finally, application of nano fluid, and challenges during nano fluid preparation is identified. The scope of research work is recommended for further study to obtain an economical, eco-friendly manufacturing process.

Keywords: Cutting fluid / machining / modeling / micro-lubrication / optimization

1 Introduction

The recent industries are more concise for economical, eco-friendly and sustainable machining process to achieve quality production. The large amount of heat is generated during machining when tool and work piece contact and it varies from machining to machining type. Setti et al. [1] and Lee et al. [2] discussed the problem of heat generation in the grinding process due to contact of a wheel with workpiece surface for a fraction of seconds during material removal. The chips during grinding are in the form of debris which consumes a large amount of specific grinding energy. The prime requirement is to remove heat quickly from the machine cutting region to avoid further thermal damage to the workpiece and cutting tool. The efficient and better penetration of cutting fluid at the contact zone improves the performance of the machining process. At the same time, optimized process parameters are equally important for a quality product, reducing machining costs and maximizing production rates. Brinksmeier et al. [3] discussed the importance of cutting fluid and its composition for improving process efficiency. The usage of metal working fluid (MWF) varies from machining to machining type and plays a significant role in process improvement. But the excessive use of cutting fluid for machining gives a lot of problems. Li et al. [4] suggested the excess use of metal working fluid (MWF) for machining is uneconomical and creates health issues to workers. In a review paper by Aurich et al. [5], the sustainability of abrasive processes, mainly three dimensions, such as economy, environment and society is discussed. The reason for focusing on abrasive processes is due to a complex material removal mechanism, high specific energy and high use of cutting fluid. Najiha et al. [6] explained the importance and necessity of process sustainability from a manufacturing view. The sustainable techniques of manufacturing such as dry machining, minimum quantity lubrication (MQL) solid lubricant, cryogenic coolant and nano fluid MQL are explained. The paper also suggests that 15–20% of the overall machining cost is related to cooling and lubricating fluids. The total cost associated with the procurement, maintenance, and discarding such fluids may amount to approximately 17% per component in the automotive

* e-mail: r_chakule@rediffmail.com

DOI: 10.14704/nq.2022.20.11.NQ66109

Challenges of Energy and Environmental Sustainability

Abhijeet Pabale, Deepak Paithankar, Jitendra G. Shinde, Gajendra J. Pol, Avadhut R. Jadhav, M. Ramaganesh

Abstract

The concepts of energy and climate, as well as the related security issue, are evaluated by taking into account authentic advancement processes, notably the concept of maintainability, and the multi-layered construction of the potential of supportability is revealed in this study. The majority of the supportability issue revolves around how long the usage can be sustained for under normal asset constraints. This current situation, which draws supportability closer merely from a financial standpoint, has resulted in the link of manageability with monetary development/advancement, and maintainability and effectiveness are assessed together. Indeed, the biological economy concept has emerged as a response to the current situation. This study investigates the concerns of energy and climate management. It also investigates the relationship between energy use and GDP, the conflict between energy and climate, and the general public's future energy demands.

Keywords

Energy, Environment, India, Sustainability.

Full Text


Taylor & Francis Online
Log in
Register
Cart
Join The Knowledge Retreat for free, expert advice on achieving balance, focus and inspiration when writing.
Search peer-reviewed journals and articles
Enter keywords, authors, DOI, ORCID etc
Advanced search
4,920,000+ articles
Find a journal

Research Article

A comparative study of project risk management with risk breakdown structure (RBS): a case of commercial construction in India

Muzammil Bepari, Balkrishna E. Narkhede & Rakesh D. Raut

Published online: 26 Sep 2022

Download citation https://doi.org/10.1080/15623599.2022.2124657 Check for updates

Full Article Figures & data References Citations Metrics Reprints & Permissions Get access

Abstract

The construction industry deals with the growing complexity and dynamism exposed to numerous and interdependent risks which, evolve throughout the project. In most risk management processes, risk identification forms a long list or matrix, which it difficult in identifying more influenced risks. Preparing a risk list or risk matrix in the identification process has become inadequate for prioritizing risks. The construction industry is classified as commercial, industrial, and residential; identifying and managing the project risk for them on a common platform is difficult. In the present work risk breakdown structure (RBS) tool is used for the brief, clear identification of risks by interviewing and brainstorming with the experts involved in three commercial construction projects. It provides a means for grouping all possible individual project risks into risk categories (RC), linked by father/son relations, and risk events (RE) form the hierarchy. Further, analyzed to find the impact on the three main pillars of sustainability: Environmental, Financial, and Social. The plotted results are further structured with the analytical hierarchy process (AHP) and found the global weight of each RC's. The method is applied to illustrate the principle of process and highlights risk identification and its assessment in the Indian commercial construction industry.

Keywords: Commercial construction risk management RBS AHP

Related research

People also read | Recommended articles | Cited by

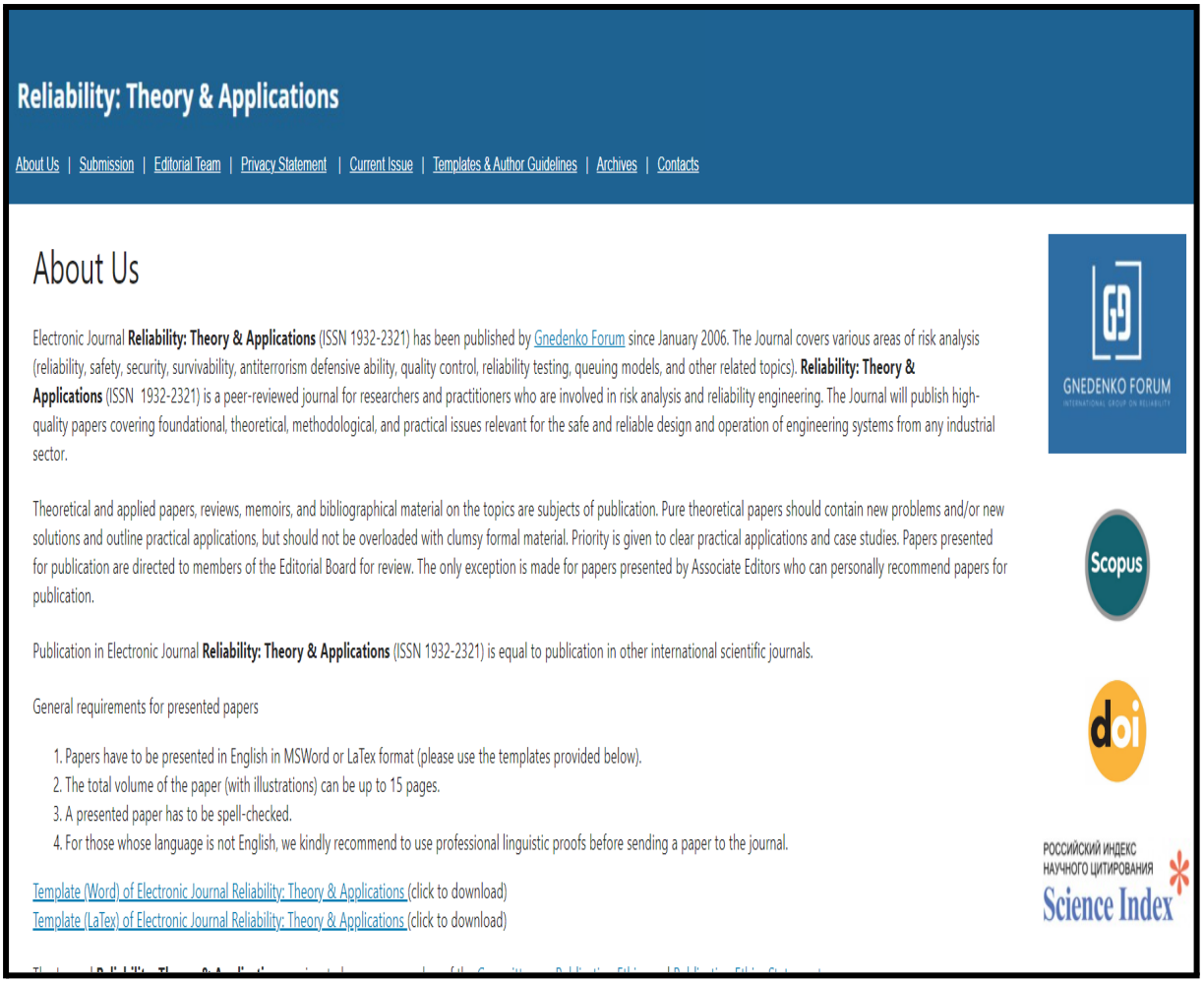
Methodology and tools for risk evaluation in construction projects using Risk Breakdown Structure

Mehdizadeh Rasool et al.
European Journal of Environmental and Civil Engineering
Published online: 18 May 2012

Evolutive Risk Breakdown Structure for managing construction project risks: application to a railway project in Algeria

Fethi Hamzaoui et al.
European Journal of Environmental and Civil Engineering
Published online: 21 Nov 2014

Project schedule risk management through building information modelling


Reliability: Theory & Applications
About Us | Submission | Editorial Team | Privacy Statement | Current Issue | Templates & Author Guidelines | Archives | Contacts
About Us
Electronic Journal Reliability: Theory & Applications (ISSN 1932-2321) has been published by Gnedenko Forum since January 2006. The Journal covers various areas of risk analysis (reliability, safety, security, survivability, antiterrorism defensive ability, quality control, reliability testing, queuing models, and other related topics). Reliability: Theory & Applications (ISSN 1932-2321) is a peer-reviewed journal for researchers and practitioners who are involved in risk analysis and reliability engineering. The Journal will publish high-quality papers covering foundational, theoretical, methodological, and practical issues relevant for the safe and reliable design and operation of engineering systems from any industrial sector.
Theoretical and applied papers, reviews, memoirs, and bibliographical material on the topics are subjects of publication. Pure theoretical papers should contain new problems and/or new solutions and outline practical applications, but should not be overloaded with clumsy formal material. Priority is given to clear practical applications and case studies. Papers presented for publication are directed to members of the Editorial Board for review. The only exception is made for papers presented by Associate Editors who can personally recommend papers for publication.
Publication in Electronic Journal Reliability: Theory & Applications (ISSN 1932-2321) is equal to publication in other international scientific journals.
General requirements for presented papers
1. Papers have to be presented in English in MSWord or LaTex format (please use the templates provided below).
2. The total volume of the paper (with illustrations) can be up to 15 pages.
3. A presented paper has to be spell-checked.
4. For those whose language is not English, we kindly recommend to use professional linguistic proofs before sending a paper to the journal.
Template (Word) of Electronic Journal Reliability: Theory & Applications (click to download)
Template (LaTex) of Electronic Journal Reliability: Theory & Applications (click to download)
GNEDENKO FORUM
Scopus
doi
РОССИЙСКИЙ ИНДЕКС НАУЧНОГО ЦИТИРОВАНИЯ
Science Index

RT&A, Special Issue № 1 (60)
Volume 16, Janyary 2021

A REVIEW ON "TORSIONAL BEHAVIOR OF RECTANGULAR REINFORCED CONCRETE BEAMS WITH ENCASED WELDED WIRE MESH FIBER."

Vivek V. Mane[1], Dr.Nandkumar K. Patil[2]

Ph.D scolar,Civil Enginnering Department,Sanjay Ghodawat University,Kolhapur,India
Professor,Civil Enginnering Department & Registrar,Sanjay Ghodawat University,Kolhapur, India
vivekmane02@gmail.com

Abstract

It is well known that there are four structural actions like axial force, shear, bending and torsion are developed with respect to their nature of loading on the structure. Torsion is always considered as a secondary effect up to 1960's. After that we proceed from working stress method to limit state method and shall go to ultimate load one to reduce the factor of safety. Also the novel structures are designed by Architects, designers having attractive overhanging components prone to torsion effect in the structures. Concrete is probably the most used man made construction material in the world. Concrete is homogenous in nature and strong to resist compression but posses Quassi brittleness in tensile strength such deficiency can overcome by introduction of fibers in the body of concrete. Since from last three decades a lot of research has been done on fiber reinforced concrete subjected to pure torsion but if fibers proportion is more, then difficulties in proper concreting get increased and chances of producing balling effect of fibers which affects the homogeneity of concrete. In other hand the considerable studies laid on FRP techniques by using Glass fibers, Carbon fibers and recently ferrocement jacking utilized for strengthen the existing structures subjected to predominant torsion effect. Although such techniques are very effective for existing structures but requires more additional cost for FRP materials with adhesive and also tend to fire except ferrocement jacketing. But such FRP techniques not overcome the inherent weakness of concrete. However there is also way to utilization of encased Welded Wire mesh in the concrete due to its high tensile strength and can produced the micro cracks behaviour like fiber reinforced concrete for proposed new construction. Here is an attempt to study the behaviour of encased Welded Wire mesh in the concrete subjected to pure torsion.

Keywords: Quassi brittleness, Polymer fiber jacket, ferrocement jacket, WWMF.

I. Introduction

1.1 Concrete

Concrete is probably the most used man made construction material in the world. Concrete is homogenous in nature and also strong in compression. In spite of this, it has some serious deficiencies with respect to tensile strength, flexibility, resilience and ability to redistribute stresses. Generally such deficiency like low tensile strength of the concrete material is overcome by introducing the systems like reinforced concrete and pre-stressed concrete systems. But these systems can counter balance the tensile resistance by introduction of reinforcement and tendons in


Volume 34 Issue 10PA
ISSN 1319-1578
November 2022
جامعة الملك سعود
King Saud University
Journal of
King Saud University –
Computer and
Information Sciences
Production and hosting by Elsevier

Journal of King Saud University – Computer and Information Sciences 33 (2021) 33–44

Contents lists available at ScienceDirect

Journal of King Saud University – Computer and Information Sciences

journal homepage: www.sciencedirect.com

Geographic Multipath Routing based on Triangle Link Quality Metric with Minimum Inter-path Interference for Wireless Multimedia Sensor Networks

Shailendra Aswale [a,*], Vijay Ram Ghorpade [b]

[a] Department of Computer Science & Engineering, DYPCET, Shivaji University, Kolhapur, Maharashtra, India
[b] Department of Computer Science & Engineering, BVCOEK, Shivaji University, Kolhapur, Maharashtra, India

ARTICLE INFO

Article history:
Received 3 November 2017
Revised 22 January 2018
Accepted 3 February 2018
Available online 9 February 2018

Keywords:
Wireless Multimedia Sensor Network
QoS routing
Triangle Link Quality Metric
Multipath
Interference
Hidden Node Problem

ABSTRACT

Wireless Multimedia Sensor Networks (WMSNs) have emerged as the new class of wireless sensor networks (WSNs) to meet the stringent Quality of Service (QoS) requirements of emerging applications. Multipath routing with cross-layer approach appears to be a potential solution for supporting the distinct characteristics of WMSNs. However, due to the broadcast nature of the underlying medium, multiple paths are exposed to inter-path interference. In addition, low-power wireless links are asymmetric, error-prone and unreliable in nature. Consequently, an accurate and stable link quality estimation is essential to guarantee the performance of routing protocol. This paper proposes Triangle link quality metric and minimum inter-path Interference based Geographic Multipath Routing (TIGMR) protocol which finds multiple node-disjoint paths in IEEE 802.15.4 compliant network. This cross-layer routing protocol selects forwarding node based on a triangle link quality metric, remaining energy, and distance while anticipating minimum adjacent path interference effect. In addition, TIGMR protocol avoids Hidden Node Problem (HNP) at the sink node without using Request-To-Send/Clear-To-Send (RTS/CTS) handshake mechanism. Simulation results indicate TIGMR protocol optimizes overall performance and improves network lifetime as compared with state-of-the-art Two-Phase Geographic Forwarding (TPGF) and Link Quality and Energy-Aware Routing (LQEAR) protocols.

1. Introduction

The promising pace of technological research growth has led to the development of sensors capable of sensing and transmitting multimedia data along with scalar data. Wireless Multimedia Sensor Network (WMSN) is a paradigm for the next phase of evolution in Wireless Sensor Network (WSN). A WMSN is a network of interconnected heterogeneous wireless sensors that enables retrieval of video and audio streams, still images, as well as scalar sensor data. WMSN is an exciting new technology with huge potential for reinforcing the traditional WSN applications, as well as creating a series of new multimedia applications such as smart surveillance, visual target tracking, traffic monitoring, environmental monitoring, advance health care delivery, disaster management in Internet of Things (IoT) (Akyildiz et al., 2007, 2008; Al-Turjman, 2017; Alvi et al., 2015).

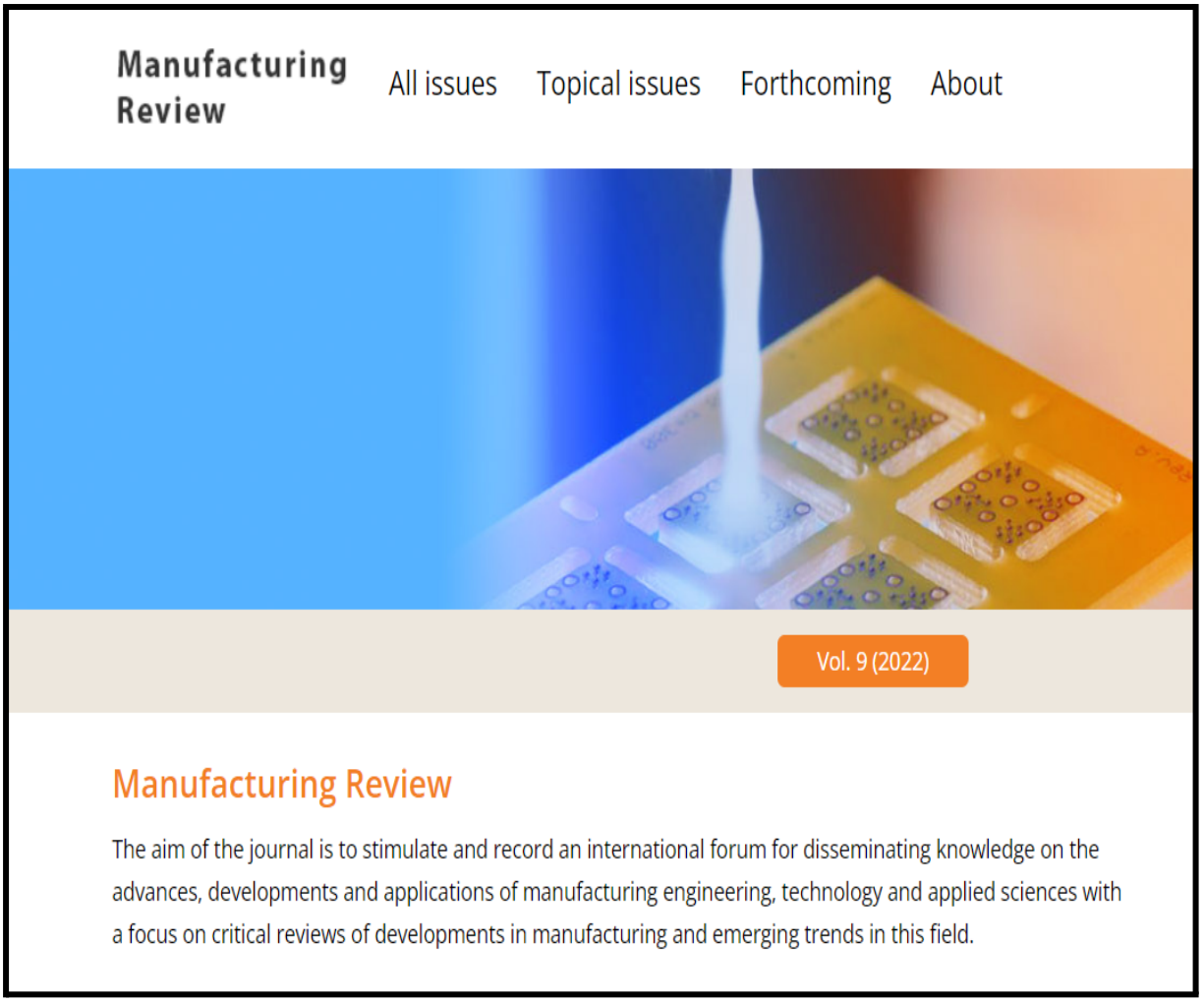
Quality of Service (QoS) is the ability to deliver a guaranteed level of service to potential applications. The main objective of WMSN is to deliver multimedia content with the predefined level of QoS. The transmission of multimedia data requires careful handling in order to ensure that there is a low packet loss rate, end-to-end delay remains within an acceptable range, and jitter is adequate for the perceived video quality. However, due to limited network resources, it is a challenging task to achieve the desired level of QoS for wide range of real-time multimedia applications in WMSN (Al-Turjman, 2018). In fact, multimedia data transmission with QoS guarantee in WMSNs depends on the design and implementation of routing protocol (Aswale and Ghorpade, 2015; Ehsan and Hamdaoui, 2012; Shen and Bai, 2016).

Over about a decade, several empirical studies are being carried out on characteristics of the low-power wireless links. The low-

* Corresponding author.
E-mail address: aswale.shailendra@gmail.com (S. Aswale).
Peer review under responsibility of King Saud University.

Production and hosting by Elsevier

https://doi.org/10.1016/j.jksuci.2018.02.001
1319-1578/


Manufacturing Review
All issues
Topical issues
Forthcoming
About
Vol. 9 (2022)
Manufacturing Review
The aim of the journal is to stimulate and record an international forum for disseminating knowledge on the advances, developments and applications of manufacturing engineering, technology and applied sciences with a focus on critical reviews of developments in manufacturing and emerging trends in this field.

Manufacturing Rev. **8**, 13 (2021)
© P.B. Patole et al., Published by EDP Sciences 2021
https://doi.org/10.1051/mfreview/2021011

Manufacturing Review
Available online at:
https://mfr.edp-open.org

REVIEW OPEN ACCESS

MQL Machining with nano fluid: a review

Pralhad B. Patole[1,*], Vivek V. Kulkarni[2], and Sudhir G. Bhatwadekar[2]

[1] Department of Mechanical Engineering Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India
[2] Department of Mechanical Engineering Sanjay Ghodawat Group of institution, Kolhapur, Maharashtra, India

Received: 14 October 2020 / Accepted: 6 April 2021

Abstract. In any metal cutting machining operation, the cutting fluid plays important role by cooling the cutting tool and the surface of the work piece, also chips are removed from heat affected zone. However, misuse of the cutting fluid and wrong methods of its disposal can affect human health and the environment badly. This paper presents a review of the important research papers published regarding the MQL-based application of mineral oils, vegetable oils and nano fluid-based cutting fluids for different machining processes, such as, drilling, turning, milling and grinding, etc. Most of the experimental studies have shown that application of MQL produces surface better than the flood and dry machining. In turning operation, parameters such as cutting speed, depth of cut, feed rate and tool nose radius have great impact on the surface finish. During high speed turning of steel inherently generates high cutting zone temperature. Such high temperature causes dimensional deviation and failure of cutting tools, surface and subsurface micro cracks, corrosion etc. Therefore, with proper selection of the MQL system and the cutting parameters, it is possible for MQL machining with minimum cost and less quantity of coolant to obtain better conditions, in terms of lubricity, tool life, cutting temperature and surface finish. The findings of this study show that MQL with nano fluid can substitute the flood lubrication for better surface finish.

Keywords: Minimum quantity lubrication / nano fluid / machining / surface roughness etc.

1 Introduction

In recent times, modern machining industries are trying to achieve high quality, dimensional accuracy, surface finish, high production rate and cost saving along with reduced environmental impact. In the machining process, one of the commonly carried out operations is a turning. It can be carried out on variety of machines like lathe, special purpose machine or CNC machine. The quality of turning is measured in terms of tolerances and roughness of surface. Surface finish is a quality specified by customer for machined parts [1]. There are many parameters that affect surface roughness, but most are difficult to quantify adequately. In turning operation, parameters such as cutting speed, depth of cut, feed rate and tool nose radius have great impact on the surface finish [2]. The turning operation seems very simple; through high speed turning of steel inherently generates high cutting zone temperature. Such high temperature causes dimensional deviation and premature failure of cutting tools. It also impairs the surface integrity of the product by inducing tensile residual stresses and surface and subsurface micro cracks in addition to rapid oxidation and corrosion [3].

A cooling lubricant is used in turning operation to reduce friction at tool chip and work piece interface. However, in high speed machining, conventional cutting fluid application fails to penetrate the chip tool interface and thus cannot remove heat effectively The lubricant has a strong effect on machined surface quality and tool wear. The costs related to cutting fluid represent a large amount of total machining cost; also cause health of machining operator and correct disposal [4]. However, at present complete elimination of cutting fluid is not possible. An alternative to conventional flood machining is the application of cutting fluids, in very small quantities to the small area where actual machining takes place. This technique is known as minimum quantity lubrication (MQL). In MQL the heat removal can be done and it also provides sufficient lubrication to prevent the generation of heat and reduces environmental impact [5].

The recent development of nano fluids provides alterative cutting fluids which can be used in MQL machining. The advanced heat transfer and tribological properties of nano fluids can provide better cooling and lubricating in the MQL machining process, and make it production-feasible.

*e-mail: pb.patole@rediffmail.com


IJIRSET
International Journal of Innovative Research in
SCIENCE | ENGINEERING | TECHNOLOGY
e-ISSN: 2319-8753 | p-ISSN: 2320-6710
INTERNATIONAL JOURNAL
OF INNOVATIVE RESEARCH
IN SCIENCE | ENGINEERING | TECHNOLOGY
Volume 10, Issue 6, June 2021
INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA
Impact Factor: 7.512
9940 572 462
6381 907 438
ijirset@gmail.com
www.ijirset.com

International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET)

| e-ISSN: 2319-8753, p-ISSN: 2320-6710| www.ijirset.com | Impact Factor: 7.512|

|| Volume 10, Issue 6, June 2021 ||

|DOI:10.15680/IJIRSET.2021.1006142|

Tourist Place Recommendation System Using Machine Learning

Chinmay Natu, Indrajeet Patil, Yogesh Ghaste, Prathamesh Navangul, Prof. Vijay D Chougule

UG Students, Department of Computer Science and Engineering, Annasaheb Dange College of Engineering and Technology, Ashta., Tal. Walwa, Dist. Sangli, Maharashtra, India

Assistant Professor, Department of Computer Science and Engineering, Annasaheb Dange College of Engineering and Technology, Ashta., Tal. Walwa, Dist. Sangli, Maharashtra, India

ABSTRACT: Recently, the tourist business has become more and more popular. More and more tourists prefer to use Internet services to book hotels, buy flights, and search attractions to see instead of booking complete tours. In this regard, information retrieval systems, which allow finding information about the tourist trip and provide the tourist interested information during the trip, are becoming more and more popular. The most valuable systems support online information. Recommendation systems can be defined as a software that is used to generate personalized recommendations and guess the user's preferences and interests, based on the users' current and past behavior. Currently, tourists use several recommender systems to find new destinations for their holidays. However, the results gathered from such systems might be misleading sometimes, it does not meet the tourist's expectations. Recommender system plays the role of generating suggestions by collecting user information such as preferences, interests, and locations. A tourist needs to plan his trip by selecting a destination and the different points of interest (Pols) to visit. He generally uses information from travel agencies, travel book guides and websites to organize his trip. Using internet, the tourist has an easy access to large amounts of travel information. The huge volume of available information about destinations, leisure activities and the previous reviews of other travelers turned the trip planning into a very challenging and time consuming task. The tourist gets eventually overwhelmed and he may have serious difficulties to discern the more interesting Pols from the rest. The purpose for building the project is that the user can receive all the information regarding that place under one roof. Also the user will be recommended with the new places based on the places he reviews on the system.

KEYWORDS: Machine Learning, Histograms, Content based recommendation, Image based searching, Feature Engineering, Performance Analysis, Feature Extraction, Machine Learning Algorithms.

I. INTRODUCTION

With recent advances in internet applications and widespread communication technologies, customers are able to share their travel or purchase experiences, feelings, and reviews online. These online reviews play a vital role in acquiring tourism-related services. Our proposed recommendation system contributes towards sustainability in two primary ways. First, it prioritizes travelers' satisfaction, views, and experiences also to visit nearest place from user's current location so as to minimize expenditure of the tour. For tourism sustainability, the aim is to provide the most enjoyable and satisfactory experience in order to increase the number of satisfied travelers who would like to come back and will recommend the destination to others which is more nearer to them.

Our goal is to focus on discovering under-emphasized locations and top-ranked locations to attract tourists. The need was that we felt to develop the website where people can search for the place they want to visit in a convenient manner. Here the user can search the place based on the image and he/she will be provided with all the facilities needed. The main theme of our project is the image based search mechanism. The system also provides an alternative option of searching the place based on the ratings mechanism. The main advantage of the system is to reduce the time of the user by displaying all the relevant information regarding the place he/she searched under one roof. Also to provide the user with places based on the ratings mechanism. When the user has been registered to the system, all the information will be stored to the database and the user will be provided with


iJRASET
International Journal For Research in
Applied Science and Engineering Technology
INTERNATIONAL JOURNAL
FOR RESEARCH
IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY
Volume: 9 Issue: V Month of publication: May 2021
DOI: https://doi.org/10.22214/ijraset.2021.34519
www.ijraset.com
Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429
Volume 9 Issue V May 2021- Available at www.ijraset.com

Response Spectrum Analysis of G+ 15 Story Building with and without Base Isolation System

Mr. Nitish A. Mohite[1], Mr. V. B. Patil[2]
[1, 2]Assistant Professor, Department of Civil Engineering, BVCOE, Kolhapur

Abstract: ***In the study, three dimensional analytical models of G+ 15 story buildings have been generated and analysed using CSI ETABS software version 2016. The earthquake zone III in India is considered for buildings during analysis. The foundation of a building is a substructure through which the entire load of structure is transmitted to its underneath soil. Here, the analysis and design is done of G+15 story building with and without base isolation system. For the analysis in this paper, base isolation system lead rubber bearing (LRB) is used as it is most widely used as isolation system for buildings. Comparison of various parameters like story drift, story shear, story displacement, story stiffness and time period is done. The study shows that maximum story drift is observed at first story for isolated base as compared to fixed base; story displacements is observed linearly increasing with height of the building.***

Keywords: Lead Rubber Bearing (LRB), Base Isolater , ETABS 2016 Response spectrum analysis, story displacement, story shear, story stiffness.

I. INTRODUCTION

About 60% of portion of India is susceptible to damaging the structure levels of seismic hazards. The structure which do not withstand the seismic pressure might endure extensive damages, break or even collapse. In this study, the structural analysis of G+15 storyed reinforced concrete frame building with and without base isolation is done with the help of ETABS software. A response spectrum is simply a plot of the peak or steady-state response (displacement, velocity or acceleration) of a series of oscillators of varying natural frequency that are forced into motion by the same base vibration or shock. This approach permits the multiple modes of response of a building to be considered. Base isolation decouples the structure from ground motion by decreasing the fundamental frequency when compared to fix-based structure. This concept of base isolation makes the structure to remain elastic during an earthquake.

The present study is discussing that the dynamic response of the structure is provided by isolators in the base of the structure in hard soil(I) and discuss the seismic response such as story displacement, story stiffness, story drift, story force and time period. Analysis is been carried out as per the IS 1893:2002[6]. IBC 2000[11] and UBC 1997 Volume 2[12] code is used to calculate the design parameters of LRB base isolator.

A study on Design and Time History Analysis of High-Rise Building with Different Structures by M Babybai et.al.is done using ETABS software. In this paper it is found that story drift is maximum at first floor and zero at base and minimum at the top of the building.[1]

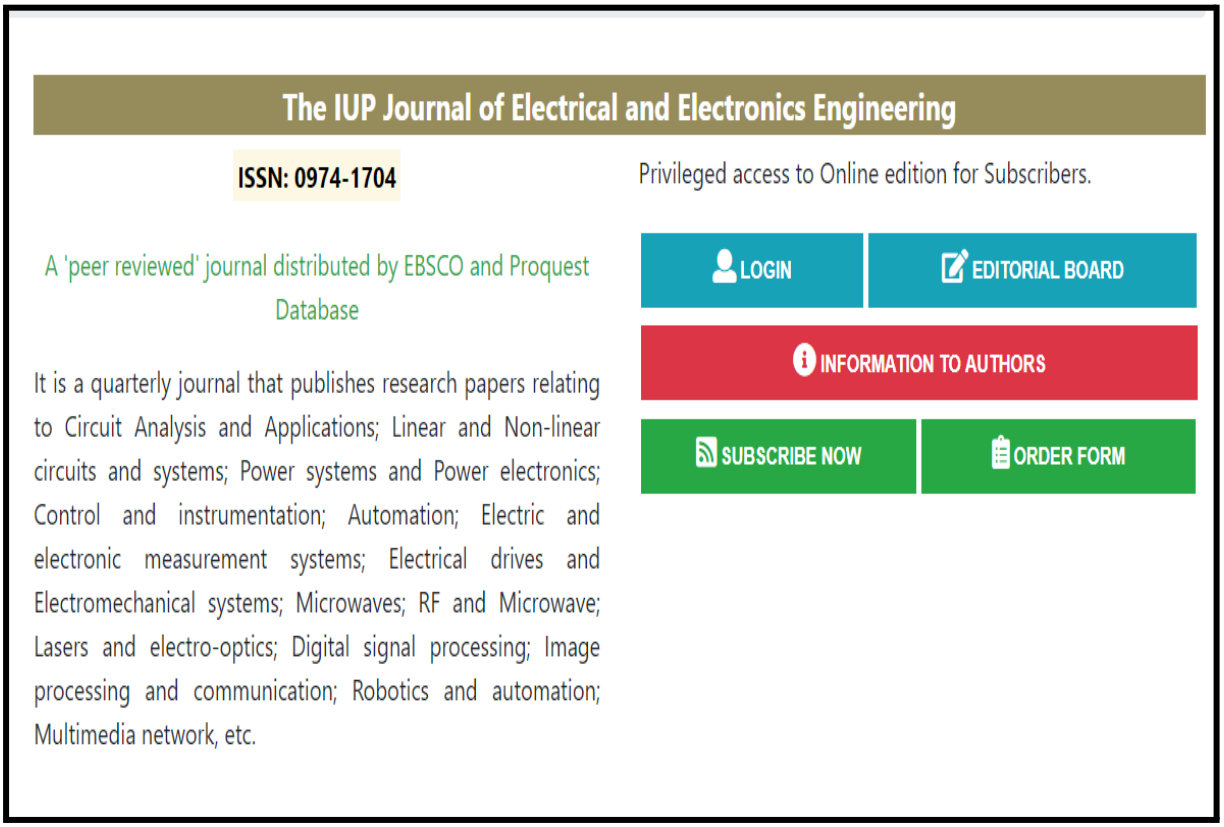
The research study on Seismic Analysis Of High Rise Buildings With Plan Irregularity by Albert Philip et.al.is done using ETABS software. In this paper it is found that Storey displacement is linearly increasing (approx. by 2%) from bottom to top for both the structures and is more for irregular structure.[2]

A research study of Comparison of analysis and design of regular and irregular configuration of multi-story building in various seismic zones and various types of soils using ETABS and STAAD by S.Mahesh et.al is done using ETABS and STAAD.

The conclusion drawn out from this paper is that Base shear value is more in the zone 5 and that in the soft soil in irregular configuration.[3]

A Study on seismic analysis of high-rise building by using software by B.P. Alone et.al. is done using STAAD pro v8i software. In this paper it is concluded that due to unsymmetrical of building geometry modes are not resisting 90 % as its satisfying in X direction successfully after carried out 300 iteration of analysis in such case cut off mode must be add in it & need to check either stiffness of building shall be increase or not.[4]

A Comparative Analysis of RCC and Steel-Concrete-Composite (B+G+ 11 Storey) Building is done by N.A.Mohite et.al. using ETABS software. The conclusion drawn out of this paper is that Still roof displacement and drift with earthquake in X and Y direction are less in Composite framed structure as to R.C.C. framed structure. This may be due to more ductility in case of Composite structure as compared to the R.C.C. which is best suited under the effect of lateral forces.[5]


The IUP Journal of Electrical and Electronics Engineering
ISSN: 0974-1704
A 'peer reviewed' journal distributed by EBSCO and Proquest Database
It is a quarterly journal that publishes research papers relating to Circuit Analysis and Applications; Linear and Non-linear circuits and systems; Power systems and Power electronics; Control and instrumentation; Automation; Electric and electronic measurement systems; Electrical drives and Electromechanical systems; Microwaves; RF and Microwave; Lasers and electro-optics; Digital signal processing; Image processing and communication; Robotics and automation; Multimedia network, etc.
Privileged access to Online edition for Subscribers.
LOGIN
EDITORIAL BOARD
INFORMATION TO AUTHORS
SUBSCRIBE NOW
ORDER FORM

Signal Processing Techniques Used in Digital Hearing-Aid Devices: A Review

The IUP Journal of Electrical & Electronics Engineering, Vol. XIII, No. 1, January 2020, pp. 51-61

Posted: 25 Mar 2021

Manik S Sonawane
Bharati Vidyapeeth's College of Engineering, Kolhapur

S R Chougule
KIT'S College of Engineering, Kolhapur

Date Written: March 4, 2019

Abstract

Hearing impairment is a commonly observed human health problem across the world. In "hearing loss", hearing sensitivity is reduced. To treat hearing loss problem, hearing assistive devices are used. Hearing aids restore hearing ability for those having hearing problems. But with today's most advanced technologies in hearing aids, patients still have some difficulty in understanding speech in crowded areas. Hearing aid has hearing loss match up and adjustment of the hearing aid characteristics according to an individual patient. Digital hearing-aid device amplifies sound selectively by use of digital filters and the processed signal is transferred to the ear. Hearing-aid designers are continuously trying to minimize background sounds and noise with these additional directional microphones, adaptable noise reduction filters and uses of binaural hearing aid technologies to improve localization. Lots of studies have been already done to design digital filters for selective amplification. Most of the available hearing-aid designs have digital filter bank and fixed sub-band structure. Previous research aims at creating band decomposition, and the research is focused on using less complex algorithms for accomplishment of the decomposition of signals. The paper reviews available designs and reconfigurable digital filter banks to achieve the best fitting to audiogram.

Keywords: Hearing loss, Digital hearing aids, Digital filters, Reconfigurable filter


ARME
Asian Review of Mechanical Engineering
An International Peer Reviewed Journal on Mechanical Engineering
TIIC RESEARCH
PUBLICATION

Asian Review of Mechanical Engineering
ISSN: 2249-6289 Vol.10 No.1, 2021, pp.1-7

Design Optimization of Frame of Mechanical Press Machine

G. J. Pol[1], A. R. Jadhav[2], S. J. Kadam[3], S. V. Kumbhar[4] and J. G. Shinde[5]
[1,2,3&5]Assistant Professor, [4]Head & Associate Professor
[1,2,3&5]Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India
[4]Assistant Professor, Department of Mechanical Engineering, S.I.T. College of Engineering, Yadrav, Maharashtra, India
E-mail: gajendrapol@gmail.com, arjmesa@gmail.com, s.kad@rediffmail.com, sujit.kumbhar64@sitcoe.org.in

Abstract - **Power presses are used for the simple, accurate, and economical production of large quantities of articles quickly, accurately, and economically from the cold working of mild steel and other ductile materials. The components produced range over an extremely wide field and are used throughout the industry. Sometimes the pressings may be complicated and more than one pressing operation may be required. The press purpose is to shift one or more sources and movements to a tool or to die to shape or blanch a piece of work. Press design calls for the application of special knowledge about the production process. The press is designed either to perform a specific process or for primarily universal use. The manufacturing process for the metal formation is almost chip less. To perform these tasks Press tools are used. Job component deformation to the desired size is achieved by applying pressure. Presses are regarded as the best and most efficient way of shaping sheet metal into finished products. Pneumatic presses are widely used for operations such as punching, grinding, molding, clinching, blanking, deep drawing, and metal shaping.**

Keywords: **Frame of Mechanical Press Machine, Press Design Press Tools**

I. INTRODUCTION

We recognize there are three types of electric, hydraulic and pneumatic power presses. These may have mechanical or electro-mechanical control systems. Through these three main types of power presses share many common features, the mechanical power press is the most widely used and researched. Mechanical power press works on the principle of reciprocating motion and the flywheel, and crankshaft, clutch are the main components for power transmission. A motor gives flywheel rotational motion and a clutch is used to couple the flywheel rotation to the crankshaft. The crankshaft transforms the flywheel's rotational motion into the press rams down and upward motions. A piece of work is fed, either automatically or manually, into the lower die and the system process is started. The ram (with an upper die) on the down stroke travels towards the area of operation. A re-formed piece is produced when the upper and lower dies press together onto the stock material. Once the down stroke is complete, the work piece created is removed and a new work piece is fed into the machine and process again [1].

A mechanical power press is a machine used to provide force to a die used to shape, blank, or shape metal or non-metallic material. Thus, a press is a component of a manufacturing system that combines to produce a part the press, die, material, and feeding method. The production system designer must also provide sufficient point-of-service guards for safeguarding the staff in the press room. Every part of this production system is important and will be discussed later in this article.

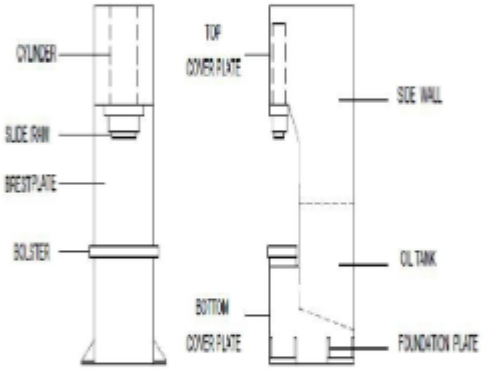


Fig. 1 Block Diagram of Hydraulic Press

A mechanical power press is a machine used to provide force to a die used to shape, blank, or shape metal or non-metallic material. Thus, a press is a component of a manufacturing system that combines to produce a part the press, die, material, and feeding method. The production system designer must also provide sufficient point-of-service guards for safeguarding the staff in the press room. Every part of this production system is important and will be discussed later in this article.

II. THEORY

The various hydraulic and pneumatic presses are designed from all the various articles. We are working on the mechanical press inside my group. Here we focus primarily on reducing low-charged components such as frame and other low-charged components.

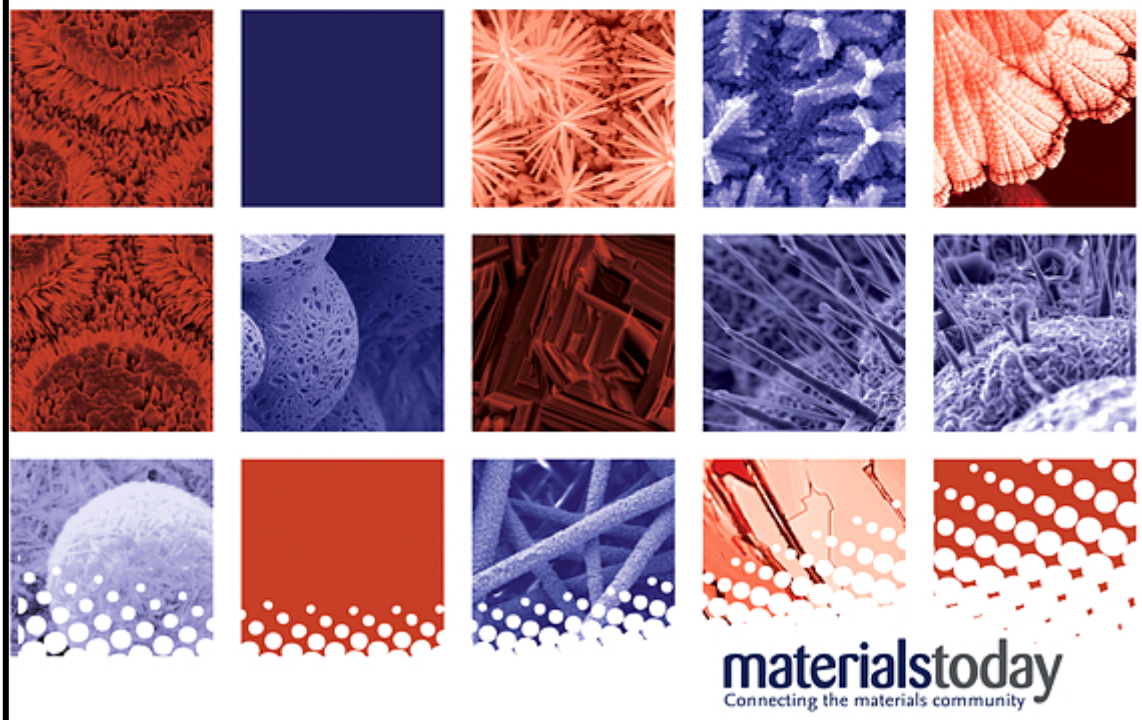
Volume 69 • Issue P4 • 2022

ISSN 2214-7853

materialstoday: PROCEEDINGS

National Conference on Environmental Toxicology: Impact on Human Health (EnvTox 2021)

Guest Editors: Kumud Kant Awasthi, Chandra Shekhar Yadav and Mahipal Singh Sankhla



materialstoday
Connecting the materials community

Analysis of surface roughness and cutting force under MQL turning using nano fluids

P.B. Patole, G.J. Pol, A.A. Desai, S.B. Kamble

Show more

+ Add to Mendeley Share Cite

https://doi.org/10.1016/j.matpr.2021.02.501

Get rights and conte

Abstract

An experimental investigation was carried out to analyze the effects of cutting conditions, and nano coolant on the cutting force and surface roughness in the minimum quantity lubrication turning of the alloy steel AISI 4340. In the present research work, a curve fitting technique is used for the prediction of cutting force and surface roughness in MQL turning process using nano fluids. The developed model may be used for predicting cutting force and surface roughness for given cutting variables. The model is helpful while understanding the behavior of the cutting process. The performance of the developed model is studied with the experimental data of MQL turning of alloy steel AISI 4340 material. The values obtained from the model and experimental for cutting forces are very nearer to each other. Also it is concluded that, in case of surface roughness, estimated equation is not appropriate for accurate prediction but could be used only for limited manner.


Journal for Manufacturing Engineers and Technocrats
ISSN: 0972-7308
MTT
Manufacturing Technology Today
Volume 20
Issue 7 - 8
July - August 2021
Central Manufacturing Technology Institute
Tumkur Road, Bengaluru - 560022

Analysis of effect of cutting parameters on surface roughness and cutting force during turning of aluminum alloy (AlSi5Cu3)

P. B. Patole*, G. J. Pol, A. A. Desai, S. B. Kamble

Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India

KEYWORDS

Turning,
Surface Roughness,
Cutting Force,
Cutting Parameters

ABSTRACT

The aim of this research work is focused on analysis of process parameters during turning of aluminium alloy ($AlSi_5Cu_3$). A study of effect of cutting parameters in turning of Aluminum Alloy ($AlSi_5Cu_3$) on the cutting force generated and machined surface roughness is carried out. In the experiment conducted, six values of feed rate, three values of depth of cut, and two values of cutting speed respectively, are used. The test pieces were turned on a centre lathe machine with different levels of cutting parameters by using full factorial design of experiment orthogonal array. The surface roughness of the machined surface was measured using surface measurement tester. Taguchi methodology was used to optimize process parameters. The results were analyzed by using Analysis of variance. From result analysis, it was found that, feed rate played a major role in producing lower surface roughness followed by cutting speed whereas depth of cut has least significance in producing lower surface roughness. To achieve better machining performance, the optimum condition parameters for surface roughness and cutting force, are as feed rate (FR = 0.045 m/min.), the cutting speed (CS = 90 m/min.), depth of cut (DOC = 0.5 mm). From analysis it is also seen that the cutting force equation and surface roughness equations are appropriate for accurate prediction. Thus, with proper selection of cutting parameters, it is possible to achieve good surface roughness, reduce tool wear while maintaining the cutting forces and temperatures at reasonable levels.

1. Introduction

Surface roughness plays an important role in metal cutting industry, as it influences the fatigue strength, coefficient of friction wear rate etc. of the machined parts [1,2]. In actual practice, there are various factors which affect the surface roughness and cutting force, such as tool geometry, work piece material and cutting conditions etc. Tool geometry include tool material, nose radius, cutting edge geometry, tool point angle, rake angle, etc [3,4]. Work piece variables include material, hardness and other mechanical properties. In turning operation, parameters such as cutting speed, depth of cut, feed rate and tool nose radius have great impact on the surface finish. Some of the researchers have developed the predictive model of surface roughness and cutting forces for the conventional turning, but these models may not be useful for hard as well as soft material turning, but such models differs from that of the conventional turning operation [5,6].

*Corresponding author,
E-mail: pb.patole@rediffmail.com

This paper deals with the turning of aluminum alloy ($AlSi_5Cu_3$) with tungsten carbide coated inserts. Taguchi parameter design and orthogonal array can optimize the response characteristics through settings of design parameters. Analysis of variance used to identify the most significant variables and interaction effects [7,8]. This study evaluate how to select the control parameter levels under turning of aluminum alloy (AlSi5Cu3 with parameters such as spindle speed, feed rate, depth of cut and tool nose radius that can minimize the effect of nuisance factor on response variable surface roughness. An experimental work is carried out to analyze the effect of cutting parameters on cutting force and surface roughness then select the optimal cutting parameters condition which will enhance the cutting performance and reduce cost during turning process.

2. Experimental procedure

Aluminum specimen piece (LM4) material is selected for experimentation. Before the turning operation, the specimen (LM4 round bar dia. 26 mm) has to be cut into desired dimension of

e–ISSN: 2395–0056 p–ISSN: 2395–0072

International Research Journal of Engineering and Technology

(An ISO 9001-2008 Certified Journal)

Fast Track Publications

Home | About Us | Current Issue | Past Issue | Archives | For Authors | Contact Us | Pay Online | FAQ

Call for Paper : Dec 2022

Submission Last Date: 31-Dec

Review Status : In 1 week

Online Publication : In 3 Days

- Initial Online submission
- Author Guidelines
- Processing Charges
- Final Online Submission
- ImpactFactor
- Indexing
- Citations
- FAQ
- Editorial Board
- Topics Covered
- Copyright Claims

Current News & Updates

IRJET Received "Scientific

in process for the November Issue ***** This website will be updated daily ***** We are here to :

International Research Journal of Engineering and Technology (IRJET) is an peer reviewed, open access, high Impact Factor,Multidisciplinary journal in English for the enhancement of research in various discipline of Engineering, Science and Technology. Prime Focus of the Journal is to publish articles related to the current trends of research . IRJET brings together Scientists, Academician, Engineers, Scholars and Students of Engineering Science and Technology.Published by Fast Track Publications.

Why Select IRJET?

- An ISO 9001:2008 Certified International Journal.
- Fast, Easy and Transparent paper publication process
- Low publication fee to promote the research work.
- IRJET Impact factor value : 7.529 for the year 2020 (Verify)
- IRJET is indexed in Google Scholar, academia.edu,Scribd, Slideshare & more..
- UGC Approved Journal in 2017
- IRJET is registered with Ministry of MSME, Govt. of India.
- Open Access Journal database for high visibility and promotion of your articles.
- Open Access Journal (No Subscription required to download Papers)
- Strict Plagiarism Policy
- IRJET provides Free Soft Copy of Certificate of Publication to each Authors.
- IRJET provides Hardcopy Certificate of Publication to each Authors.
- Authors can submit the papers at any time by online submission.
- Authors can pay Accepted paper publication Fee online by Net Banking/ Credit Card/

IRJET- Highlight's

ISO 9001:2008 CERTIFIED

OPEN Access JOURNAL

IRJET Impact Factor 7.529

Google Scholar

30,000+ Articles Published

ISSN

Plagiarism Checker Technology Partner

IRJET Citation Report

We're offli

Leave a me

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 08 Issue: 06 | June 2021 www.irjet.net p-ISSN: 2395-0072

Effect and Causes of Imbalance in Operating Mix on Shot Blasting Process and Suggested Remedies

Mr. Kadam Arjun Pandurang[1], Rohan Sanjay Varpe[2]

[1]*Assistant Professor Bharati Vidyapeeth's College of Engineering Kolhapur*
[2]*PG student, Bharati Vidyapeeth's College of Engineering Kolhapur*

Abstract - *Shot blasting being very common process in foundries, accountable for expenses through number of consumables like abrasive, electricity, wearable parts of machine. Supply as well cost for these consumables are extensively influenced by market conditions, government policies. Inappropriate utilization of these consumables results in heavy economical losses and are generally not recognized by semi or unskilled labor under continuous production. In concern abrasives being working fluid plays vital role to maintain optimum process cost under constrains of output quality and process time*

1.1 Introduction

Operating mix is the distribution of sizes of steel abrasive present at any instance in Machine Every particle completing its life cycle gets gradually decreases in its size. The same should be replaced by new fresh charge of abrasive after predefined instance of time or after defined blasted tonnage. Being working fluid of blasting machine, abrasives are most dominant cause for maintaining process cost. Process cost does include number of costs viz. Abrasive cost, electricity cost, maintenance cost, and Depreciation cost. An imbalance in operating mix causes these costs to vary drastically. Many of semi or unskilled workers do miss this indication of imbalance in Operating mix and do contribute high process cost.(Fig-1)

1.2 Effect on Electricity cost:

Coarse particles being heavy in mass do transfer high kinetic energy to substrate and hence tends high cleaning efficiency. While smaller particles with less mass do transfer lower amount of kinetic energy to substrate and hence posses less cleaning efficiency. Excessive amount of coarse particles will contribute to high surface roughness, while smaller particles cause to fine surface finish. Hence a well balanced operating mix is the one who does play both roles of cleaning with optimum time and surface finish constraints

Apart mass of particle, the traveling velocity of particle on blades also plays vital role on cleaning efficiency and on cycle time. The wearing of particle do changes the size as well shape of particle. Shape of particle determines velocity and direction of particle leaving blades.

Fig-1: Material removal under different particle size

Smaller particles being worn one have other than non spherical shapes and hence leaves blades at slower velocity by tumbling action and in delayed direction than to desired, while coarse particles being least worn with at most spherical in shape will leaves blades at faster velocity by gliding action in advance direction than to desired. This wrong direction will cause missing the hot spot **(Fig-3)** and hence less cleaning per indentation, consequently high cycle time. A Balanced operating mix is the one with 40% to 50% particles of nominal size and remaining decreasing gradually in size with 5% of eliminating size.

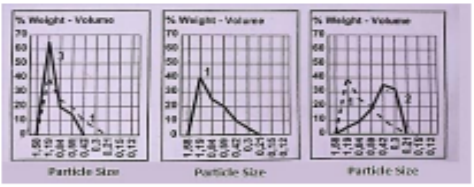


Fig-2: Operating mix under coarse, balanced, fine condition respectively

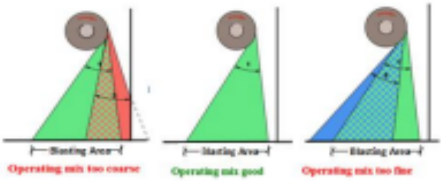


Fig-3: Change in hot spot as per change in operating mix

Following is the example illustrating the severity of change in cycle time.

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 08 Issue: 01 | Jan 2021 www.irjet.net p-ISSN: 2395-0072

Hydrocarbon Emission Analysis of Single Cylinder Diesel Engine for Acacia Nilotica (Babul Seed) Biodiesel

Miss. Anupama Kadam[1], Prof. S.M. Gawande, Prof. Abhay Shelar[3], Prof. A.P. Kadam[4]

[1]PG Search Scholar, Anantrao Pawar College of Engineering and Research, Pune, India
[2]HOD, Civil Engineering, Anantrao Pawar College of Engineering and Research, Pune, India
[3]Project Guide, Civil Engineering Dept., Anantrao Pawar college of Engineering and Research, Pune.
[4]Bharati Vidyapeeth College of Enginering, Kolhapur, India

Abstract - *Foremost requirement of population for healthy life is clean air. Tremendous growth in industrial and transport sector is responsible for emission of harmful gases causing prominent effect on human health and environment. Due to recent advancement in technologies, conventional fuel consumption rate has increased rapidly which has contributed multiple times to pollution. Conventional fuel which are based on fossil fuel are limited and are depleting with time. This made researches interest in developing alternative which is sustainable, ecofriendly and economic. Biodiesel is becoming prominent alternative for conventional fuel due to numerous advantages .Following paper represents investigation result carried to study Hydrocarbon emission of single cylinder, four stroke diesel engine using babul bio fuel and blend with diesel. It is observed that for blend 5% Hydrocarbon emission reduces and can be suitable alternative helping in controlling pollution of air.*

Keywords:-**Diesel engine, Babul seed biodiesel, emission, hydrocarbon, Prediction equation**

1. INTRODUCTION

From last few decades developing countries are focusing on advancement for faster development. This development may be in various sectors like transportation, industrial etc which intern has increased demand for conventional fuel. Conventional fuel are prominently responsible for increasing pollution and affecting environment adversely and rate of fuel consumption is increased, its demand has also increased causing its depletion. This made researches interest in developing alternative which is sustainable, ecofriendly and economic. Due to similar properties as conventional fuel and numerous advantages biodiesel has became potential alternative. Recent studies and research have made it possible to extract bio-diesel at economical costs and quantities. Major role of biodiesel is to form balanced policy, energy security and increase diesel longetivity. The blend of Bio-diesel with fossil diesel has many advantages like it is biodegradable, environmental friendly and economic. It has been seen that if whole lifecycle of biodiesel is considered it almost emits zero percent of sulphates , net small quantities of other pollutant and significantly has reduced emission up to 85% of carcinogenic compound It is observed that efficiency of engine increases and emission is controlled by use of Bio-diesel making it sustainable energy source. "Transesterification" method is used for production of biodiesel from vegetable oil. An alcohol and With the oil, alcohol is mixed in presence of catalyst so to crack in esters and glycerin is substituted by alcohol due to catalyst , and from mixture the heavy weight glycerin are to falls, leaving behind alkyl esters. Alkyl esters of fatty acids are left after removal of glycerol that is called as Biodiesel. Babul seeds has potential to extract oil from it and required properties for its use as biofuel and hence is used for making biodiesel.

2.EXPERIMENTAL SETUP AND DESIGN OF EXPERIMENT

2.1. Biodiesel produced from babul seed was tested using a single cylinder, four stroke diesel engine. Through fuel filter, fuel enters in engine. In fuel filter, filtration takes place and particular work is done by combustion at the end of working and from outlet manifold emission is exhausted. Exhaust emission is analysed using AIRREX HG-540 4-GAS EMISSION ANALYSER. Nearly for 20 years this analyzer has been produced and enhanced with time .The airrex hg-540 4-gas emission analyzer is used to measure emission from exhaust like HC,O2,CO,CO2,NOx. In a hard case with all accessories as a complete the analyzer comes and has ready-to-use gas analyzer. Switch on the power, make connection of the hose and probe, push the Zero button. The analyzer is ready for measurement of exhaust emissions gas when the zero is complete. In present paper emission for HC is measured.

AIRREX HG-540 5-gas emission analyzer

2.2 Specifications

AIRREX HG-540 5-GAS EMISSION ANALYSER


ISSN: 2005-4238
International Journal of
Advanced Science and Technology
IJAST
Science & Engineering
Research Support soCiety

International Journal of Advanced Science and Technology

HEALTH CARE SYSTEM TO BUILT SECURE PAITIENT RECORD BY USING BLOCKCHAIN AND ARTIFICIAL INTELLEGENCE

Ahmed Mohammed Ali, Vijay Ghorpade

Abstract

Data is the new fuel. In almost every sector data is maintained for future sector or domain investigation. This data is used for later information gathering, it can be a confidential data, and it is a system responsibility that data should be reliable and secure. knowledge and data needs to be transferred among various devices, this data transfer is a need to generation. There are many challenges in storing and retrieving this data in secure manner, also data should be available for each user according to their role. A system which is centralized is more prone to system halt. To protect this scenario and other potential hacks, block chain can be used. Blockchain uses consensus technology in which all nodes validates the nodes and changes which protect from any changes to the existence data. In case of clinical management is consensus and proof of work can protect the data, along with that in many situation there is a need of data mining so that instead of reliving on current dataset, historical dataset can be used to gain new knowledge and to find hidden pattern, in such scenario data gets exposed to other uses, this kind of data privacy concern and solutions are also addressed in this paper. It is observed that Block chain technology in health care system is not only more secure but also has less time and cost complexity over traditional health care data management system .

PDF

How to Cite

Vijay Ghorpade, A. M. A. (2020). HEALTH CARE SYSTEM TO BUILT SECURE PAITIENT RECORD BY USING BLOCKCHAIN AND ARTIFICIAL INTELLEGENCE. *International Journal of Advanced Science and Technology*, *29*(3s), 1218 - 1226. Retrieved from http://sersc.org/journals/index.php/IJAST/article/view/6075

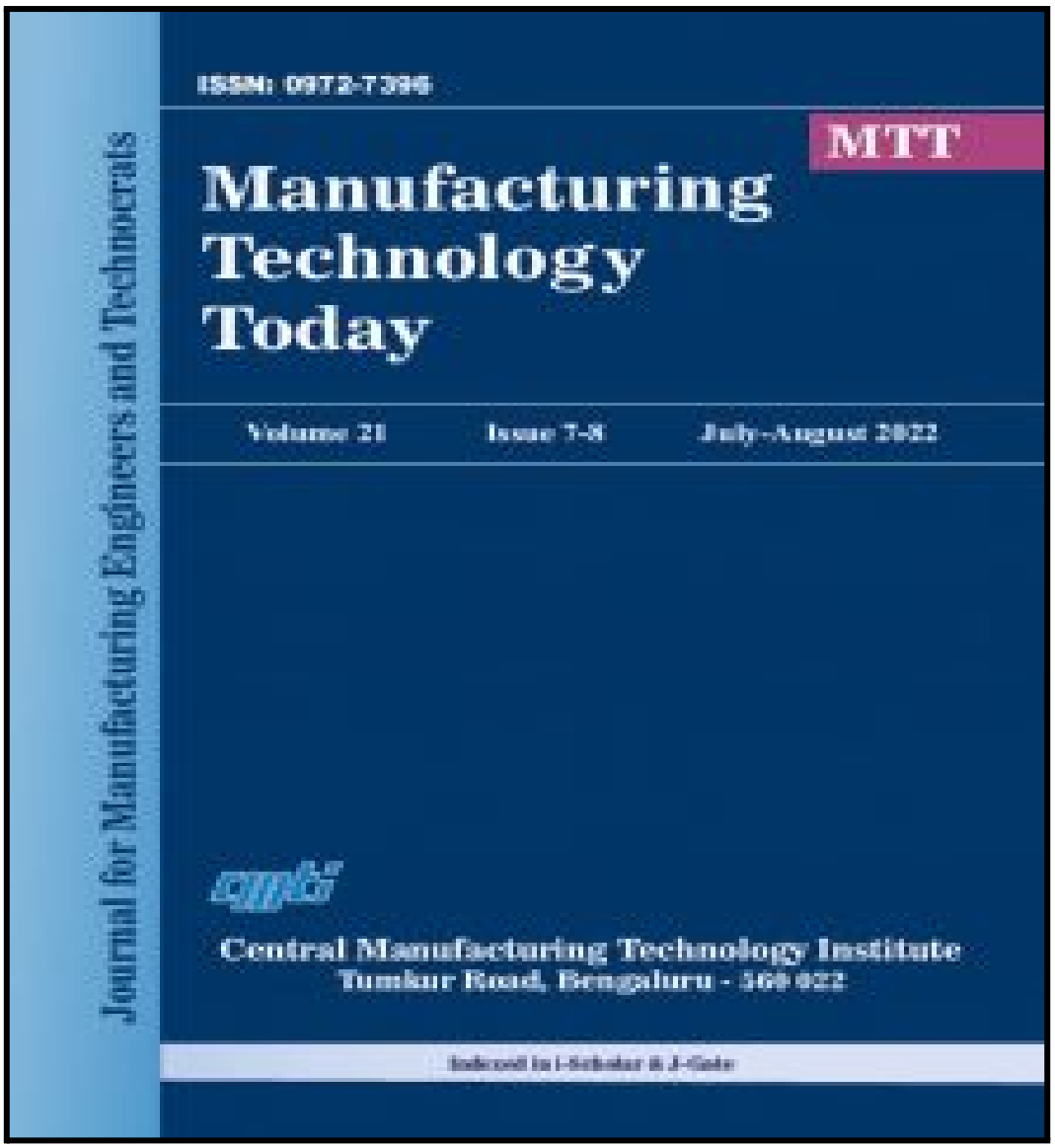
More Citation Formats

Issue

Vol. 29 No. 3s (2020): Vol 29 No 3s (2020) (Special Issue)

Section

Articles


ISSN: 0972-7396
MTT
Manufacturing Technology Today
Volume 21 Issue 7-8 July-August 2022
Journal for Manufacturing Engineers and Technocrats
Central Manufacturing Technology Institute
Tumkur Road, Bengaluru - 560 022

Vol 19, No 11 (2020) Pages: 20-27 Published: 2020-11-01

FEA Modeling And Prediction Of Surface Roughness Of Aluminum Alloy (LM4) During Turning Process

P. B. Patole [1], S. G. Bhatwadekar [2], V. V. Kulkarni [2], G. J. Pol [1]

Affiliations

1 Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India

2 SGI Atigre, Kolhapur, Maharashtra, India

Different cutting parameters have different influences on the surface finish. A study of effect of some of these parameters on the surface roughness of Aluminum alloy grade LM4 (AlSi5Cu3) is carried out in this work. In the experiment conducted, six values of cutting speed, three values of depth of cut, six values of feed and two values of tool nose radius are used. The experimentation was carried out using a three factor experiment principle from design of experiment. The chemical composition of the work material was tested using arc spectrometer and verified to be of grade LM 4. The values of parameters like cutting speed, feed rate and depth of cut were selected from the recommended ranges from the tool manufacturer catalogue. The test pieces were turned on a center lathe machine under different levels of these parameters. The surface roughness of the machined surface was measured using surface measurement tester. From the analysis of results the relationship between surface roughness and equivalent stress is established.

Keywords

Turning, surface Roughness, Equivalent Stress, Cutting Parameters.


ISSN: 2005-4238
International Journal of
Advanced Science and Technology
IJAST
Science & Engineering
Research Support soCiety

SOLAR PHOTOVOLTAIC (PV) WITH STATCOM FEATURE TO IMPROVE POWER QUALITY FOR DISTRIBUTION WITH MATLAB TOOL

Chougale Rajkumar Kundlik, Dr. P. Karpagavalli

PDF

Abstract

This paper demonstrates grid associated solar photovoltaic (PV) system with reactive power control as a STATCOM called as PV Solar STATCOM. A MATLAB tool gives a specific idea about the real and reactive power flow to the power system. A voltage source inverter (VSI) actually provides both real as well as reactive power to the grid as per the load demands. A reactive power flow in an power system defines the Power Quality (PQ), therefore needs to compensate. This is possible by means of PV solar STATCOM which enhances the quality of power and minimizes harmonics. A non-linear load is the principle cause of harmonics, while the PV system establishes power converters which are enormously producing source of harmonics. In this paper, the harmonics are controlled by a photovoltaic system (PV) on a distribution side by utilizing STATCOM feature with the use of MATLAB tool, which further improves power factor and therefore power quality as well.

How to Cite

Dr. P. Karpagavalli, C. R. K. (2020). SOLAR PHOTOVOLTAIC (PV) WITH STATCOM FEATURE TO IMPROVE POWER QUALITY FOR DISTRIBUTION WITH MATLAB TOOL. *International Journal of Advanced Science and Technology*, *29*(3s), 549 - 556. Retrieved from http://sersc.org/journals/index.php/IJAST/article/view/5668

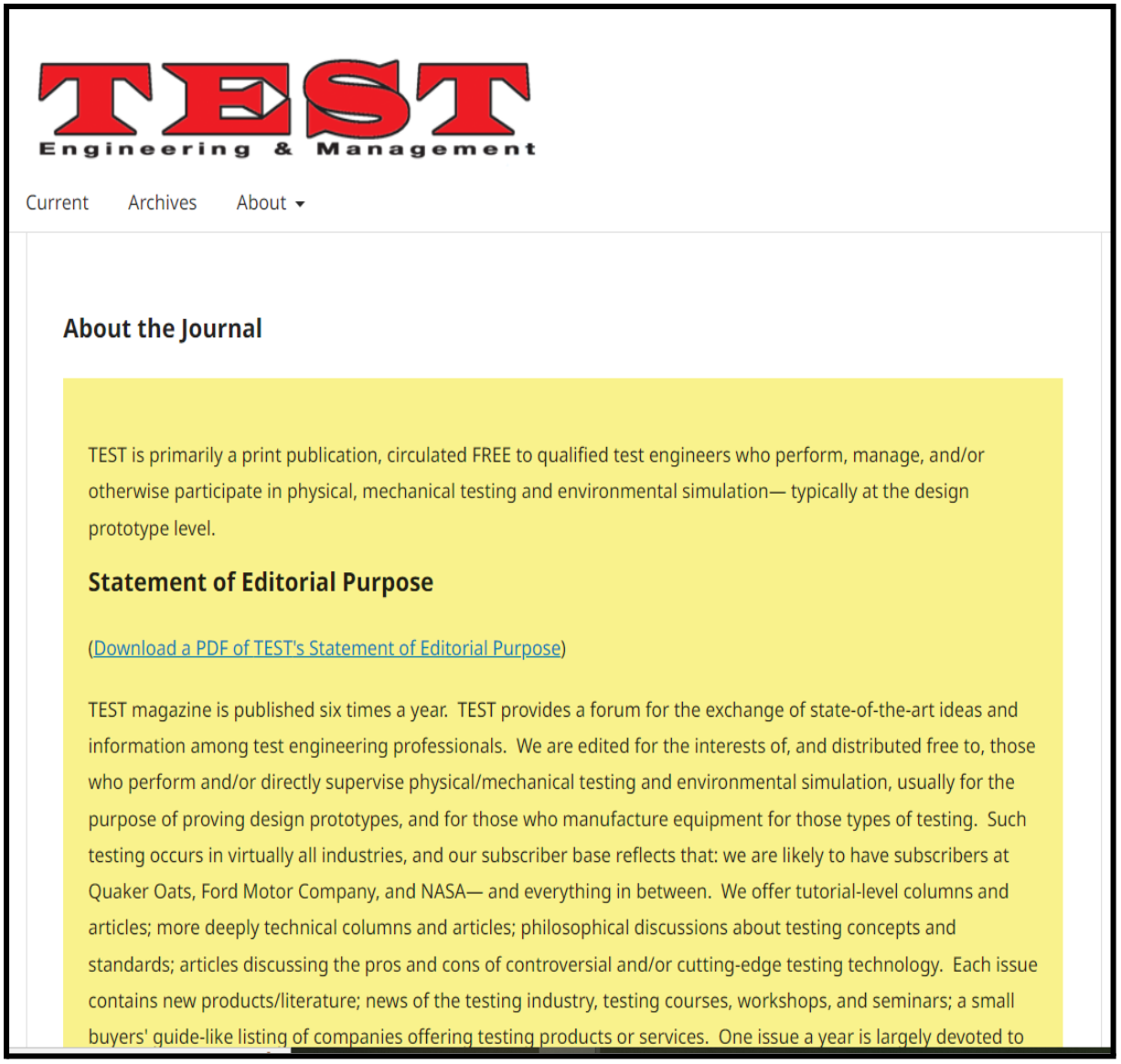
More Citation Formats

Issue

Vol. 29 No. 3s (2020): Vol 29 No 3s (2020) (Special Issue)

Section

Articles


TEST
Engineering & Management
Current
Archives
About
About the Journal
TEST is primarily a print publication, circulated FREE to qualified test engineers who perform, manage, and/or otherwise participate in physical, mechanical testing and environmental simulation— typically at the design prototype level.
Statement of Editorial Purpose
(Download a PDF of TEST's Statement of Editorial Purpose)
TEST magazine is published six times a year. TEST provides a forum for the exchange of state-of-the-art ideas and information among test engineering professionals. We are edited for the interests of, and distributed free to, those who perform and/or directly supervise physical/mechanical testing and environmental simulation, usually for the purpose of proving design prototypes, and for those who manufacture equipment for those types of testing. Such testing occurs in virtually all industries, and our subscriber base reflects that: we are likely to have subscribers at Quaker Oats, Ford Motor Company, and NASA— and everything in between. We offer tutorial-level columns and articles; more deeply technical columns and articles; philosophical discussions about testing concepts and standards; articles discussing the pros and cons of controversial and/or cutting-edge testing technology. Each issue contains new products/literature; news of the testing industry, testing courses, workshops, and seminars; a small buyers' guide-like listing of companies offering testing products or services. One issue a year is largely devoted to

March- April 2020
ISSN: 0193-4120 Page No. 22917 – 22930

Pv Solar Statcom to Improve Power Quality in Distribution System

Chougale Rajkumar Kundlik[1], Dr. P. Karpagavalli[2]

[1] Research Scholar, Dept. of Electrical Eng., Sri Satya Sai University of Technology& Medical Science, Bhopal, MP. India

[2] Research Guide, Dept. of Electrical Eng., Sri Satya Sai University of Technology& Medical Science, Bhopal, MP. India

Article Info
Volume 83
Page Number: 22917 – 22930
Publication Issue:
March - April 2020

Article History
Article Received: 24 July 2019
Revised: 12 September 2019
Accepted: 15 February 2020
Publication: 30 April 2020

Abstract

In this study we demonstrates grid-associated solar photovoltaic (PV) system with reactive power control as a STATCOM called as PV solar STATCOM. This research talks about the issues concerned to power quality for dispersed age systems dependent on sustainable power sources like solar energy. The study highlights a complete simulation, balance as well as modeling of grid connected PV module like evaluation of different problems associated with power quality are discussed and concluded. The power quality is substantially impacted by interconnection of unlimited sources of energy to the grid.

Keywords:Pv Solar Statcom, Power Quality, Energy Grid, Grid Modeling.

1. INTRODUCTION

Electrical essentialness is one of the fundamental and significant wellsprings of information that are basic to a country's budgetary development. In India today, around 15-20 percent of the electrical imperativeness created is lost, the voltage profile frequently goes beneath the perceived rate during the top burden. The power electronic innovation assumes a significant job in circulated age and in reconciliation of sustainable power sources into the electrical grid. To interface with RES, power electronics devices are used in converters. At the point when the converters with power electronic devices are utilized it presents a lot of harmonics in the system.

Harmonics causes bending of source voltage, extra misfortunes because of undesirable current streaming in the source and it might prompts breaking down of defensive transfers, mains and other control units. So it is important to lessen the measure of harmonics. Then again, the expanded utilization of delicate electronic circuits by ventures and family units together with privatization and rivalry in electric energy systems represented the power quality improvement as one of the major problems in power industry.

1.1 Different Sources of Renewable Energy

Renewable energy comes from natural resources like as sunlight (solar), wind, rain, tides and geothermal heat. These renewable resources can be naturally reutilized. In addition to homes and businesses, another important element of our industrialized society generates a considerable demand for electricity based energy. Therefore the, wind power, Solar, power, Small hydropower, Biomass and Geothermal are different source of Renewable Energy.

1.2 Renewable Energy in India: Progress, Vision, Strategy and Capacities

Today, India takes an initiative in systematic programs for renewable energy sources in both research and development.


INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS - IJCRT (IJCRT.ORG)
International Peer Reviewed & Refereed Journals, Open Access Journal
ISSN Approved Journal No: 2320-2882 | Impact factor: 7.97 | ESTD Year: 2013
Call For Paper - Volume 10 | Issue 11 | Month- November 2022
Scholarly open access journals, Peer-reviewed, and Refereed Journals, Impact factor 7.97 (Calculate by google scholar and Semantic Scholar | AI-Powered Research Tool) , Multidisciplinary, Monthly, Indexing in all major database & Metadata, Citation Generator, Digital Object Identifier(DOI)
HOME
IJCRT
EDITORIAL
FOR AUTHOR
CURRENT ISSUE
ARCHIVE
CONFERENCE PROPOSAL
SUBMIT PAPER ONLINE
Call For Paper November 2022
Call For Papers November 2022
IJCRT Search Xplore - Search all paper by Paper Name , Author Name, and Title
Search by Paper id, Published paper id, Paper Name , Author Name, and Paper Title
Click here to sear

IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Internet of Things Enabled Fire Resilient Building Automation System Using Artificial Intelligence Approaches

[1]Prachi Surgounda Patil,[2]Anil R. Surve,[3]Vijay R. Ghorpade

[1] M. Tech Student, Dept. of Computer Science and Engineering, Walchand College of Engineering Sangli, India,
[2]Department of Computer Science and Engineering, Walchand College of Engineering, Sangli, India,
[3]Principal, Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India.
[1]Computer Science and Engineering,
[1]Walchand College of Engineering, Sangli, India

Abstract: In recent years, fire accidents mainly in buildings are considerably increasing around the world. The reasons being due to overheating of pots and pan, improper way of keeping portable heaters, smoking in bedrooms, electrical equipment, candles near to explosive or flammable materials, faulty wiring, congested construction of the building and even due to increasing the number of population as well as improper light fittings. Fire outbreak is the third biggest risk to smart cities in India. According to the Indian Risk Survey (IRS) in 2018, 7.24% of accidents occur due to fire outbreaks [1]. So the demand of automation system to detect fire and take appropriate actions such as giving alerts as well as taking immediate action to reduce the intensity of fire has become obvious. In this zest, mainly two approaches are experimented and explored here. Primarily fire detection using machine learning approaches is achieved and also rule-based approach is employed with other relevant parameters. Different machine learning approaches like Deep Learning Neural Network (DNN), AlexNet, VGG-16, LeNet-5, and ResNet-50 experimented for classification of images and detection of fire based on image dataset. Also for rule-based system input from context-aware sensor system were taken and adjudged the intensity of fire according to different rules so as to initiate appropriate actions.

Index Terms **- Machine Learning, Deep Learning, Internet of Things, Rule-based System, fire reorganization, context aware, fire disaster management, Building Automation System.**

I. INTRODUCTION

The Internet of Things plays a vital role in the development of nations because it provided with a unique identity to every object which helps to take proper actions without human interaction. In real-world of automation it is the most important technology. Depends upon data given by various sensors and context, it automatically takes action in real-time. The varied potential domains are mainly healthcare, transportation logistics, automated vehicles monitoring, smart payment systems such as banking, smart space, agriculture, wearable computing, construction, real estate and smart home [2] .

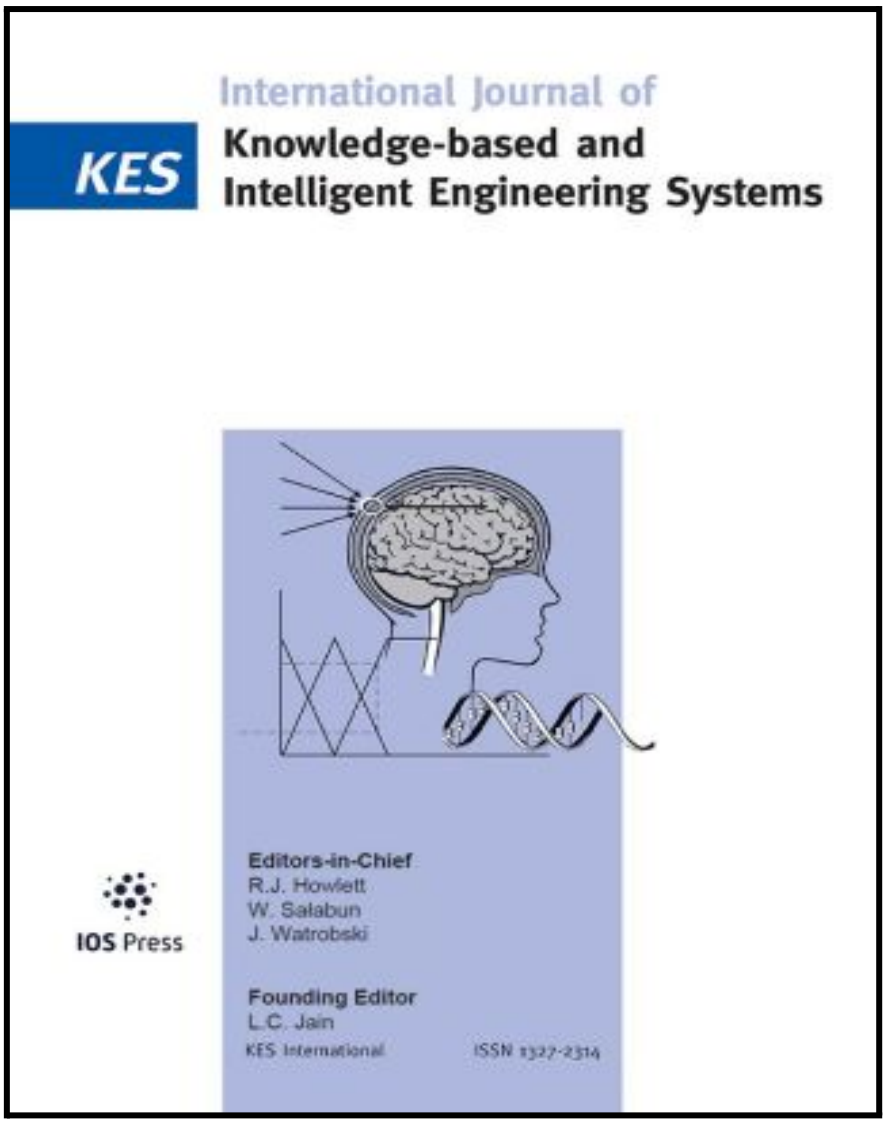
Smart building process aims to automatically control building operations. Instrumented sensors are enabled with IoT technologies to communicate and analyze data used to optimize building management systems. In the same zest, Smart home is the premier ranked application in Internet of Things by all channels. Smart home is basically aimed to help concerned people in their everyday activities. The different types of smart home application are Smart electricity meters, Smart home apps, and Smart parking in society buildings, automatic control of electrical appliances such as fans and lights, smart locks, recycling systems in home, security and protection in home [3].

Context-aware system is promising technological path of innovation which is integral part of Ubiquitous computing. It helps IoT to increase parameters and makes system more meaningful. According to system there are different contexts are present such as time, location, id, temperature, humidity, smoke and many more. A key objective of Context-awareness has significantly simplified in Human Computer Interaction (HCI) by deploying all possibilities of IoT devices such as sensors and actuators.

Machine learning is the subset of the Artificial Intelligence. It is a mathematical science that focuses on analyzing as well as interpreting of the patterns which are used for learning, dynamic decision making, reasoning outside of human interaction. ML is also used in various domains such as online fraud detection, product recommendation, social media services, video surveillance, predictions, classifications, object detection as well as Virtual Personal Assistants.

Recently, across the globe, fire accidents in buildings have become larger because lack of real time fire detection on the correct time and hence it has become necessary to build efficient fire management system in the design of smart cities. In the traditional systems, according to the intensity of fire, taking of appropriate actions dynamically is not available. Smart fire management system is important to minimize damage of life and property. Accurate and precise diagnosis of the intensity of fire has been a significant challenge.

The Machine learning object detection algorithm benefits to detect fire faster and in accurate manner. For detection of fire, the Deep Neural Network is promising which is an extension of the Convolution Neural Network. DNN mainly used for two purposes, first is for image classification and second is for object detection [4]. Rule based approach is mainly used to store and utilize knowledge or


International Journal of
KES
Knowledge-based and
Intelligent Engineering Systems
IOS Press
Editors-in-Chief
R.J. Howlett
W. Salabun
J. Watrobski
Founding Editor
L.C. Jain
KES International
ISSN 1327-2314

A trust management model based on NSGA-II in mobile grid system

Cite

Article type: Research Article

Authors: Otari, Grantej Vinod[a,*] | Ghorpade, Vijay Ram[b]

Affiliations: [a] Department of Computer Science and Engineering, Shivaji University, Kolhapur, Maharashtra, India | [b] Department of Computer Science and Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India

Correspondence: [*] Corresponding author: Grantej Vinod Otari, Department of Computer Science and Engineering, Shivaji University, K.I.T.'s College of Engineering, GokulShirgaon, Kolhapur, Maharashtra, 416234, India. Tel.: +91 9922401619/+91 9834661522; E-mail: Grantejv@gmail.com.

Abstract: Mobile Grid network connects large number of mobile devices like smartphones, tablets, PDAs, wireless digital medical equipment's etc for the purpose of sharing their resources and performing the task collaboratively and cooperatively. The mobile nodes participating in the mobile grid are autonomous and open in nature making them more vulnerable to data and control attacks made by malicious or selfish nodes. Preventing these malicious or selfish nodes and identifying the trusted nodes to participate in the network is an NP-hard problem. To recognize trusted nodes in the mobile grid system a novel trust management model is proposed in this paper by applying an elitist multi objective optimization algorithm Non-dominated Sorting Genetic Algorithm-II (NSGA-II). The proposed trust management model assesses the trust index of each mobile node in the network using various evaluation factors or attributes and then obtains the non-dominated set of trusted nodes in each front. Comparative analysis of the proposed trust model shows that the proposed model can be a potential candidate for implementing trust management in mobile grid network.

Keywords: NSGA-II, trust management, mobile grid system

WSEAS TRANSACTIONS ON SIGNAL PROCESSING

Print ISSN: 1790-5052
E-ISSN: 2224-3488

Volume 16, 2020

Notice: As of 2014 and for the forthcoming years, the publication frequency/periodicity of WSEAS Journals is adapted to the 'continuously updated' model. What this means is that instead of being separated into issues, new papers will be added on a continuous basis, allowing a more regular flow and shorter publication times. The papers will appear in reverse order, therefore the most recent one will be on top.

WSEAS TRANSACTIONS on SIGNAL PROCESSING
DOI: 10.37394/232014.2020.16.22

Predication and Analysis of Epileptic Seizure Neurological Disorder using Intracranial Electroencephalography (iEEG)

SANJAY S. PAWAR, *SANGEETA R. CHOUGULE ,
Ph.D. Scholar, Shivaji University Kolhapur, Assistant Professor, Bharati Vidyapeeth's College of Engineering, Kolhapur, (Maharashtra), INDIA.
sanjaypawar832@gmail.com

*Professor, Kolhapur Institute of Technology College of Engineering, Kolhapur, (Maharashtra), INDIA.
shivsangeeta.chougule@rediffmail.com

Abstract—Epileptic seizure is one of the neurological brain disorder approximately 50 million of world's population is affected. Diagnosis of seizure is done using medical test Electroencephalography. Electroencephalography is a technique to record brain signal by placing electrodes on scalp. Electroencephalography suffers from disadvantage such as low spatial resolution and presence of artifact. Intracranial Electroencephalography is used to record brain electrical activity by mounting strip, grid and depth electrodes on surface of brain by surgery. Online standard Intracranial Electroencephalography data is analyzed by our system for predication and analysis of Epileptic seizure. The pre-processing of Intracranial Electroencephalography signal is done and is further analyzed in wavelet domain by implementation of Daubechies Discrete Wavelet Transform. Features were extracted to classify as preictal and ictal state. Analysis of preictal state was carried out for predication of seizure. Intracranial Electroencephalography signals provide better result and accuracy in seizure detection and predication. Earlier warning can also be issued to control seizure with anti- epileptic drugs.

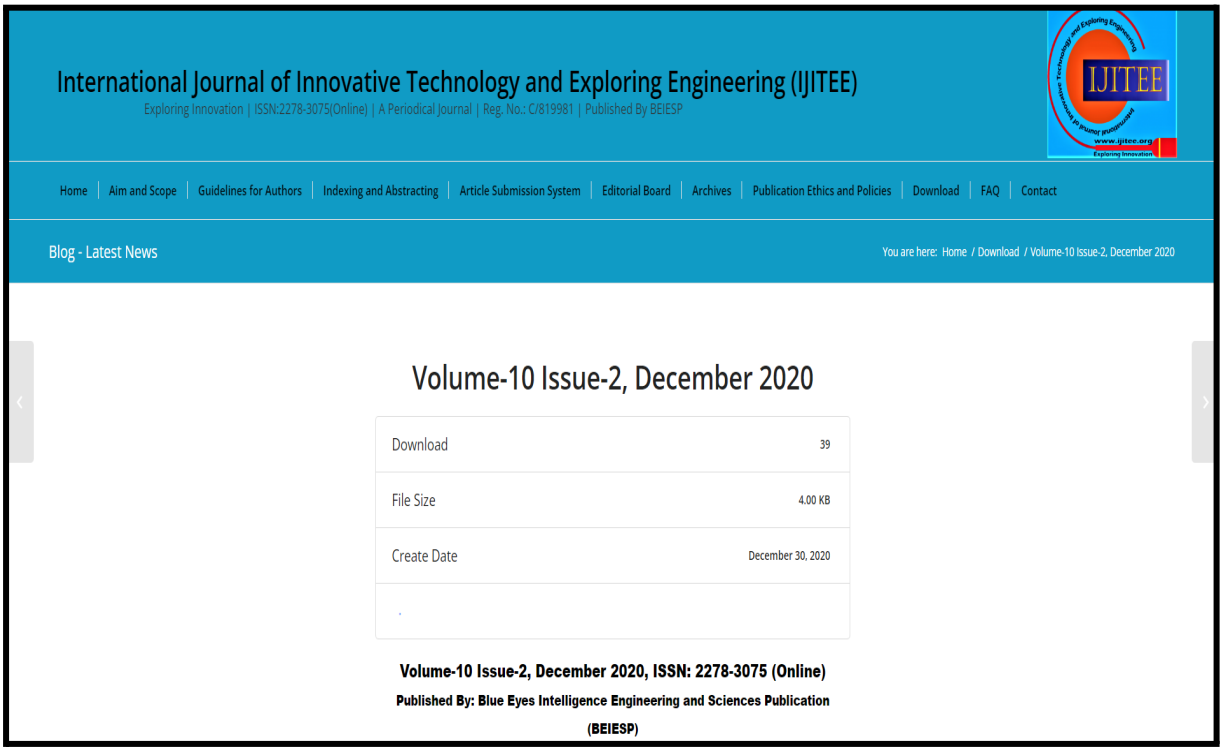
Keywords—Artifact, Daubechies Discrete Wavelet transform, Epileptic Seizure, Intracranial Electroencephalography, Seizure Classification, Seizure Predication.

Received: August 1, 2020. Revised: December 13, 2020. Accepted: December 27, 2020. Published: December 31 , 2020.

1. Introduction

The status of human whole body is represented by brain function. Central Nervous System (CNS) consists of neurons which transmits information in responses to simulation. Simulation of neuron generates action potential in the voltage range between negative 60 mv to positive 10 mv and the action potential generated remains for 5 Mill second to 10 Mill seconds. Scalp Electroencephalography is used for recording of brain signal to diagnosis many neurological disorders and to detect abnormalities in human body. Electroencephalography signals are used for investigation of Epileptic seizure and testing of drug effect on Epilepsy patients [1]. Scalp Electroencephalography suffers from disadvantage such as low spatial resolution and the signals acquired may be contaminated with noises which are called as artifacts. Presence of artifact affects the performance of seizure detection system and predication of seizure is also difficult in scalp Electroencephalography. Intracranial Electroencephalography (iEEG) is a clinical technique where strip, grid or depth electrodes are implanted on surface of brain by surgery to monitor brain activities. Intracranial Electroencephalography helps in exact diagnosis of epilepsy syndrome and in planning of drug management for epileptic surgery. Intracranial Electroencephalography confirm region of seizure for planning epilepsy surgery. Development of seizure predication system may enhance quality, safety and life of patient.

Detection of Epileptic seizures using Electroencephalography (EEG) dataset and Intracranial Electroencephalography (iEEG) dataset has attracted many researchers to develop various algorithms with good sensitivity, specificity, accuracy and True predicative value. Automatic seizure detection was carried out using wavelet decomposition in five scales of multi-channel intracranial EEG. Features such as Energy, relative amplitude, coefficient of variation and fluctuation index were extracted and classified using support vector machine for seizure detection [2]. One–class support vector machine novelty detection method was implemented for detecting of seizure using Intracranial Electroencephalography. Short-time, energy-based statistics were computed. Validation of detector was done using leave-


International Journal of Innovative Technology and Exploring Engineering (IJITEE)
Exploring Innovation | ISSN:2278-3075(Online) | A Periodical Journal | Reg. No.: C/819981 | Published By BEIESP
IJITEE
Home | Aim and Scope | Guidelines for Authors | Indexing and Abstracting | Article Submission System | Editorial Board | Archives | Publication Ethics and Policies | Download | FAQ | Contact
Blog - Latest News
You are here: Home / Download / Volume-10 Issue-2, December 2020
Volume-10 Issue-2, December 2020
Download 39
File Size 4.00 KB
Create Date December 30, 2020
Volume-10 Issue-2, December 2020, ISSN: 2278-3075 (Online)
Published By: Blue Eyes Intelligence Engineering and Sciences Publication
(BEIESP)

International Journal of Innovative Technology and Exploring Engineering (IJITEE)
ISSN: 2278-3075 (Online), Volume-10 Issue-2, December 2020

Classification and Severity Measurement of Epileptic Seizure using Intracranial Electroencephalogram (iEEG)

Sanjay Shamrao Pawar, Sangeeta Rajendra Chougule

Abstract: ***The Epileptic seizure is one of major neurological brain disorders and about 50 million of world's population is affected by it. Electroencephalography is medical test which records brain signal by mounting electrodes on scalp or brain cortex to diagnosis seizure. Scalp Electroencephalography has low spatial resolution and presence of external artifact as compared to Intracranial Electroencephalography. In Intracranial Electroencephalography strip, grid and depth type of electrodes are implanted on cortex of brain by surgery to measure brain signal. Analysis of brain signal was carried out in past in diagnosis of Epileptic seizure. Seizure classification and Severity measurement of Epileptic Seizure are still challenging areas of research. Seizures are classified as focal seizure, generalized and secondary generalized seizure depending upon the area of brain which it generates and how it spreads. Classification of seizure helps in treatment of seizure and during brain surgery to operate on brain part which is responsible for continuous seizures generation. Developed seizure classification algorithm classifies seizures as focal Seizure, generalized Seizure and secondary generalized seizure depending on the percentage of iEEG electrodes detecting seizure activity. Seizure severity measurement scale is developed by modification in National Hospital Seizure Severity Scale. Seizures are graded as Mild seizure, Moderate seizure and severe seizure depending on its severity. Seizure Classification and Seizure Severity Measurement improves life quality of Epileptic patients by proper drug management.***

Keywords: ***Epileptic Seizure, Intracranial Electroencephalography, Quality of life, Seizure Classification, Seizure Severity Scale***

I. INTRODUCTION

The function of brain represents the status of whole human body. The neurons present in Central nervous system (CNS) transmit information in responses to simulation. The action potential is generated in response to simulation, which is in the voltage range between negative 60 millivolt to positive 10 millivolt.

Revised Manuscript Received on December 30, 2020.
* Correspondence Author
Sanjay Shamrao Pawar*, Ph.D. Scholar, Shivaji University Kolhapur, Assistant Professor, Bharati Vidyapeeth's College of Engineering, Kolhapur, (Maharashtra), India. Email: sanjaypawar832@gmail.com
Sangeeta Rajendra Chougule, Professor, Kolhapur Institute of Technology College of Engineering, Kolhapur, (Maharashtra), India. Email: shivsangeeta.chougule@rediffmail.com

The action potential generated remains for time period of 5 Mill second to 10 Mill seconds [1]. Electroencephalography is a medical test used for recording the brain signal by placing electrodes on scalp or implanting electrodes on cortex of brain. The brain signals are used to diagnosis various neurological disorders and to detect abnormalities in human body. Scalp Electroencephalography and Intracranial Electroencephalography (iEEG) are used for diagnosis of Epileptic seizure and testing of anti-epileptic drug effect on Epilepsy patients [2]. Scalp Electroencephalography has low spatial resolution as compared to Intracranial Electroencephalography (iEEG). The brain signals acquired by scalp EEG may be contaminated with presence of artifacts and may affect accuracy during seizure classification and seizure severity. Intracranial Electroencephalography (iEEG) is a clinical technique where strip, grid or depth electrodes are implanted over the cortex of brain by surgery to monitor brain activities. Classification of seizure provides exact region of brain from where the seizures are generated and how it is spread. Classification is helpful in drug management and epileptic surgery. Seizure severity measurement and grading the seizure as Mild seizure, Moderate seizure and severe seizure is helpful in surgical treatment and drug management. Classification of seizure and severity measurement can improve life quality of Epileptic patients by proper drug management. Diagnosis of Epileptic seizures using scalp Electroencephalography (EEG) dataset and Intracranial Electroencephalography (iEEG) dataset has attracted many researchers to develop various algorithms. Seizure classification and seizure severity measurement still remains neglected area of research. Automatic seizure detection was carried out by implementation of wavelet decomposition in five scales of multi-channel intracranial EEG. Features such as Energy, relative amplitude, coefficient of variation and fluctuation index were extracted and classified using support vector machine for seizure detection [3]. One–class support vector machine novelty detection method was implemented for detecting of seizure using Intracranial Electroencephalography. Short-time, energy-based statistics were computed. Validation of detector was done using leave-one-out cross-validation [4]. Seizure detection was carried out using Lacunarity and Bayesian Linear Discriminant Analysis (BLDA) using long-term Freiburg intracranial EEG dataset.


Vol. X No. 1
February 2018
The IUP Journal of
Telecommunications
IUP
IUP Publications
(A Division of The ICFAI Society)
www.iupindia.in

Reconfigurable Filter Design and Testing with ISTS Standard for Proposed Hearing Aid Application

Manik S Sonawane and S R Chougule***

Digital Hearing Aid (DHA) device selectively filters sound signals in subbands. Gain is added as per hearing loss mentioned in audiogram. DHA uses digital filters and amplifies processed signal, and this signal is transferred to the ear. Multiple DHA manufacturing companies all over world have innovative and miniature DHA devices in their product range. They do rigorous research and development to improve product functionalities. Most of them use design method of digital filters using selective amplification by adding gain to subband where patients have hearing loss. Nowadays, DHAs are more customized to individual patient hearing loss characteristics. Most of the available hearing aid designs use filter banks with fixed subbands. The paper focuses on reducing the complexity of the algorithms improving DHA user experience in changing noise and proposes a single reconfigurable transfer function type of digital Finite Impulse Response (FIR) filter to achieve a best fitting to audiogram as per the specifications with IEC 60118-15 standard, and the processed signals are tested with ITU-T-PESQ standards. The paper uses International Speech Test Signal (ISTS) standard speech audio signal to test designed filter, and the results are found to be very satisfactory compared with the fixed filter banks. The paper discusses combined or reconfigured transfer function approach for use in DHA devices and design of reconfigurable FIR filter bank with adjusting different parameters in terms of requirements of DHA.

Keywords: Hearing loss, Digital Hearing Aid (DHA), Digital filters, Reconfigurable filter, Perceptual Evaluation of Speech Quality (PESQ), International Speech Test Signal (ISTS)

Introduction

Digital Hearing Aid (DHA) is very beneficial for people having hearing loss problems. These patients can get hearing benefit using a DHA device. In real world, only 20% of hearing affected patients purchase a hearing aid and around 25% of them do not use DHA due to irritating noise and unpleasant whistles. Some DHAs have processed signal with other amplified noises due to surrounding background noise

* Assistant Professor, Department of Electronics and Telecommunication Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India; and is the corresponding author. E-mail: maniksonawane@aol.in

** Professor, HOD, Department of Electronics and Telecommunication Engineering, KIT'S College of Engineering, Kolhapur, Maharashtra, India. E-mail: shivsangeeta.chougule@rediffmail.com


ARME
Asian Review of Mechanical Engineering
An International Peer Reviewed Journal on Mechanical Engineering
TRC RESEARCH
PUBLICATION

Asian Review of Mechanical Engineering
ISSN: 2249-6289 Vol.9 No.1, 2020, pp. 25-29

Review on the Effect of Geometrical Parameter on Heat Transfer Performance for LED

A. R Jadhav[1], S. V. Kumbhar[2] and G J Pol[3]
[1&3]Assistant Professor, Department of Mechanical Engineering,
Bharti Vidyapeeth College of Engineering, Kolhapur, Maharashtra, India
[2]Assistant Professor, Department of Mechanical Engineering,
S.I.T. College of Engineering, Maharashtra, India
E-Mail: arjmesa@gmail.com, sujit.kumbhar64@sitcoe.org.in, gajendrapol@gmail.com

***Abstract* - LED lamp use increases day by day. In LED about 80% of energy is converted into heat. Excess heat causes a decrease in life as well as illumination efficiency. In this paper, we reviewed the different techniques used for the cooling of the LED. Generally, the passive method is preferred in the cooling of the LED. An experimental and numerical study was done by the researcher to obtain optimum arrangement for heat dissipation from the heat sink of the LED. Qie shen discussed the effect of orientation of fin on a rate of heat transfer. Hao wegang studied the effect of fin length fin height synergy angle on thermal resistance. Yicang Huang carried out a numerical simulation of the different arrangements of heat sinks like conventional and OPF and PPF. The spiral profile is the best in heat dissipation is discussed by P Ranjith.**
***Keywords:* LED, Heat Sink, Orientation**

I. INTRODUCTION

Nowadays, conventional light source is replaced by an LED lamp for energy saving purposes. The LED light has compact in size and more energy efficient. It is an environment-friendly source. The life of LED chips and illumination is affected by junction temperature. The radiant efficiency of the high-power LED will decrease with an increase in junction temperature and the luminous efficiency of LED increased with the decrease in Junction Temperature. Around 20 to 30% of energy is converted into light and remaining is converted into heat. The Heat is a waste product in Led working So it may be dissipated quickly. This heat will hamper on the life of LED as well as the illumination of the LED. The various techniques are available for waste heat dissipation from LED like active and passive. The passive technique is cost-efficient, and it will require less space, so it is widely used. The extended surface is the most reliable and cost-efficient passive technique. Generally, a rectangular fin array is used in LED.

II. REVIEW OF PAPERS

Thermal management of the LED is nowadays more important, so Various researcher works on the optimization of the heat sink of the LED. Fin length, number of fin, shape or profile of fin, the material of fin, fin spacing, the thickness of the base plate, height of fin, width of the fin are the important parameters that need to optimize for higher heat transfer rate. The few of them reviewed below.

Qie Shen *et al* [2] carried out experimental as well as numerical study for understanding orientation effect on fluid flow and heat transfer for rectangular fin array under natural convection. Heat sink made up of aluminium alloy 5083 and setup consist revolving frame to achieve the desired orientation. The size of the baseboard is 123mm*157mm and aluminium base thickness is kept 10mm also fin height and fin thickness kept 50mm and 2mm, respectively.

They kept the steel plate in between the two copper plates to simulate the LED generating heat. The heating layer is covered by PCB &PMMA Lampshade over which silicone grease is spread. They carried out the test for 12, 24, and 35 W heat power. The experimental setup, as well as a revolving arrangement of the heat sink shown in the fig.no.1. numerical analysis is carried out for 8 orientations.

The experimental and numerical result is compared in this paper, they observe slightly more variation between predicted and observed excess temperature. For 7& 11 number of fins observed less variation in thermal performance from 0^0 to135^0. For 270^0 orientation around 40% of excess temperature rise is observed. Inflow analysis they observed, 315^0 orientation for 16 numbers of the fin has better heat dissipation performance and 180^0, 225^0, 270^0 have poor heat transfer.

In this paper, they made the following conclusion

1. Denser fin array is more sensitive to orientation
2. Orientation effect factor based on heat dissipation for 135^0, 225^0, 315^0 are 99%, 76%, 91% respectively.


ISSN (Online): 2319-8753 / ISSN (Print): 2347-6710
ijirset@gmail.com | CONTACT US
IJIRSET
International Journal of Innovative Research in Science,Engineering and Technology
(A High Impact Factor, Monthly, Peer Reviewed & Referred Journal)
ABOUT US TOPICS AUTHORS CURRENT ISSUE OCTOBER 2022 IMPACT FACTOR PEER REVIEW INDEXING FAQ
Impact Factor : 8.118 | Author submit manuscript to ijirset@gmail.com |
Recent News
Call for Papers
Vol. 11, Issue 12, Dec 2022
Paper Submission:31st Dec 2022
Notification :within 24 hours
Publication :within 24 hours
E-Certificates :Immediate
Authors Desk
Call For Papers
Author Guidelines
Publication Charges
Publication Policy
Digital Object Identifier
WELCOME TO IJIRSET!
The International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET) is a High Impact Factor, Open Access, International, Monthly, Peer-Reviewed journal. The journal aims at promoting innovative research in various disciplines of Science, Engineering and Technology. IJIRSET invites authors to submit original and unpublished work in terms of written reviews, short
Impact Factor
IJIRSET
[2022]
IMPACT FACTOR
8.118
WHATSAPP
+91 63819 07438
Digital Object Identifier
MEMBER
ref

International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET)

| e-ISSN: 2319-8753, p-ISSN: 2320-6710| www.ijirset.com | Impact Factor: 7.089|

||Volume 9, Issue 4, April 2020||

Production Planning Control of Bottlenecks by Operation Shifting in Workplace

Jitendra G. Shinde[1], Shamuvel V Pandit[2], Raju B Lokapure[3], Sunil J. Kadam[4]

Assistant Professor, Department of Mechanical Engineering, BVC Engineering, Kolhapur, Maharashtra, India[1]

Assistant Professor, Department of Mechanical Engineering, BVC Engineering, Kolhapur, Maharashtra, India[2]

Assistant Professor, Department of Mechanical Engineering, BVC Engineering, Kolhapur, Maharashtra, India[3]

Associate Professor, Department of Mechanical Engineering, BVC Engineering, Kolhapur, Maharashtra, India[3]

ABSTRACT: Manufacturing firms primarily aim at maximizing profit by way of meeting the customer demands with respect to quantity, quality, cost and time through optimum utilization of available resources such as; manpower, inventories, plant and facilities etc. Sometimes, due to various bottlenecks the demand is not fulfilled. This paper concerns the production planning and control of bottlenecks by operations shifting in medium scale industry.. It is possible to improve performance of manufacturing system by improving throughputs, reduction in WIP inventories; improve on time delivers and better utilization of constraint resources. Operation shifting on bottlenecks is applicable to any kind of industry for improving scheduling planning.

KEYWORDS: Bottlenecks, Production line, Production process, production line layout, workplace.

I. INTRODUCTION

Competing situations in today's manufacturing environment force organizations to adopt a new Production Management System (PMS). In the last three decades, different PMS systems have been developed: MRP II, JIT, and TOC. The traditional approach, MRP, is "passive" in that it plans and controls a production system that it assumes rates and times are fixed. These include, but are not limited to, setup times, processing times, move and queue times, breakdown rates, repair times, and scrap rates. Within the constraints of this fixed environment, it tries to maximize the production output. JIT, on the other hand, is 'active'. It reduces inventory levels, making production plans difficult to execute unless improvements are made in the production system. Typical improvements include reducing setup times, move and queue times, breakdown rates, repair times and scrap rates. JIT tries to achieve two equally important goals maximize production and make improvements [Miltenburg, 1997] [8].Both MRP II and JIT have their own weaknesses to deal with in different conditions [Fogarty et. al., 1991] [2]. MRP ignores improvement of the production system. To be successfully implemented, JIT needs very rigid and restricted conditions.

Operation shifting on bottlenecks can be summarized as a solution for continuous improvement including operations strategy tools, performance measurement systems, and thinking process tools [Cox and Spencer 1998] [1]. The operations strategy tools include the five focusing steps, VAT analysis, and specific applications such as production management (drum-buffer rope, buffer management, batching, and product mix analysis), distribution management, and project management.

II. IDENTIFICATION OF BOTTLENECKS

The comparison between available capacity and the required capacity (demand) is very useful to identification of constraint resource (CR). The resource having capacity less than demand is identified constraint resource (CR). The resource having available capacity more than required capacity (demand) is identified as non constraint resource (NCR). When the available capacity matches with demand those resources are identified as capacity constraint resource (CCR). If the capacity constraint resources are not scheduled properly, they will become constraint resources. Hence equal amount of attention is given towards the capacity constraint resources.[4]

Table no.1 shows the comparison between total available capacity of each resource and total required capacity of each resource in the housing production line. Identification of constraint resource by comparing available capacity and demand placed on each resource is shown in table no. 1


Home Guide Lines Submit Paper Volumes Conferences Editorial Board Indexing Contact
Search Paper
Search
International Journal of Advance Research and Innovation
ISSN: 2347-3258
Objectives
International Journal of Advance Research and Innovation (IJARI) is a peer reviewed, multi-disciplinary journal. The Journal encourages all experienced and qualified young and senior researchers, professionals, and other stakeholders to share their knowledge and experiences. IJARI invites original manuscripts, review articles and innovative research papers. This platform provides an international forum for researchers to exchange ideas in recent advances on various aspects of theories, analysis, experiments and computational methods in science, technology and management.
Scope of the Journal
International Journal of Advance Research and Innovation (IJARI) is devoted to a wide range of subfields in the Science and Technology. While it, encourages a broad spectrum of contribution in the Science and Technology. Articles of interdisciplinary nature are particularly welcome in this Journal. International Journal of Advance Research and Innovation (IJARI) is a peer-reviewed scientific journal that publishes original articles and research notes in all areas of general studies. Manuscripts submitted for publication will be subjected to single blind peer-review and assessed for their contribution to scientific understanding of Science and Technology. Work resulting in fundamental insights that benefited to our society, is relevant to the journal. Journal also welcomes to well-design and well-documented experimental studies and advanced knowledge in the related subject areas .
International Journal of Advance Research and Engineering is an interdisciplinary journal with interfaces to other branches of Engineering, Science and Technology as well as with Applied Science and Applied Economics. IJARI publishes manuscripts on research, development and design related to

Volume 8 Issue 3 (2020) 248-252 ISSN 2347 - 3258
International Journal of Advance Research and Innovation

Design and analysis of single plate clutch by mathematical modelling and simulation

Kedar Kishor Patil, Vinit Randive, Sahil Mulla, Rajkumar Parit, Sagar Mane, Sunil Kadam
Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering Kolhapur, Maharashtra, India

Article Info
Article history:
Received 11 January 2020
Received in revised form 29 May 2020
Accepted 30 July 2020
Available online 15 September 2020

Keywords Modeling single plate clutch using CATIA, Analysis of single plate clutch using ANSYS, Clutch materials,

Abstract: This paper addresses Modeling and analysis of single plate clutch which is used in Tata Sumo vehicle. Clutch is the most significant component located between engine and gear box in automobiles. The static and dynamic analysis were developed for a clutch plate by using finite element analysis (FEA). The 3D solid model was done using CATIA V5R16 version and imported to ANSYS work bench 19.0 for structural, thermal and modal analysis. The mathematical modelling was also done using six different materials (i.e. Steel, Stainless Steel, Ceramics, Kevlar, Aluminum alloy and Gray Cast iron); then, by observing the results, comparison was carryout for materials to validate better lining material for single plate clutches using ANSYS workbench 19.0 and finally conclusion was made.

1. Introduction

Clutch is the first element of power train used on the transmission shafts. The main function of clutch is to engage and disengage the engine to transmission, when the driver needs or during shifting of gear. When the clutch is in engaged position, the power flows from the engine to the wheel and when it is in disengage position, the power is not transmitted to the wheel. In automobile, a gearbox is required to change the speed and torque of the vehicle. If we change a gear, when the engine is engaged with gearbox or when the gears are in running position then it can cause of wear and tear of gears. To overcome this problem a clutch is used between gearbox and engine. Some friction plates, sometimes known as clutch plates are kept between these two members. The clutch is based on the friction. When two friction surfaces brought in contact and pressed, then they are united due to friction force between them. The friction between these two surfaces depends on the area of surface, pressure applied upon them and the friction material between them. The driving member of a clutch is the flywheel mounted on the engine crankshaft and the driven member is pressure plate mounted driving shaft to the driven shaft so that the driven shaft may be started or stopped at will, without stopping the driving.

The two main types of clutch are: positive clutch and friction clutch. Positive clutches are used when positive drive is required. The simplest type of a positive clutch is a jaw or claw clutch. A friction clutch has its principal application in the transmission of power of shafts and machines which must be started and stopped frequently. The force of friction is used to start the driven shaft from rest and gradually brings it up to the proper speed without excessive slipping of the friction surfaces. In automobiles, friction clutch is used to connect the engine to the drive shaft. The primary aim of this work is to design a rigid drive clutch system that meets multiple objectives such as Structural strength.

Gradual engagement clutches like the friction clutches are widely used in automotive applications for the transmission of torque from the flywheel to the transmission. The three major components of a clutch system are the clutch disc, the flywheel and the pressure plate. Flywheel is directly connected to the engine's crankshaft and hence rotates at the engine rpm. Bolted to the clutch flywheel is the second major component: the clutch pressure plate. The spring-loaded pressure plate has two jobs: to hold the clutch assembly together and to release tension that allows the assembly to rotate freely. Between the flywheel and the pressure plate is the clutch disc. The clutch disc has friction surfaces similar to a brake pad on both sides that make or break contact with the metal flywheel and pressure plate surfaces, allowing for smooth engagement and disengagement. In an automobile clutch is need for torque transmission; gradual engagement; heat dissipation; dynamic balancing; vibration damping; size; inertia and ease of operation of vehicle.

Corresponding Author.
E-mail address: kedarkishorpatil@gmail.com

2.Selection of Material

The following materials used for Friction clutch plate:

2.1. Gray cast iron as Friction material

Gray has a graphitic microstructure. The clutch disc is generally made from grey cast iron this is because it has a good wear resistance with high thermal conductivity and the production cost is low compare to other clutch disc materials.

2.2. Kevlar 49 as friction material

Kevlar was introduced by DuPont in the 1970s. It was the first organic fiber with sufficient tensile strength and modulus to be used in advanced composites. Originally developed as a replacement for steel in radial tires, Kevlar is now used in a wide range of applications.

2.3 Ceramic as friction material

Ceramic clutch plates are, ironically, made with a combination of copper, iron, bronze, and silicon and graphite. Because of their metallic content, these discs can withstand a lot of friction and heat. This makes them ideal for race cars and other high-speed vehicles that need to engage and disengage from fast-moving flywheels.

2.4 Aluminum alloy as friction material

The unique properties of aluminum composites are better comparing to other conventional materials. Aluminum composites can use because of its strong bonding, good corrosion resistance, good wet ability, low density and high flexibility.

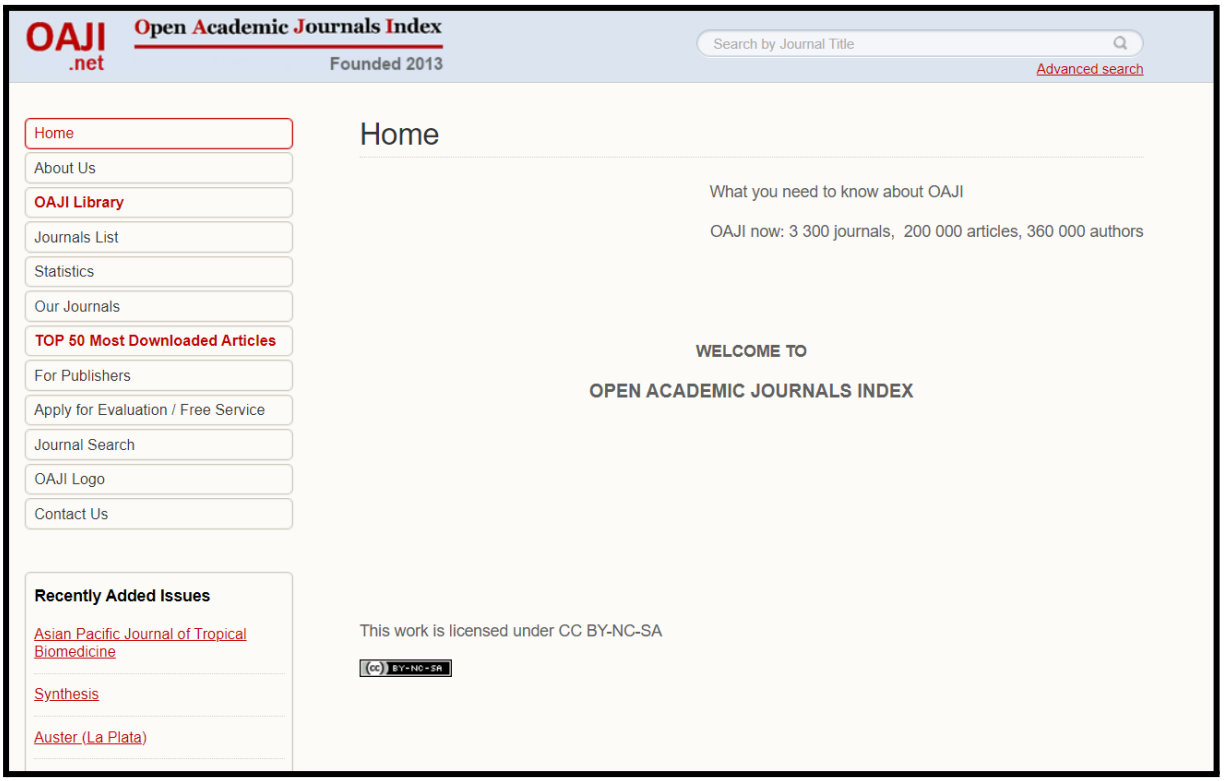
2.5 Steel as friction material

Steel is the primary mating surface used in clutches and can be used as the primary heat sink or the means to dissipate the energy into the ambient surroundings. In a "wet" or oil-immersed application, oil molecules are trapped between the steel mating plate and the friction material. The surface roughness of the steel mating plate and the texture of the friction material combine on shear of the oil to deliver a co-efficient of friction of up to 0.15. However, these discs are high-friction. This means that the engagement and disengagement of the clutch won't always be very smooth.

Table 1: Comparison of materials based on its Mechanical property

Sr. No.	Material	Specific Strength (kN-m/kg)	Yield Strength (Mpa)	Elastic Modulus (Gpa)	Friction coefficient	Density [kg/m³]
1	Steel	46	420	210	0.42	7861
2	Stainless Steel	65	505	195	0.57	7610
3	Ceramics	6.7	457	33	0.4	3500
4	Kevlar 49	23.8	370	72	0.5	1470
5	Aluminum alloy 6061	4.5	275	69.7	0.23	2700
6	Gray Cast iron	19.1	720	24.1	0.28	7200

3. Calculations


OAJI .net
Open Academic Journals Index
Founded 2013
Search by Journal Title
Advanced search
Home
About Us
OAJI Library
Journals List
Statistics
Our Journals
TOP 50 Most Downloaded Articles
For Publishers
Apply for Evaluation / Free Service
Journal Search
OAJI Logo
Contact Us
Recently Added Issues
Asian Pacific Journal of Tropical Biomedicine
Synthesis
Auster (La Plata)
Home
What you need to know about OAJI
OAJI now: 3 300 journals, 200 000 articles, 360 000 authors
WELCOME TO
OPEN ACADEMIC JOURNALS INDEX
This work is licensed under CC BY-NC-SA
BY-NC-SA

MOBILITY & VEHICLE MECHANICS

DOI:10.24874/mvm.2020.46.02.02
UDC: 629.021

DESIGN AND ANALYSIS OF SINGLE PLATE CLUTCH USING ANSYS

Kedar Kishor Patil[1], Vinit Randiv[2], Sahil Mulla[3], Rajkumar Parit[4], Sagar Mane[5], Sunil Kadam[6]

Received in June 2020 Accepted in August 2020

RESEARCH ARTICLE

ABSTRACT: This paper addresses modelling and analysis of single plate clutch which is used in Tata Sumo vehicle. Clutch is the most significant component located between engine and gear box in automobiles. The static and dynamic analysis were developed for a clutch plate by using finite element analysis (FEA). The 3D solid model was done using CATIA V5R16 version and imported to ANSYS work bench 19.0 for structural, thermal and modal analysis. The mathematical modelling was also done using six different materials (i.e. Steel, Stainless Steel, Ceramics, Kevlar, Aluminium alloy and Gray Cast iron); then, by observing the results, comparison was carryout for materials to validate better lining material for single plate clutches using ANSYS workbench 19.0 and finally conclusion was made.

KEY WORDS: Modeling single plate clutch using CATIA, Analysis of single plate clutch using ANSYS, Clutch materials, Tata Sumo

[1] *Kedar Kishor Patil, Bharati Vidyapeeth's College of Engineering Kolhapur, Maharashtra, India, kedarkishorpatil@gmail.com, (*corresponding author)*
[2] *Vinit Randiv, Bharati Vidyapeeth's College of Engineering Kolhapur, Maharashtra, India*
[3] *Sahil Mulla, Bharati Vidyapeeth's College of Engineering Kolhapur, Maharashtra, India*
[4] *Rajkumar Parit, Bharati Vidyapeeth's College of Engineering Kolhapur, Maharashtra, India*
[5] *Sagar Mane, Bharati Vidyapeeth's College of Engineering Kolhapur, Maharashtra, India*
[6] *Sunil Kadam, Bharati Vidyapeeth's College of Engineering Kolhapur, Maharashtra, India*


ISSN: 2005-4238
International Journal of
Advanced Science and Technology
IJAST
Science & Engineering
Research Support soCiety

Home / Archives / Vol. 29 No. 3s (2020): Vol 29 No 3s (2020) (Special Issue) / Articles

HEALTH CARE SYSTEM TO BUILT SECURE PAITIENT RECORD BY USING BLOCKCHAIN AND ARTIFICIAL INTELLEGENCE

Ahmed Mohammed Ali, Vijay Ghorpade

PDF

Abstract

Data is the new fuel. In almost every sector data is maintained for future sector or domain investigation. This data is used for later information gathering, it can be a confidential data, and it is a system responsibility that data should be reliable and secure. knowledge and data needs to be transferred among various devices, this data transfer is a need to generation. There are many challenges in storing and retrieving this data in secure manner, also data should be available for each user according to their role. A system which is centralized is more prone to system halt. To protect this scenario and other potential hacks, block chain can be used. Blockchain uses consensus technology in which all nodes validates the nodes and changes which protect from any changes to the existence data. In case of clinical management is consensus and proof of work can protect the data, along with that in many situation there is a need of data mining so that instead of reliving on current dataset, historical dataset can be used to gain new knowledge and to find hidden pattern, in such scenario data gets exposed to other uses, this kind of data privacy concern and solutions are also addressed in this paper. It is observed that Block chain technology in health care system is not only more secure but also has less time and cost complexity over traditional health care data management system .

How to Cite

Vijay Ghorpade, A. M. A. (2020). HEALTH CARE SYSTEM TO BUILT SECURE PAITIENT RECORD BY USING BLOCKCHAIN AND ARTIFICIAL INTELLEGENCE. *International Journal of Advanced Science and Technology*, *29*(3s), 1218 - 1226. Retrieved from http://sersc.org/journals/index.php/IJAST/article/view/6075

More Citation Formats

Issue

Vol. 29 No. 3s (2020): Vol 29 No 3s (2020) (Special Issue)

Section

Articles


http://ijai.iaescore.com | ISSN 2089-4872, e-ISSN 2252-8938
IAES International Journal of Artificial Intelligence (IJ-AI)
2.3
Scopus
Q3
SJR 2021
0.350
SNIP 2021
0.592
HOME ABOUT LOGIN REGISTER SEARCH CURRENT ARCHIVES ANNOUNCEMENTS
Home > Vol 12, No 2
IAES International Journal of Artificial Intelligence (IJ-AI)
IAES International Journal of Artificial Intelligence (IJ-AI), ISSN/e-ISSN 2089-4872/2252-8938 publishes articles in the field of artificial intelligence (AI). The scope covers all artificial intelligence (AI) and machine learning (ML) areas and their applications in the following topics: neural networks; fuzzy logic; simulated biological evolution algorithms (like genetic algorithms, ant colony optimization, etc); reasoning and evolution; intelligence applications; computer vision and speech understanding; multimedia and cognitive informatics, data mining and machine learning tools, heuristic and AI planning strategies and tools, computational theories of learning; technology and computing (like particle swarm optimization); intelligent system architectures; knowledge representation; bioinformatics; natural language processing; multiagent systems; supervised learning; unsupervised learning; deep learning; big data and AI approaches; reinforcement learning; and learning with generative adversarial networks; etc. This journal is indexed in Scopus and all published papers since 2018 issues were included in scopus.com. This journal has been included in SCImago Journal Rank (SJR) since 2020 (or since SJR 2019). The IAES International Journal of Artificial Intelligence has an SJR of 0.35, SNIP of 0.592 and CiteScore of 2.3.
Our Editors maintain transparency of research, assess manuscript for scientific value, ensure that content is free from any manifestations of discrimination, and evaluate information objectively without any conflict of interests. A submitted paper should be an original work, and should not have been presented or published previously. Submission for publication in this journal presumes that the paper is not being considered for publication elsewhere and is not under review by any other publication. All papers undergo a thorough evaluation process while following all ethical guidelines to maintain the highest publishing standards. The IJ-AI Team strictly review suitability, originality of manuscripts for publication. Publication integrity is one of the principle responsibilities we take.

Convolutional neural networks for leaf image-based plant disease classification

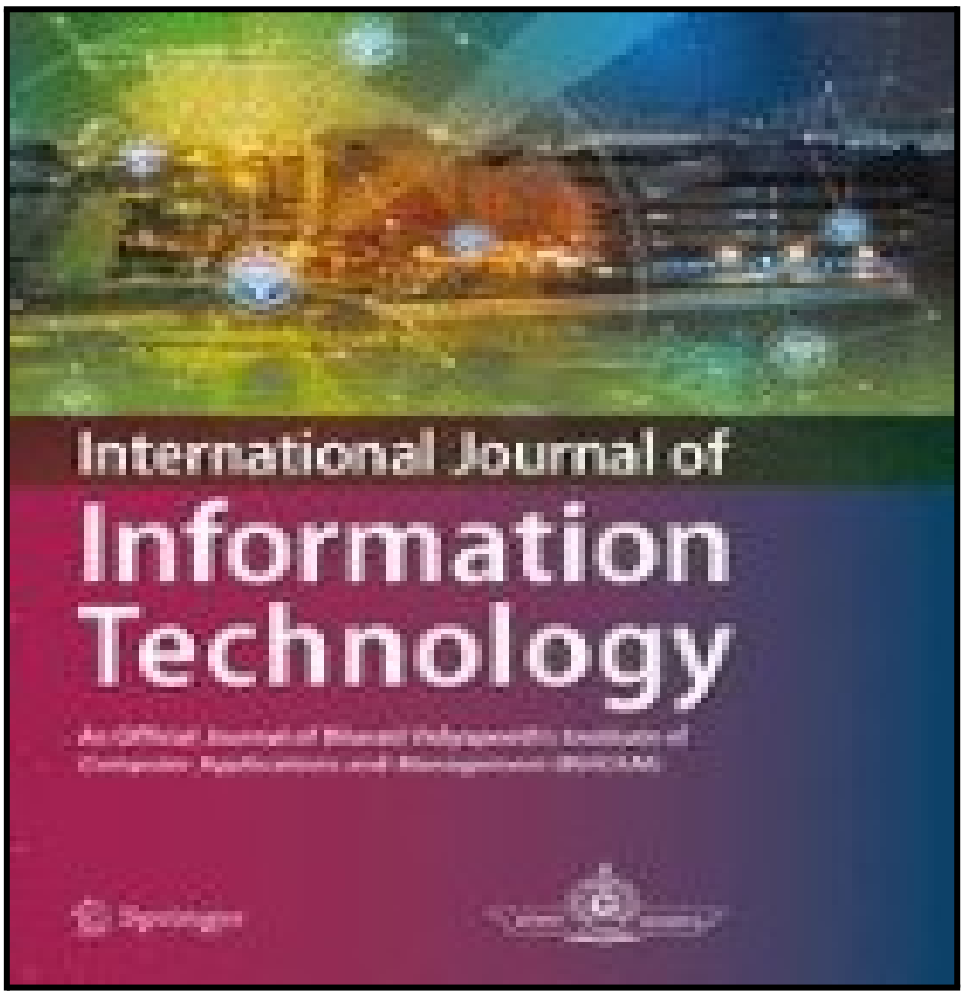
Sachin B. Jadhav, Vishwanath R. Udupi, Sanjay B. Patil

Abstract

Plant pathologists desire soft computing technology for accurate and reliable diagnosis of plant diseases. In this study, we propose an efficient soybean disease identification method based on a transfer learning approach by using a pre-trained convolutional neural network (CNN's) such as AlexNet, GoogleNet, VGG16, ResNet101, and DensNet201. The proposed convolutional neural networks were trained using 1200 plant village image dataset of diseased and healthy soybean leaves, to identify three soybean diseases out of healthy leaves. Pre-trained CNN used to enable a fast and easy system implementation in practice. We used the five-fold crossvalidation strategy to analyze the performance of networks. In this study, we used a pre-trained convolutional neural network as feature extractors and classifiers. The experimental results based on the proposed approach using pre-trained AlexNet, GoogleNet, VGG16, ResNet101, and DensNet201 networks achieve an accuracy of 95%, 96.4%, 96.4%, 92.1%, 93.6% respectively. The experimental results for the identification of soybean diseases indicated that the proposed networks model achieves the highest accuracy

Keywords

AlexNet CNN; Deep CNN; DensNet201 CNN; Disease classification; GoogleNet CNN; Machine learning; ResNet101 CNN; VGG16 CNN


International Journal of
Information
Technology

Original Research | Published: 07 February 2020

Identification of plant diseases using convolutional neural networks

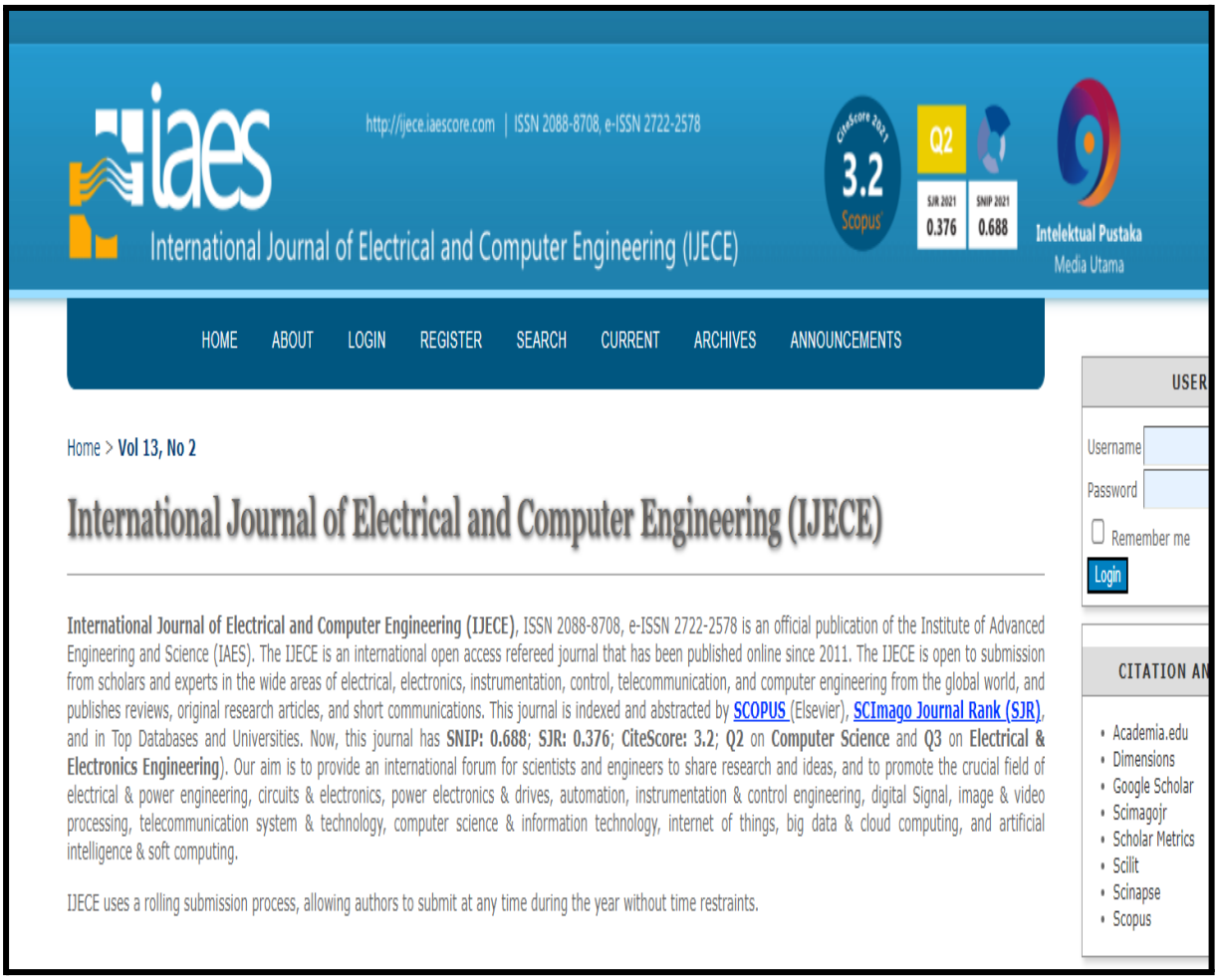
Sachin B. Jadhav, Vishwanath R. Udupi & Sanjay B. Patil

International Journal of Information Technology **13**, 2461–2470 (2021) | Cite this article

944 Accesses | **31** Citations | Metrics

Abstract

Plant pathologists desire an accurate and reliable soybean plant disease diagnosis system. In this study, we propose an efficient soybean diseases identification method based on a transfer learning approach by using pretrained AlexNet and GoogleNet convolutional neural networks (CNNs). The proposed AlexNet and GoogleNet CNNs were trained using 649 and 550 image samples of diseased and healthy soybean leaves, respectively, to identify three soybean diseases. We used the five-fold cross-validation strategy. The proposed AlexNet and GoogleNet CNN-based models achieved an accuracy of 98.75% and 96.25%, respectively. This accuracy was considerably higher than that for conventional pattern recognition techniques. The experimental results for the identification of soybean diseases indicated that the proposed model achieved highest efficiency.


http://ijece.iaescore.com | ISSN 2088-8708, e-ISSN 2722-2578
International Journal of Electrical and Computer Engineering (IJECE)
3.2
Scopus
Q2
SJR 2021
0.376
SNIP 2021
0.688
Intelektual Pustaka
Media Utama
HOME ABOUT LOGIN REGISTER SEARCH CURRENT ARCHIVES ANNOUNCEMENTS
USER
Username
Password
Remember me
Login
CITATION AN
Academia.edu
Dimensions
Google Scholar
Scimagojr
Scholar Metrics
Scilit
Scinapse
Scopus
Home > Vol 13, No 2
International Journal of Electrical and Computer Engineering (IJECE)
International Journal of Electrical and Computer Engineering (IJECE), ISSN 2088-8708, e-ISSN 2722-2578 is an official publication of the Institute of Advanced Engineering and Science (IAES). The IJECE is an international open access refereed journal that has been published online since 2011. The IJECE is open to submission from scholars and experts in the wide areas of electrical, electronics, instrumentation, control, telecommunication, and computer engineering from the global world, and publishes reviews, original research articles, and short communications. This journal is indexed and abstracted by SCOPUS (Elsevier), SCImago Journal Rank (SJR), and in Top Databases and Universities. Now, this journal has SNIP: 0.688; SJR: 0.376; CiteScore: 3.2; Q2 on Computer Science and Q3 on Electrical & Electronics Engineering). Our aim is to provide an international forum for scientists and engineers to share research and ideas, and to promote the crucial field of electrical & power engineering, circuits & electronics, power electronics & drives, automation, instrumentation & control engineering, digital Signal, image & video processing, telecommunication system & technology, computer science & information technology, internet of things, big data & cloud computing, and artificial intelligence & soft computing.
IJECE uses a rolling submission process, allowing authors to submit at any time during the year without time restraints.

Soybean leaf disease detection and severity measurement using multiclass SVM and KNN classifier

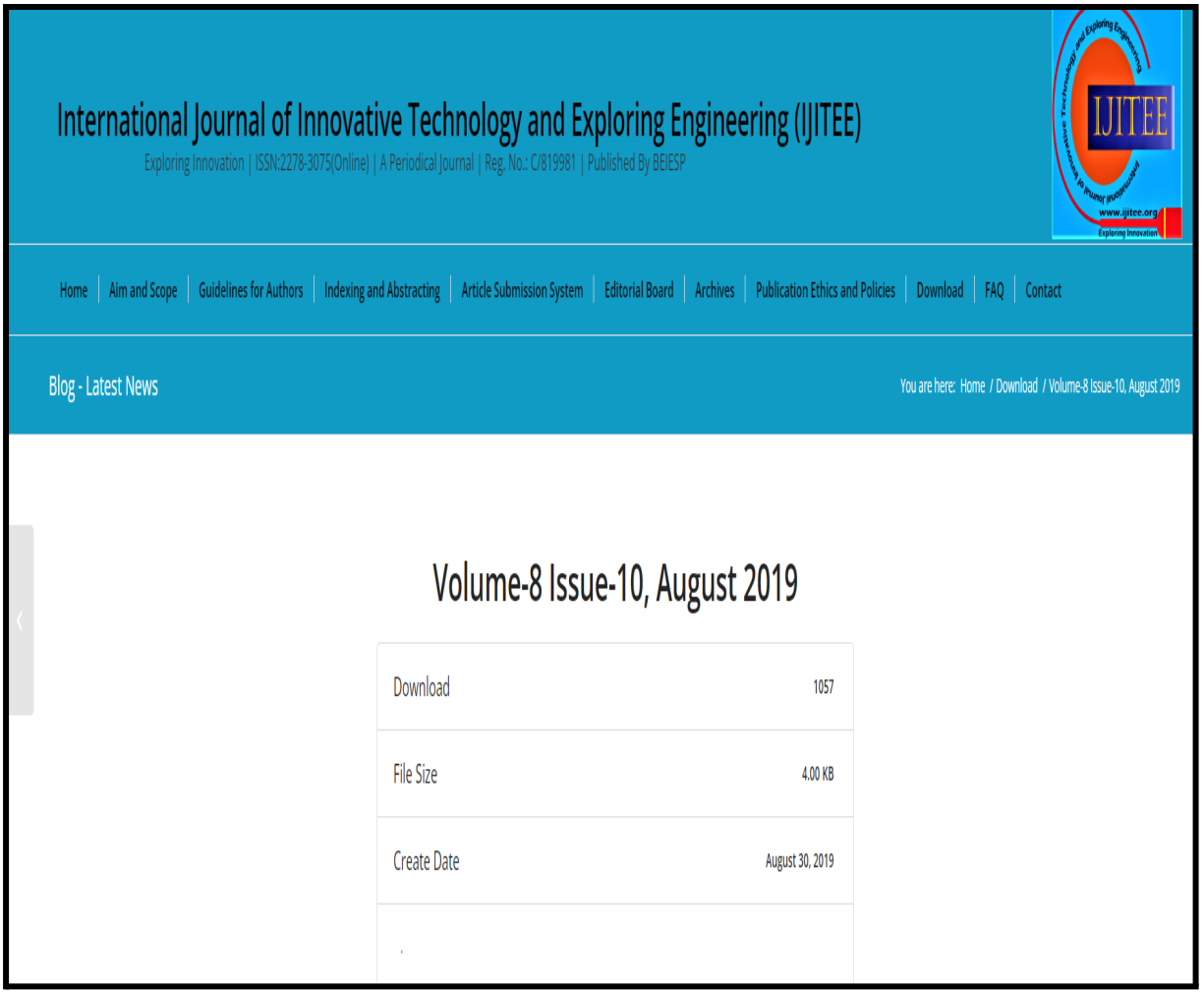
Sachin B. Jadhav, Vishwanath R. Udup, Sanjay B. Patil

Abstract

Soybean fungal diseases such as Blight, Frogeye leaf spot and Brown Spot are a significant threat to soybean plant due to the severe symptoms and lack of treatments. Traditional diagnosis of the thease diseases relies on disease symptom identification based on neaked eye observation by pathalogiest, which can lead to a high rate of false-recognition. This work present a novel system, utilizing multiclass support vector machine and KNN classifiers, for detection and classification of soybean diseases using color images of diseased leaf samples. Images of healthy and diseased leaves affected by Blight, Frogeye leaf spot and Brown Spot were acquired by a digital camera. The acquired images are preprocessed using image enhancement techniques. The background of each image was removed by a thresholding method and the Region of Interest (ROI) is obtained. Color-based segmentation technique based on K-means clustering is applied to the region of interest for partitioning the diseased region. The severity of disease is estimated by quantifying a number of pixels in the diseased region and in total leaf region. Different color features of segmented diseased leaf region were extracted using RGB color space and texture features were extracted using Gray Level Co-occurrence Matrix (GLCM) to compose a feature database. Finally, the support vector machine (SVM) and K-Nearest Negbiour (KNN) classifiers are used for classifying the disease. This proposed classifers system is capable to classify the types of blight, brown spot, frogeye leaf spot diseases and Healthy samples with an accuracy of 87.3% and 83.6 % are achieved.

Keywords

image processing


International Journal of Innovative Technology and Exploring Engineering (IJITEE)
Exploring Innovation | ISSN:2278-3075(Online) | A Periodical Journal | Reg. No.: C/819981 | Published By BEIESP
IJITEE
www.ijitee.org
Exploring Innovation
Home
Aim and Scope
Guidelines for Authors
Indexing and Abstracting
Article Submission System
Editorial Board
Archives
Publication Ethics and Policies
Download
FAQ
Contact
Blog - Latest News
You are here: Home / Download / Volume-8 Issue-10, August 2019
Volume-8 Issue-10, August 2019
Download 1057
File Size 4.00 KB
Create Date August 30, 2019

International Journal of Innovative Technology and Exploring Engineering (IJITEE)
ISSN: 2278-3075, Volume-8 Issue-10, August 2019

A Fuzzy Lattice System to Trust Management in Mobile Grid

Grantej Vinod Otari, Vijay Ram Ghorpade, Sachin Harakhchand Dhanani

Abstract : ***Mobile Grid is a crossbreed technology formed by amalgamation of the two prominent technologies namely mobile technology and grid technology that enable sharing and collaboration of mobile resources cooperatively, transparently, efficiently, reliably and securely. Mobile Grid considers the mobility issues and overcomes the constraints and deficiencies in both the technologies. However, this heterogeneous, dynamic and open mobile grid network is more prone to malicious and selfish nodes inside and outside the network. Hence, a vigorous security mechanism is needed that considers different security threats and pro-vide different levels of security services. Here, we propose one such preventive security service based on Trust Management. The proposed trust management service uses a novel fuzzy lattice approach for trust estimation of the nodes in the network. A node with high trust value is allowed to participate in the network. A malicious node having low trust value is prevented from performing the task. A fuzzy lattice approach can compute incrementally the same intervals in the training data independent of the order of presentation within a short period. Experimental analysis of the fuzzy lattice approach shows that the proposed approach outperforms most of the existing approaches based on fuzzy logic.***

Keywords: Mobile Gird, Trust Management, Fuzzy Lattice

I. INTRODUCTION

In order to meet the fluctuating and on-demand resources requirements one of the most promising technology has been in the forefront in the form of Grid Computing. Grid computing allows to share and allocate heterogeneous and distributed resources dynamically. This results in an open and dynamic environment providing computational and storage resources in the form of grid services. The grid service providers need to ensure a secure grid environment to the users of the remote resources for executing their tasks remotely and storing the data on the remote storage resources securely.

With the exponential growth of wireless electronic devices such as smart phones, PDA, laptops etc. along with the high speed internet many recent advents have been done by the researchers and industry to enrich the new comping paradigm of mobile computing. Mobile computing allows collaboration of mobile devices having limited resources such as battery, processor, input/output interfaces and instability in data transfer to solve a common problem. Providing security of such limited and precious resources in mobile devices which are being shared in a highly dynamic, open and heterogeneous environment is a challenging problem.

The Mobile Grid [1] is a crossbreed technology incorporating grid of mobile devices thus addressing mobility issues and providing mobility to the resources and users in a continuous, transparent, secure and effective manner. This allows us to form a self-organized grid system consisting of an underlying ad-hoc network of mobile devices interconnected by wireless network and constructing random and dynamic network topology. Thus the security infrastructure in the mobile grid system should deal with various aspects of security issues both in grid computing and mobile computing.

In the mobile grid network, every node plays the dual role as client and server. Thus mobile grid resources are exposed to distributed and open dynamic environment. However, such mobile grid networks are extremely prone to malicious participants dispersing false contents causing unrecoverable security threat to the system. A viable solution is to develop a trust model which provides a mechanism to establish a trusted relationship between the participating resources and allowing them to share the task and data les securely collaboratively. In the trust model, every peer assesses every other peer in the network after each trans-action. Then a peer selects the trustworthy peer for further transaction based upon its past transaction experiences.

Evaluating trustworthiness of a peer in the mobile grid is a complex problem as trust is a linguistically fuzzy concept. To solve this complex problem of trust calculation fuzzy logic is a good alternative solution. Also it has been observed that all the peers in the network are not always cooperative and may send false feedback to disrupt the reputation of the peers and contribute to the errors in global trust calculation. Thus a robust trust estimation model is needed that detects malicious peers and check the credibility of the recommendations received from such peers. In addition the trust model should also deal with the estimation of trust of the newly joined node in the network.

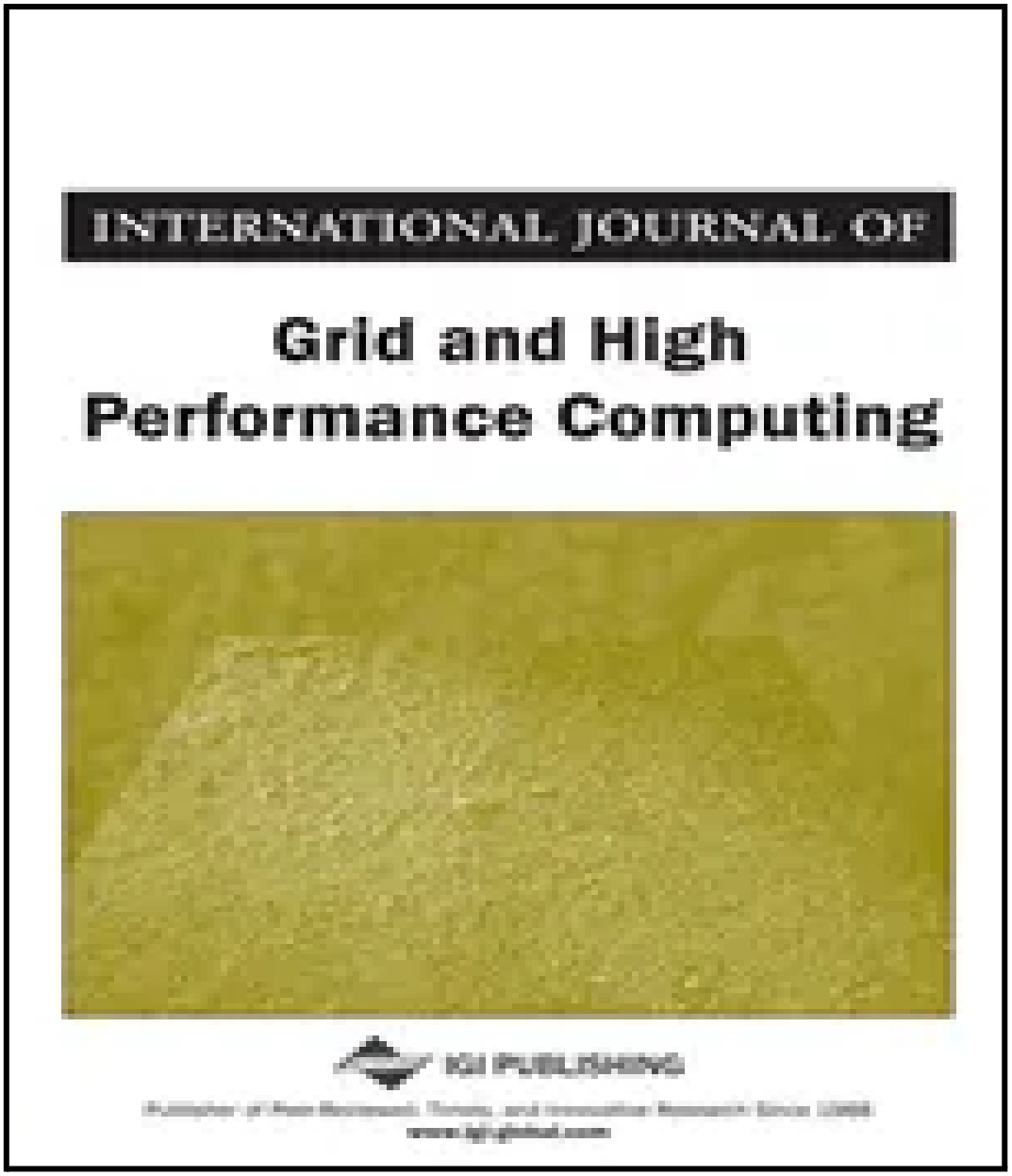
In this paper, we have designed a novel trust management system based on a fuzzy lattice approach. The proposed model uses multiple attributes of the mobile node to evaluate the direct trust value. These input attributes indicate the capability of the node to perform the specific task based on the currently available resources and its previous performance. The trust model then estimates indirect trust by collecting the recommendations from the neighbors in the network and considering the credibility of the recommenders. Finally, the obtained direct trust value and indirect trust value is aggregated to compute the global trust of a node.

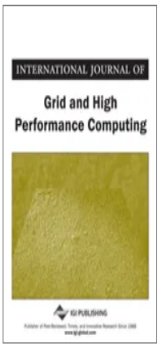
II. RELATED WORK

There exists a vast and diverse literature for development of trust model. Numerous possible approaches and measures are used for trust calculation. Some approaches use continuous values to measure the trust, while some methods use discrete values. Some models are based on probabilistic approach whereas some others use threshold based approach.

Revised Manuscript Received on August 05, 2019.

Grantej Vinod Otari, Department of Computer Science & Engineering Shivaji University Kolhapur, India
Dr. Vijay Ram Ghorpade, Department of Computer Science & Engineering Bharati Vidyapeeth's College of Engineering Kolhapur, India
Dr. Sachin Harakhchand Dhanani, Department of Mathematics K.I.T.'s College of Engineering, Kolhapur, India


INTERNATIONAL JOURNAL OF
Grid and High Performance Computing
IGI PUBLISHING



Application Checkpointing Technique for Self-Healing From Failures in Mobile Grid Computing

Amit Sadanand Savyanavar (Dr. D.Y. Patil College of Engineering and Technology, Shivaji University, Kolhapur, India) and Vijay Ram Ghorpade (Bharati Vidyapeeth's College of Engineering, Kolhapur, India)

Source Title: International Journal of Grid and High Performance Computing (IJGHPC) 11(2)
Copyright: © 2019 | Volume: 11 | Issue: 2 | Article: 3 | Pages: 13
ISSN: 1938-0259 | EISSN: 1938-0267 | EISBN13: 9781522564911 | DOI: 10.4018/IJGHPC.2019040103

Abstract

A mobile grid (MG) consists of interconnected mobile devices which are used for high performance computing. Fault tolerance is an important property of mobile computational grid systems for achieving superior arrangement reliability and faster recovery from failures. Since the failure of the resources affects task execution fatally, fault tolerance service is essential to achieve QoS requirement in MG. The faults which occur in MG are link failure, node failure, task failure, limited bandwidth etc. Detecting these failures can help in better utilisation of the resources and timely notification to the user in a MG environment. These failures result in loss of computational results and data. Many algorithms or techniques were proposed for failure handling in traditional grids. The authors propose a checkpointing based failure handling technique which will improve arrangement reliability and failure recovery time for the MG network. Experimentation was conducted by creating a grid of ubiquitously available Android-based mobile phones.

1. Introduction

Recent advances in the computing power of mobile devices has made it feasible to generate a true mobile grid (MG) (Savyanavar et al., 2013) consisting of only mobile devices for high performance computations. Collaborative computing using MG involves a number of mobile devices like laptop, cell phones, PDA, wearable computing devices and mobile robotic systems. MG provides a framework for numerous real-life applications in the areas of healthcare, disaster management and military applications. Addressing failure of nodes is more critical in MG than conventional wired grids due to host mobility, dynamicity, less reliable wireless links and frequent disconnections in mobile systems. Mobility (Savyanavar et al., 2015) of the nodes aggravates the reliability issue in MG. MG follows peer-to-peer computing architecture (Tung et al., 2012). Due to peer volatility, peer failure is a critical issue in peer-to-peer computing. In such networks, a peer may leave unpredictably. This peer may be executing a subtask, which would fail abruptly and hence affect the overall execution of the application. An efficient fault tolerance mechanism is pivotal for successful execution of the application. Replication and rollback (Treaster et al., 2005) are two failure handling


submitjasc@gmail.com
ISSN NO: 1076-5131
IMPACT FACTOR - 5.8
+91 - 7981064362
JASC
JOURNAL OF APPLIED SCIENCE AND COMPUTATIONS
A Peer Reviewed/ Referred Journal
UGC APPROVED JOURNAL
SUBMIT ONLINE
An ISO 7021 : 2008 Certified Journal
SCOPUS SUGGESTED JOURNAL ID: 50E0TF02C8886FF83
NEW ITEM
ABOUT US
FOR AUTHORS
ARCHIVES
EDITORIAL BOARD
PROPOSAL
CONFERENCES
CONTACTS
UGC Approved List of Journals
You searched for Journal of Applied Science and Computations
Total Journals : 1
Show 25 entries Search:
View
Sl.No.
Journal No
Title
Publisher
ISSN
E-ISSN
View
1
41238
Journal of Applied Science and Computations
Institute of Applied Science & Computations
10765131
Showing 1 to 1 of 1 entries
Previous
1
Next
CALL FOR PAPERS
Important Dates
Submission Last Date: Throughout the Year
Acceptance Status: In 24 Hours
Publication Period: Within 24hrs after receiving the publication fee
Submit Article At:
submitjasc@gmail.com
ISO 7021 : 2008
Impact Factor
JASC Indexed at International Universities

JASC: Journal of Applied Science and Computations ISSN NO: 1076-5131

Customer Preference Based Web Service Discovery Approach

Rahul P. Mirajkar [#1], Nikhil D. Karande [*2], Surendra Yadav [#3]
[#1] Research Scholar, School of Engineering and Technology, Career Point University, Kota
[#2] Associate Professor, Department of Computer Science & Engineering, SVERI, Solapur University, Solapur
[#3] Professor, Department of Computer Science & Engineering, Career Point University, Kota
[1]rahulmirajkar982@gmail.com
[2]nikhilkarande16@gmail.com
[3]syadav66@gmail.com@gmail.com

Abstract— **With a growing number of web services, discovering services that can match with a user's query becomes a challenging task. It's very tedious for a service consumer to select the appropriate one according to her/his needs. The increasing use of the Web for everyday tasks is making Web services an essential part of the Internet customer's daily life. A web service is a service offered by an electronic device to another electronic device, communicating with each other via the World Wide Web. Since various services are available, it becomes difficult to find the most appropriate service for an exact application. Faced with the increasing numbers of Web services and service users, researchers in the services computing field have attempted to address a challenging issue, i.e. how to quickly find the suitable ones according to user queries. Many previous studies have been reported towards this direction. This paper presents implementation details of customer preference based adequate web service discovery approach.**

Keywords- Web Mining, Web Service Discovery, Knowledge Engineering

I. Introduction

Web service discovery is retrieving required web services that can get in two types- first is functional requirements and second is nonfunctional requirements of users. Web service search engine have also some limitations or difficulties in applying these approaches in practice so there is need for new web service discovery approach. Finding a web services similar to users' functional requirements is very important. Then the web service is published in a repository but number of services registered in large scale so repository formed in large size.

Similar Word Mining (SWM) which is used to get higher similarity between two web services. SWM technique gives web services based on topic models. This web services share similar probabilities over multiple topics. The size of SWM can be adjusted flexibly. Topic model estimate topic distribution of given user query. Then queries are ranked for SWM related topics. The web services are relevant which are ranked web services using SWM. Similar Word Mining gives web services related to topic. User search for service query then follow all process steps each time to get relevant web service. User History will provide web services which are already searched by user. User history will improve the response time of web service discovery.

So we need to develop a web service search engine by implementing constraint based clustering using must-link and cannot link approach for extracting relevant web services & also make use of historical user preferences for reducing the search time. Web services are implemented using standards such as UDDI, SOAP, WSDL, etc. Web services are developed and published by different vendors using UDDI. It is the mechanism to register and discover web services. The details of a web service are provided in the WSDL document.

II. Literature Survey

Quickly finding the suitable web service according to customer/user queries is very challenging Existing service discovery approaches rely on either UDDI based or Web service search engines to locate matching services But Registries like UDDI are no longer available on internet. Oppositely, the web service search engine or web service directories increase rapidly but web service search engines that rely on keyword matching always suffer from a lack of sufficient keywords in Web service descriptions or from using synonyms of predefined keywords.

WSDL (Web Service Description Language) used to perform service matching and discovery. Limitation related to WSDL is keyword based service matching which gives low accuracy.


International Journal of Scientific Research in Computer Science, Engineering and Information Technology
Peer reviewed and Refereed International Scientific Research Journal
ISSN : 2456-3307 UGC Journal No : 64718 | Impact Factor = 7.254
Search...
HOME
ABOUT US
FOR AUTHORS
BROWSE ARCHIVE
EDITORIAL BOARD
CONTACT US
Now Bigger and Better
International, Peer Reviewed Journal
The prime mission is to make continuous efforts in transforming the scientific information from researchers around the world, into easily accessible data by publishing on our website.

International Journal of Scientific Research in Computer Science, Engineering and Information Technology
© 2018 IJSRCSEIT | Volume 3 | Issue 5 | ISSN : 2456-3307

Designing a Data Structure Utility List and High Utility Sequential Pattern for One phase in Data Mining

Kaushik Dattatraya Kulkarni[1], Rahul P. Mirajkar[2]

[1] Student, ME (CSE), Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India
[2] Asstt Professor, Bharati Vidyapeeth's College of Engineering, Kolhapur. Maharashtra, India

ABSTRACT

High utility item set mining finds item set from the database which have their utility no less than minimum threshold, the most significant task in data mining is the process to discovering the different type of pattern algorithm that generate the mining pattern. Sequence of database rather than strings and it can capture the set of sequential pattern. Data mining consist extracting information from data stored in databases to understand the data. Pattern mining consists of discovering interesting, useful, and unexpected pattern in databases.

Keywords : Data mining, Database, sequential pattern mining, High utility, item set

I. INTRODUCTION

In sequential pattern mining that pattern can maintain their sequential. Item set may generating in sequential manner without any duplication. Data mining consist extracting information from data stored in databases to understand the data. Pattern mining consists of discovering interesting, useful, and unexpected pattern in databases. Sequential pattern mining is a data mining is a data mining task specialized for analyzing sequential data to discover sequential pattern. Efficient Mining of High Utility Item set from large data set these algorithm search large transactional weighted utilization item in transaction database. It is used to mine the complete set of high utility item set. Implied a structure named High Utility of Pattern tree for maintaining essential information about utility mining.

Each node in enumeration tree will be contain generating different pattern that will be useful for utility of sequential pattern mining to maintain this pattern in linear data structure will be developed. It will be contain information about each item relevant of pattern. . High utility pattern that can be finding the pattern from database that have a utility value. The utility of pattern defines defines the its importance and makes mined pattern.

1.1 MOTIVATION:

Efficient Mining of High Utility Item set from large data set these algorithm search large transactional weighted utilization item in transaction database. It is used to mine the complete set of high utility item set. Implied a structure named High Utility of Pattern tree for maintaining essential information about utility mining. It avoids scanning of multiple times generating pattern during mining process. Identifying better estimate of the utility value of pattern and systematic search of space for pattern using the estimate. Data structure which helps into computation of better estimate will improve the performance of mining algorithms by effectively search space.

II. OBJECTIVES

- Generating the High Utility Sequential Pattern in one phase

International Journal of Scientific Research in Computer Science, Engineering and Information Technology
© 2018 IJSRCSEIT | Volume 3 | Issue 6 | ISSN : 2456-3307

Auto Determination of K in KMEANS with MAP-REDUCE for Numerical and Text Datasets

Ms. K. P. Shiudkar[1], Prof. S. B. Takmare[2], Prof. R. P.Mirajkar[3]

[1]ME CSE Student, Bharati Vidyapeeth College of Engineering, Kolhapur, Maharashtra, India
[2]Assistant Professor, Department of CSE, A P Shah Institute of Technology Thane, Maharashtra, India
[3]Assistant Professor, Department of CSE, Bharati Vidyapeeth college of Engineering Kolhapur, Maharashtra, India

ABSTRACT

Data mining is the process of automatically discovering useful information in large datasets. Clustering analysis is a very important branch in data mining. Cluster analysis based on the data objects and their relationships and grouping of data objects. Clustering very large datasets is a challenging problem for data mining and processing. Map Reduce is considered as a powerful programming framework, which significantly reduces executing time by dividing a job into several tasks, and executes them in a distributed environment. K-Means, which is one of the most used clustering methods, and K-Means based on Map Reduce is considered as an advanced solution for very large dataset clustering. However, the executing time is still an obstacle due to the increasing number of iterations when there is an increase of dataset size and number of clusters. The traditional k-means is computationally expensive, sensitive to outliers and has an unstable result hence its inefficiency when dealing with very large datasets. Solving these issues is the subject of much recent research work. In this paper, we propose an Auto determination of K in KMEANS with MAP-REDUCE for numerical and text datasets in order to adapt it to handle large-scale datasets by reducing its execution time. In addition, we proposed algorithms to find the initial centroids automatically and cluster are formed on both numerical and text both datasets.

Keywords : Initial Centroids, Clustering, Data mining, Data sets, K-means clustering, Map-Reduce.

I. INTRODUCTION

Big Data is evolving term that describes any voluminous amount of structured, semi-structured and unstructured data. Big data challenges include capturing data, data storage, data analysis, search, sharing, transfer, visualization, querying, updating, information privacy and data source. Big data represents the information assets characterized "5Vs", volume (size of data set), variety (range of data type and source), velocity (speed of data in and out), value (how useful the data is), and veracity (quality of data) to require specific technology and analytical methods for its transformation into value. It creates challenges in their collection, processing, management and analysis. Big data to the use of predictive analytics, user behaviour analytics, or certain other advanced data analytics methods that extract value from data, and seldom to a particular size of data set. Big data analytics is the process of examining large and varied data sets to uncover hidden patterns, unknown correlations, market trends, customer preferences and other useful information that can help organizations make more-informed business decisions. As new data

CSEIT1183627| Received : 01 July 2018 | Accepted : 12 July 2018 | July-August-2018 [3 (6) : 123-127]

IJCSE International Journal of Computer Sciences and Engineering Open Access
Review Paper Vol.-6, Issue-9, Sept. 2018 E-ISSN: 2347-2693

A Study on Different Web Service Discovery Approaches

Rahul P. Mirajkar[1*], Nikhil D. Karande[2], Surendra Yadav [3]

[1]School of Engineering and Technology, Career Point University, Kota, Rajasthan, India
[2]Department of CSE, Sanjay Ghodawat University, Kolhapur, Maharashtra, India
[3]Department of Computer Science & Engineering, Career Point University, Kota, Rajasthan, India

Available online at: www.ijcseonline.org

Accepted: 22/Sept/2018, Published: 30/Sept/2018

Abstract— A web service is a software system designed to support interoperable machine-to-machine interaction over a network. In today's date, web services are becoming widespread to utilize the web as a business opportunity for offering their own services and using existing services from others. A web service is a service offered by an electronic device to another electronic device, communicating with each other via the World Wide Web. A web service registry UDDI (Universal Description, Discovery, and Integration) provides interoperable, standards based approach for methodically documenting and publishing web services. Since various services are available, it becomes difficult to find the most appropriate service for an exact application. Faced with the increasing numbers of Web services and service users, researchers in the services computing field have attempted to address a challenging issue, i.e. how to quickly find the suitable ones according to user queries. Many previous studies have been reported towards this direction. This paper presents a study on different web service discovery approaches.

Keywords— Web Mining, Web Service Discovery

I. INTRODUCTION

Web services are defined as self contained and self describing applications that can be published, located and invoked through the web. These are XML based components that can be executed by any application on the World Wide Web irrespective of platform [1]. Web services are developed and published by different vendors using UDDI. It is the mechanism to register and discover web services. The details of a web service are provided in the WSDL (Web Service Definition Language) document. Web services are accessed from the internet through SOAP (Simple Object Access Protocol) that allows programs that run on different operating system to communicate using HTTP and XML [2].Traditionally, web services are searched using user supplied keywords, which is not an efficient way since a huge number of web services may match a keyword.

In this paper, first we have presented how exactly the web service discovery process is performed. Then we have mentioned advantages & disadvantages of different web service discovery approaches by various authors.

Web Service Discovery Process:

Service discovery process locates a web service provider and web service descriptions are retrieved. The process queries the service registry with the needs of the service requestor. The query contains parameters such as desired service, price, number of results, etc. Once the discovery of web service is over, the client machine should know the location, capabilities and interfacing method of a web service.

The service discovery is of two types, static and dynamic. In static, the web service details are bound at design time and query results are examined by human designers. In dynamic method, web service details are unbound and can be determined during run time. The query results are examined by applications that infer most likely web services.

Generally web service discovery is the three step process with advertising web services by developers is done in the first step. Advertising is done in public repositories by registering their web services using web service description file written in WSDL. Sending of request by the user is done in second step. The request contains details in a format that has been predefined by a web service repository.

Web service matcher matches user requests with available web services and a candidate set of web services are retrieved5. Selection and invocation of web service is done in the final step. Selection of the best web service is dependent on the maturity of web service matching algorithm and actual

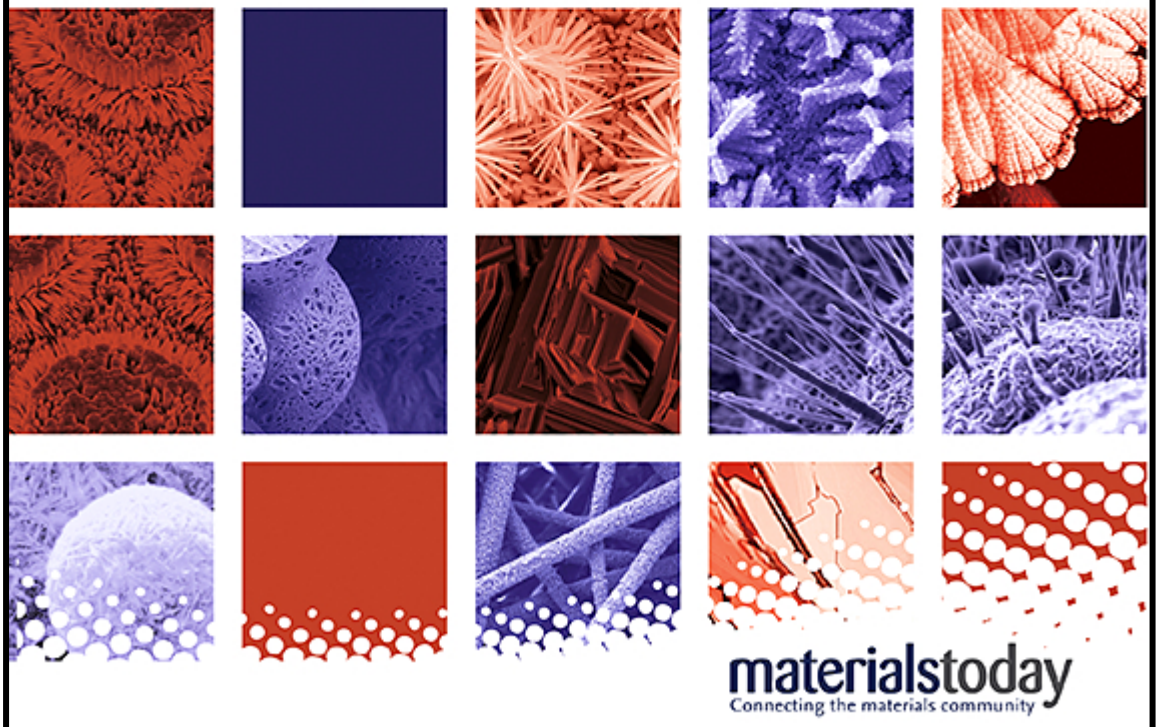
Volume 73 • Issue P4 • 2023

ISSN 2214-7853

materialstoday: PROCEEDINGS

Nanomaterials for Energy Conversion and Storage Application-2022 (NECSA 2022)

Guest Editors: D.G. Kuberkar, Sagar Mitra, Saurabh Soni and Divesh N. Srivastava



materialstoday
Connecting the materials community

Parametric Optimization Of Minimum Quantity Lubrication In Turning Of AISI 4340 Using Nano Fluids

P.B. Patole [a], V.V. Kulkarni [b]

Show more

https://doi.org/10.1016/j.matpr.2018.02.221

Abstract

Modern machining industries demand for improved surface roughness from micro level to nano level along with increased tool life and reduced cutting temperature and force during machining. Therefore, the aim of this research work is focused on optimization of Minimum Quantity Lubrication (MQL) parameters using nano fluids in turning of AISI 4340. A study of effect of MQL parameters on the surface roughness of AISI 4340 was carried out using nano fluid such as Multi Walled Carbon Nano Tube (MWCNT). In the experiment conducted, four values of pressure, four values of flow rate and two types of nano fluids were used. The chemical composition of the work material was tested using arc spectrometer and verified to be of grade AISI 4340. The test pieces were turned on a CNC lathe machine under MQL mode using nano fluid with different levels of MQL parameters by using Taguchi L16 orthogonal array. The surface roughness of the machined surface was measured using surface measurement tester. Taguchi methodology was used to optimize MQL parameters. The results were analyzed using Analysis of Variance (ANOVA). From result analysis, it was shown that, cutting fluid (Nano fluid) played a major role in producing lower surface roughness followed by flow rate whereas pressure has least significance in producing lower surface roughness under MQL using nano coolant. It was observed that ethylene glycol with nano fluid (MQL1) showed lowest surface roughness as compared to water with nano fluid (MQL2). The optimum condition under MQL mode with nano fluid obtained as pressure (5 bar), flow rate (140 ml/hr.) and cutting fluid type 1. From result analysis it is also observed that, ethylene glycol as a base fluid with nano fluid is a most significant factor affecting surface roughness. The percentage error between experimental and predicted surface

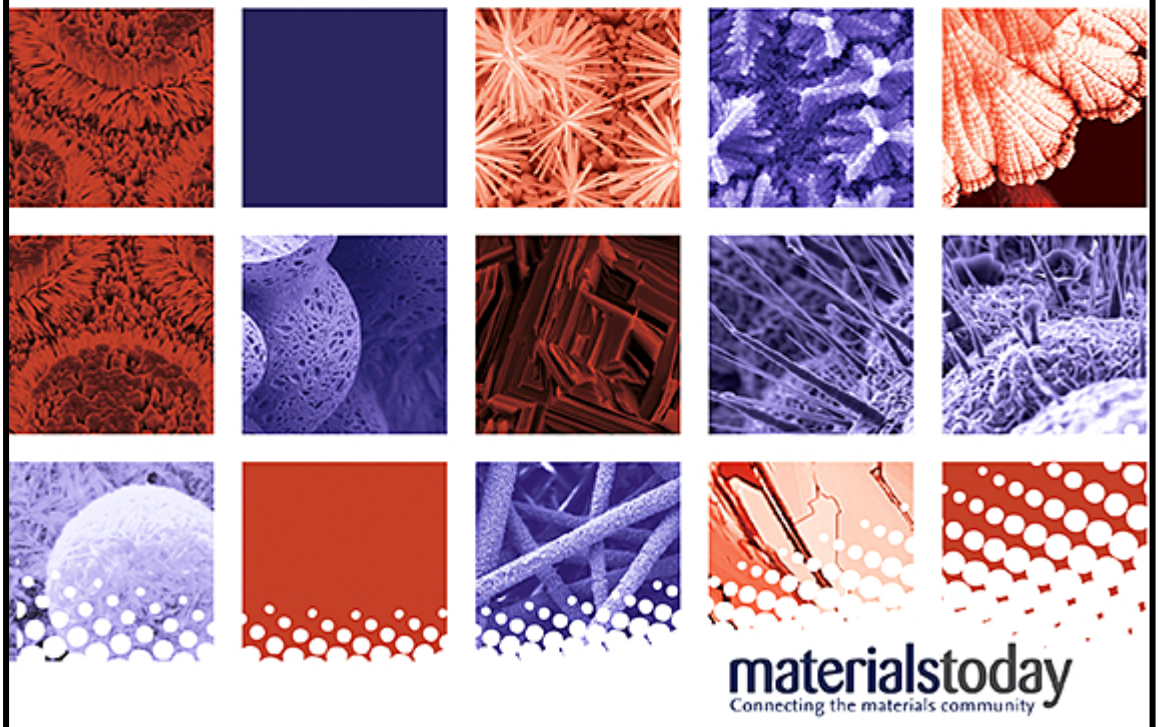
Volume 73 • Issue P4 • 2023

ISSN 2214-7853

materialstoday: PROCEEDINGS

Nanomaterials for Energy Conversion and Storage Application-2022 (NECSA 2022)

Guest Editors: D.G. Kuberkar, Sagar Mitra, Saurabh Soni and Divesh N. Srivastava



materialstoday
Connecting the materials community

Optimization of Process Parameters based on Surface Roughness and Cutting Force in MQL Turning of AISI 4340 using Nano Fluid

P.B. Patole [a], V.V. Kulkarni [b]

Show more

+ Add to Mendeley Share Cite

https://doi.org/10.1016/j.matpr.2017.11.060 Get rights and content

Abstract

The aim of this research work is focused on optimization of process parameters under Minimum Quantity Lubrication (MQL) using nano fluid in turning of AISI 4340. A study of effect of process parameters in turning of AISI 4340 under MQL condition with nano fluid (Multiwalled Carbon Nano Tube) on the cutting force generated and machined surface roughness is carried out. In the experiment conducted, five values of feed rate, three values of depth of cut, two values of cutting speed and tool nose radius respectively, are used. The test pieces were turned on a CNC lathe machine under MQL mode using nano fluid with different levels of process parameters by using full factorial design of experiment orthogonal array. The surface roughness of the machined surface was measured using surface measurement tester. Taguchi methodology was used to optimize process parameters. The results were analyzed by using Analysis of variance. From result analysis, it was found that, feed rate played a major role in producing lower surface roughness followed by depth of cut whereas cutting speed has least significance in producing lower surface roughness under MQL using nano coolant. It was observed that MQL with nano fluid (MWCNT) showed lowest surface roughness as compared to conventional flood system. Thus, with proper selection of process parameters under MQL mode with nano coolant, it is possible to achieve good surface roughness, reduce tool wear while maintaining the cutting forces and temperatures at reasonable levels.

e–ISSN: 2395–0056 p–ISSN: 2395–0072

International Research Journal of Engineering and Technology

(An ISO 9001-2008 Certified Journal)

Fast Track Publications

Home | About Us | Current Issue | Past Issue | Archives | For Authors | Contact Us | Pay Online | FAQ

Call for Paper : Dec 2022

Submission Last Date: 31-Dec

Review Status : In 1 week

Online Publication : In 3 Days

- Initial Online submission
- Author Guidelines
- Processing Charges
- Final Online Submission
- ImpactFactor
- Indexing
- Citations
- FAQ
- Editorial Board
- Topics Covered
- Copyright Claims

Current News & Updates

progress...

Browse Papers

le evaluation & publication is in process for the November Issue ***** This website will be updat

International Research Journal of Engineering and Technology (IRJET) is an peer reviewed, open access, high Impact Factor,Multidisciplinary journal in English for the enhancement of research in various discipline of Engineering, Science and Technology. Prime Focus of the Journal is to publish articles related to the current trends of research . IRJET brings together Scientists, Academician, Engineers, Scholars and Students of Engineering Science and Technology.Published by Fast Track Publications.

Why Select IRJET?

- An ISO 9001:2008 Certified International Journal.
- Fast, Easy and Transparent paper publication process
- Low publication fee to promote the research work.
- IRJET Impact factor value : 7.529 for the year 2020 (Verify)
- IRJET is indexed in Google Scholar, academia.edu,Scribd, Slideshare & more..
- UGC Approved Journal in 2017
- IRJET is registered with Ministry of MSME, Govt. of India.
- Open Access Journal database for high visibility and promotion of your articles.
- Open Access Journal (No Subscription required to download Papers)
- Strict Plagiarism Policy
- IRJET provides Free Soft Copy of Certificate of Publication to each Authors.
- IRJET provides Hardcopy Certificate of Publication to each Authors.
- Authors can submit the papers at any time by online submission.
- Authors can pay Accepted paper publication Fee online by Net Banking/ Credit Card/

IRJET- Highlight's

ISO 9001:2008 CERTIFIED

OPEN Access JOURNAL

IRJET Impact Factor 7.529

Google Scholar

30,000+ Articles Published

ISSN INTERNATIONAL CENTRE

Plagiarism checker Technology Partner

IRJET Citation Report

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-00
Volume: 06 Issue: 02 | Feb 2019 www.irjet.net p-ISSN: 2395-007

A Real Time Solution to Flood Monitoring System using IoT and Wireless Sensor Networks

Sonali Patil[1], Jija Pisal[2], Aishwarya Patil[3], Siddhi Ingavale[4], Prajakta Ayarekar[5], Prof. Mrs. Shagupta Mulla[6]

[1,2,3,4,5]U.G. students, Department Of CSE, Bharati Vidyapeeth College Of Engineering, Kolhapur, Maharashtra, Indi
[6]Professor, Dept. of Computer Science and Engineering, Bharati Vidyapeeth college of Engineering, Maharashtra India

---

Abstract – *There are some places that are more prone to flooding than other placess, the implementation of flood alert systems near any major water area or body of water provides critical information that can protect property and save lives. Of course, the most effective flood warning methods are very costly and requires high maintenance and also requires highly qualified employee to operate it.*

Nowadays, there is no idea about when flood will occur so there is need to prewar people who are near the flooded area. Hence we are design this system to inform the people about the upcoming flood through notification and alert messages. For that purpose we are going to use some sensors which will helpful to give information about the flood. As well as we are going to give all safe places near the user location where user can migrate. Always we are using map for trace safe location. This system provides actual implementation to organizations, communities and individuals interested in establishing and operating flood monitoring and warning systems.

Key Words: Flood Monitoring, Node MCU ESP8266, Sensors, Android Application, Web Application

1. INTRODUCTION

To develop A Real Time Solution to Flood Monitoring Using IoT and Wireless Sensor Network, weproposed a flood warning system which requires attention to three basic factors: Data collection via gaging, data processing, and the hardware and software required, and the dissemination of flood warning information. While automated flood warning systems are often surprisingly inexpensive to implement, the primary factor determining cost for any such system is the number of gage site locations.[9]

Severe flooding affected Indian state of Kerala due to unusual high rain during monsoon season. It was the worst flooding in Kerala in nearly a century. In which over 373 people died within fortnight. Thirty-five out of 42 dams within the state open for the first time in history. Kerala received heavy monsoon rainfall on the midevening of August and resulting in dams filling to capacity in thefirst 24 hours of rainfall the state received 310 mm of rain.

2. LITERATURE REVIEW

Existing system refers to the system is to develop a loc
real-time river flood monitoring and warning system f
the selected communities near river. This study focus
only on the detection and early warning alert system (v
website and/or cell phone text messages) that alerts loc
subscribers of potential flood events.

For this project, we have referred some IEEE papers ar
what we have studied in these papers is shortly describ
as follows:

In this paper [10],[11],[12] proposed an IoT based wat
monitoring system that measure water level in real tim
The prototype is based on idea that the level of water c
be very important parameterwhen it comes to the flo
occurrencesespecially in disaster prone area. A wat
level sensor is used to detect the desired parameter ar
if the water level reaches the parameter the signal will
freed in real time to social network like Twitter. A clou
server was configured as data repository. T
measurement of water level are displayed in remo
dashboard. The proposed solution with integrated senso
system that allows inner monitoring of water qualit
Alerts and relevant data are transmitted over the intern
to a cloud server and can be received by user termin
owned by consumer. The outcome of water measureme
is displayed in web based remote dashboard.

In this paper [11], presents a neuro-fuzzy controller bas
on flood monitoring system using wireless sens
network. The distributed sensor nodes used IEEE 802.15
protocol, to collect sensor information such as water lev
data from the river. The Sensor information is send
distributed alerts center via Arduino microcontroller ar
Xbee Transceiver. At the distributed alert center, XB
transceiver and Raspberry pi microcomputer are used
generate flood alert based on sensor information and
detect flood data and this data are stored in database. Th
is not cost effective system. And performance also weak
compared to our system.

e–ISSN: 2395–0056 p–ISSN: 2395–0072

International Research Journal of Engineering and Technology

(An ISO 9001-2008 Certified Journal)

Fast Track Publications

Home | About Us | Current Issue | Past Issue | Archives | For Authors | Contact Us | Pay Online | FAQ

Call for Paper : Dec 2022

Submission Last Date: 31-Dec

Review Status : In 1 week

Online Publication : In 3 Days

- Initial Online submission
- Author Guidelines
- Processing Charges
- Final Online Submission
- ImpactFactor
- Indexing
- Citations
- FAQ
- Editorial Board
- Topics Covered
- Copyright Claims

Current News & Updates

e updated daily ***** We are here to support students and Researchers community...

International Research Journal of Engineering and Technology (IRJET) is an peer reviewed, open access, high Impact Factor,Multidisciplinary journal in English for the enhancement of research in various discipline of Engineering, Science and Technology. Prime Focus of the Journal is to publish articles related to the current trends of research . IRJET brings together Scientists, Academician, Engineers, Scholars and Students of Engineering Science and Technology.Published by Fast Track Publications.

Why Select IRJET?

- An ISO 9001:2008 Certified International Journal.
- Fast, Easy and Transparent paper publication process
- Low publication fee to promote the research work.
- IRJET Impact factor value : 7.529 for the year 2020 (Verify)
- IRJET is indexed in Google Scholar, academia.edu,Scribd, Slideshare & more..
- UGC Approved Journal in 2017
- IRJET is registered with Ministry of MSME, Govt. of India.
- Open Access Journal database for high visibility and promotion of your articles.
- Open Access Journal (No Subscription required to download Papers)
- Strict Plagiarism Policy
- IRJET provides Free Soft Copy of Certificate of Publication to each Authors.
- IRJET provides Hardcopy Certificate of Publication to each Authors.
- Authors can submit the papers at any time by online submission.

IRJET- Highlight's

ISO 9001:2008 CERTIFIED

OPEN Access JOURNAL

IRJET Impact Factor 7.529

Google Scholar

30,000+ Articles Published

ISSN INTERNATIONAL CENTRE

Plagiarism checker Technology Partner

IRJET Citation Report

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 06 Issue: 04 | April 2019 www.irjet.net p-ISSN: 2395-0072

NOS-Network for Organ Sharing

Chaitanya Joshi[1], Vidyashri Jadhav[2], Shriya Karanjkar[3], Rohit Kamble[4], Shubham Deshmukh[5], Prof. Mr. Sagar Patil[6]

[1,2,3,4,5]U.G.students, Department Of CSE, Bharati Vidyapeeth's College Of Engineering, Kolhapur, Maharashtra, India
[6]Professor, Dept. Of Computer Science and Engineering, Bharati Vidyapeeth's College of Engineering, Maharashtra, India

---

Abstract - *There is a shortage of organs for donation in India, not because of lack of organs but because of the lack of the donors who could have saved a life. Organ donation in India is not very popular because of the lack of awareness as well as organs cannot be available at proper time but the need for organ donation is huge.*
For this purpose we are making a web-based model for donating organ and finding desired organ easily and quickly. Hospitals have to register to NOS website. People who are interested can registered themselves to the system through registered hospitals. After doing registration once, hospital can login anytime. Doctors will get information about available organs, quantity of organs, location etc. quickly.

Key Words: **NOS, Organ, Hospital, Donor, Seeker**

1. INTRODUCTION

Organ donation in India has always been on a lower side and around 5 lakh people die every year in India due to unavailability of organs. Lack of knowledge, awareness, and infrastructures are some of the reasons behind the shortage of organ donation.
People might hear about organ donation, but do they really know what it means to those who really need organ transplantation. According to the National Transplant Resource Centre, there are thousands of patients on the waiting list for kidney, heart and lung transplants. However, one in three patients on the waiting list dies before a donor is found. Campaigns by the government to educate peoples on the importance of becoming organ donors were launch, but most people were still reluctant to do so. At present, out of the 1,50,000 patients requiring kidney transplants across India, only 200 get kidneys by the way of donations from the deceased.

The NOS is a web based model for donating organ and finding desired organ easily and quickly. This system is used only by the authorized doctors in authenticated hospitals. At first, hospital must register to NOS website to access this system. People who want to become donor can register their details to through any registered hospitals. Registered hospitals can login any time.

2. LITERATURE REVIEW

There is a huge gap between the number of patients who need organ transplants and the number of organs that are available. The details of such cases are, however, not maintained locally. For this purpose 'NOS' plays an important role. The people who are interested to donate organ can contact with donor hospitals. The donor hospitals must have to register with 'NOS' website. The people who needs organ have to contact with recipient hospital and recipient hospital must register with 'NOS' website.

For this project we have referred some IEEE papers and what we have studied in this paper is shortly described as follows:
"Increasing Human-Organ Transplant Availability: Argumentation-Based Agent Deliberation" highlights human-organ transplantation is the only effective therapy for many life-threatening diseases. However, despite an increase in transplantation successes, the lack of a concomitant increase in organ availability has led to growing disparity between supply and demand. Much research has thus focused on defining and implementing policies. [1]
"Promoting and Assisting Eye Donation Using Mobile Application" highlights the problems and misconceptions, religious views, illiteracy and many factors which are root causes that prevent eye donation. [2]
"Issues in Ethics" paper focuses on difficult ethical questions regarding to organ donation. It contains Limited Supply of Organs, Financial Incentives, Animal Donors, Organ from Healthy Donors, The Changing Physician – Patient Relationship. [3]
"Characterizing Organ Donation Awareness From Social Media" suggest that the most effective solution is to increase organ donor rates; current, proposals


iJRASET
International Journal For Research in
Applied Science and Engineering Technology
INTERNATIONAL JOURNAL
FOR RESEARCH
IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY
Volume: 7 Issue: II Month of publication: February
DOI: http://doi.org/10.22214/ijraset.2019.2101
www.ijraset.com
Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRAS
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 6
Volume 7 Issue II, Feb 2019- Available at www.ijraset.c

Detection and Classification Epileptic Seizure

Miss. Shital. B. Kore [1], Prof. Sanjay. S. Pawar[2]
[1]PG Scholar, [2]Assistant Professor, Department of Electronics and Telecommunication, Bharati Vidyapeeths College of Enginee
Kolhapur

Abstract: ***In this paper detection of epileptic seizure and non- seizure patient detected using the electroencephalogram (E EEG of human brain is obtained by recording of EEG signal it is related to the medical field specialty, diagnosis of brain brain related disease Proposed method based on wavelet coefficients types such as DWT, CWT, SWT (stationary wa transform) being translational invariant.in wavelet coefficient we use different properties. wavelet transform used for fe extraction and classifier used are support vector machine. Different artefact are removed using ICA.EEG advantageou neurological disease if the uses of more feature extraction accuracy is better and also error rate is low.***

Keywords: Epilepsy, kurtosis, Standard deviation, Wavelet transform

I. INTRODUCTION

10% of humans suffers this type of Epilepsy to cure this epilepsy electroencephalogram (EEG) signals is used to record epil patient brain activity. Epilepsy is a brain neurological disease EEG is diagnostic test and monitoring method, EEG is b understanding than MRI and CT scan. International 10-20 system is used in which electrode placed on scalp in different v These electrode placed on scalp of brain.

At the time of EEG recording different artefact are formed or rises artefact such as ocular artefact, power line electrical noise that's why accuracy of the EEG signal reduces so such artefact are need to removes removal of artefact are using indepen component analysis (ICA). ICA separates component in signal between the artefact and brain electrical wave, wavelet coefficie time and frequency domain. recognition or detection of seizure and non -seizure by SVM.

II. RELATED WORK

Cher Hau Seng, Ramazan Demirli, Lunal Khuon,Donovan Bolger research paper "Seizure Detection in EEG Signals Using Su Vector Machine" As a step toward practical simple Epileptic Seizure forecast Using Hybrid Feature Selection Over Mu Intracranial EEG Electrode Contamination of this technology in patient, they present an individualized method for selecting features. The algorithm is instruct on a series of baseline and pre-seizure records and then validated on other. [1]

Ales Prochazka and Jaromir Kukal research "Wavelet Transform Use for Feature Extraction and EEG Signal Segm Classification" a description of a texture sample and find which element of a database best matches that sample. One way to the association is by finding the member of the class with measurements that differ by the least amount from the test sam measurements. This is classification: to associate the appropriate class label (with the test sample by using the measurements describe [2].

III. PROPOSED WORK

A. Methodology and Implementation

The proposed block diagram is shown in Fig.1 Input signal is pre-processed are feature extraction and classification is do identify seizure or normal signal.

1) EEG DATASET: Two sets of data signal is normal and seizure these two set of data contain 10 signal of EEG one EEG da for healthy patient using 10-20 international standard in which electrode placed on scalp. Another EEG dataset for unhe that is seizure patient these database is available on internet. The CHB-MIT EEG database is available for download fr charge via http://physionet.org/physiobank/database/chbmit/. The EEG data was collected from 24 paediatric patien Boston children's hospital. These signals were acquired from 21 surface electrodes placed to form channels by calculatin difference between potentials measured at a couple of electrodes following the international 10-20 system. The channels' l are Pre-frontal (Fp), Frontal (F), Temporal (T), Parietal (P), Occipital (O), and Central (C). The sampling rate of the accession system was equal to 256 samples per second with a resolution of 16 bits. In the present study, the EEG signals o subject 24 were used. 22 files among them 12 presenting seizures are available. The number of seizure segments is equal with duration equal to 511 sec [7]


IOSR JOURNAL OF VLSI AND SIGNAL PROCESSING (IOSR-JVSP)
Find Journal
Submit Now
IOSR Journal List
IOSR Journal of VLSI and Signal Processing (IOSR-JVSP)
Submit Paper
Editorial Board
Current Issue
IOSR-JVSP Archive
Special Issue Archive
Check Paper Status
IOSR Journal of Computer
IOSR Journal of VLSI and Signal Processing (IOSR-JVSP)
About
List of Topics
Call For Paper
Global Statistics
JVSP
Executive Editor : Dr. Ugur Cakilcioglu, china
e-ISSN : 2319 – 4200
p-ISSN : 2319 – 4197
Publication Frequency : 6 Issue per Year
Publisher : International Organization Of Sci

IOSR Journal of VLSI and Signal Processing (IOSR-JVSP)
Volume 9, Issue 1, Ser. I (Jan. - Feb. 2019), PP 23-27
e-ISSN: 2319 – 4200, p-ISSN No. : 2319 – 4197
www.iosrjournals.org

Diagnosis and Analysis of Epileptic Seizure Neurological Disorder Using Electroencephalography

Mr. Sanjay S. Pawar[1], Dr. Sangeeta R. Chougule[2]
[1](Ph.D. Scholar,Shivaji University, Kolhapur, Asst. Professor, Electronics and Telecommunication Engineering, BharatiVidyapeeth's College of Engineering, Kolhapur, , India)
[2](Professor, Electronics and Telecommunication Engineering, KIT's College of Engineering, Kolhapur, India)
Corresponding Author: Mr. Sanjay S. Pawar

Abstract: *Epileptic seizure is neurological disorder which can be diagnosed by using Electroencephalography, in this paper online database is used which is preprocessed and artifact removal of EEG signal is carried out. The primary features and secondary features such as mean, standard deviation, variance, skewness, kurtosis are found, which are given for a linear classifier which is Support Vector Machine for classification as seizure or non-seizure. Performance analysis of algorithm is also carried out by calculation of sensitivity, specificity and accuracy.*

Keywords*–Artifact, Electroencephalogram, Independent Component Analysis, Kurtosis, Seizure, Support Vector Machine.*

Date of Submission: 22-02-2019 Date of acceptance: 08-03-2019

I. Introduction

Epileptic seizure is a neurological disorder, which is fourth common neurological disorder in the United States after migraine, stroke and Alzheimer disease affecting about approximately 2.2 million people worldwide [1]. An Electroencephalogram (EEG) is the medical test that detects electrical activity in brain using small electrodes, necessary system and international 10-20 electrode placing standards. Any variations in EEG patterns for certain state of the subject indicate abnormality. The brain cells communicate with each other via electrical impulses and are active. A proper identification of Epileptic seizure is necessary for appropriate treatment [2]. The EEG signals are subjected to internal and external noise, which are called as artifacts. External Artifacts are minimized by precautionary measurement during recording of EEG, internal artifacts are removed by implementation of notch filer for power noise and extracting required signal by implementation of band pass filter. The other type of artifacts such as ocular movements and ECG artifact is removed by Independent Component Analysis (ICA). In this paper the detection of seizure is done with the help to statistical first order and second order features and then classifying by using linear classifier.

II. Methodology

Detecting or identifying seizure in EEG signal with accuracy is very important appropriate treatment. Figure 1 shows block diagram of Automatic seizure detection system which consist of EEG signals from online database, which are preprocessed and required signal is extracted ,internal artifacts are removed, primary and secondary features are extracted which are further given to linear classifier to classify as seizure and non-seizure and then the performance of system is evaluated.

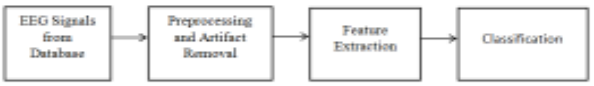


Figure1: Block Diagram of Automatic Seizure Detection System

2.1 EEG SIGNAL AND DATABASE

The EEG is the brain electrical activity measured by putting electrodes on the scalp. The joint activity of millions of cortical neurons, at the depth of several millimeters, produces an electrical field which is sufficiently strong to be measured from the human scalp [4]. Typically, the amplitude of an EEG signal is approximately from 40 to 100 mV with the frequency range from 0 to 100 Hz [5] on the cellular level


IJRAR
Contact Us
editor@ijrar.org
Peer Review , Refereed , Indexed , Multidisciplinary, Multilanguage, Open access Online, Print Journal
WhatsApp Only +91 6354477117
All Policy
Call For Paper
Submit Paper Online
Curent Issue
Archive
Paper Status/ Login
How start New Journal & software
Book & Thesis Publications
IJRAR is Peer Review
Refereed
Open access
Monthly, Multidisciplinary, Multilanguage
Online, Print Journal
INTERNATIONAL JOURNAL OF RESEARCH AND ANALYTICAL REVIEWS (IJRAR.ORG)
International Peer Reviewed & Refereed Journal, Open Access Journal
ISSN Approved Journal No: E-ISSN 2348-1269, P- ISSN 2349-5138
Journal ESTD Year: 2014
Call For Paper - Volume 10 | Issue 1 | Month- January 2023
Read all new guidelines related publication before submission or publication. Scholarly open access , Peer-reviewed, and Refereed, Impact Factor: 7.17, AI-Powered Research Tool , Multidisciplinary, Monthly, Indexing in all major database & Metadata, Citation Generator, Digital Object Identifier(DOI), UGC Approved Journal No: 43602(19)
Submit Paper
Login to Author Home
IJRAR.COM Repository
Communication Guidelines
HOME
IJRAR
EDITORIAL
FOR AUTHOR
CURRENT ISSUE
ARCHIVE
CONFERENCE PROPOSAL
SUBMIT PAPER ONLINE
More..
Call For Paper January 2023
IJRAR Search Xplore - Search all paper by Paper Name , Author Name, and Title
IJRAR.ORG

Comparative Study of LBP, LLBP and DCLBP Methods for Palm Vein Recognition

[1]Vandana S. Bujare, [2]Jayamala K. Patil
[1]P.G.Scholor, [2]Associate Prof. Dept.of Electronics and Telecommunication Engineering, Bharati Vidyapeeth's College of Engineering, Shivaji University, Kolhapur, India.

Abstract: Human identification is done with palm vein recognition biometric system and it provides more security. This technology is highly used in recent years because difficult to forge, everyone having unique vein pattern. And vein pattern cannot change every time so it provides stable and unique results. In this paper Local Binary Pattern (LBP), Local Line Binary Pattern (LLBP) and Diagonal Cross Local Binary Pattern (DCLBP) feature extraction methods are used to extract the features from palm vein images. Region of Interest (ROI) detection by using Competitive Hand Valley Detection (CHVD) algorithm and Probabilistic Neural Network (PNN) classifier is used for matching. All methods are compared by using calculated recognition accuracy and recognition time. Accuracy of 100% is obtained by LBP, DCLBP methods and 95% obtained by LLBP method. And recognition time required for DCLBP is very high and LBP required less time than LLBP and DCLBP methods.

Keywords: Palm vein, Local Line Binary Pattern (LLBP), Diagonal Cross Local Binary Pattern (DCLBP), Probability Neural Network (PNN).

I. INTRODUCTION

Biometric system verifies the person by using physical human features. There are many biometric recognition systems are present such as face, iris, palm print, fingerprint etc but these systems have some problems. In face recognition system accuracy depends on facial expression and illuminations changing factors. In iris recognition system the accuracy is reliable but required device cost is higher than other biometric systems. Palm print and fingerprint recognition systems are contact base methods, in which input sensor contact with user palm and finger surface. In case steal latent of palm and finger prints remain on sensor surface and it affects accuracy as well as hand surface problems like dryness, sweating and skin distortion decrease the accuracy of the system [1]. To overcome these drawbacks palm vein recognition system is developed.

In recent years texture based approach such as Local Binary Pattern (LBP) is widely used for palm vein recognition. Every palm vein image is not clear so that segmentation problem is occurred during the feature extraction process. The recognition accuracy is decreased because of unclear veins and inappropriate segmentation. In this paper Local Line Binary Pattern (LLBP) is proposed for palm vein recognition [2].

The most important element in recognition system is feature extraction. The recognition performance is enhanced by improving the feature extraction methods. Dini Fronitasari [3] discussed different methods used for vein pattern verification. These methods include, hand front-side (palm vein image), hand backside (dorsal) and finger veins. Another new feature extraction method which is modified Local Binary Pattern (LBP) is used for palm vein recognition system. In this process image feature should take diagonal pixel variations. This modification method is known as Diagonal Cross Local Binary Pattern (DCLBP) [3].

In this paper three feature extraction methods which are 1) Local Binary Pattern, 2) Local Line Binary Pattern (LLBP), 3) Diagonal Cross Local Binary Pattern (DCLBP) are used for palm vein recognition. These methods are compared with respect to time required for each feature extraction method and accuracy is obtained by both methods.

The remaining work of this paper is as follows: proposed system described in section 2 which is included Image Acquisition, Preprocessing, Feature Extraction and Matching system is given in detail. In section 3 Simulation and Results of the proposed system is given. And conclusion is described in section 3.


iJRASET
International Journal For Research in
Applied Science and Engineering Technology
INTERNATIONAL JOURNAL
FOR RESEARCH
IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY
Volume: 7 Issue: II Month of publication: February
DOI: http://doi.org/10.22214/ijraset.2019.2069
www.ijraset.com
Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 6.887
Volume 7 Issue II, Feb 2019- Available at www.ijraset.com

Recent Advances in Palm Vein Recognition using Minutiae-Based and Texture-based Feature Extraction Methods

Vandana S. Bujare[1], Jayamala K. Patil[2]
[1]P.G.Scholor, [2]Associate Porf. Dept.of Electronics and Telecommunication Engineering, Bharati Vidyapeeth's College of Engineering, Shivaji University, Kolhapur, India.

Abstract: ***Biometric system is highly used for security purpose in many recent applications. Texture based, Line based, Appearance based, Code based methods are used for feature extraction. Mainly, two methods are used for palm vein feature extraction which are minutiae-based and texture descriptor-based. Many researchers are attracted by Texture based approaches during the last years compared to minutiae based approach which segment veins first and then extract the information of singular point. This facilitated use of texture features in palm vein detection. The study presented in this paper is an extensive survey of the Minutiae-based and Texture-based feature extraction for palm vein recognition.***

Keywords: Palm vein, feature extraction, Minutiae-based, Texture-based

I. INTRODUCTION

Security is the most vital aspect in various applications like, ATM transactions, border crossing control and door access control etc. Many authentication parameters are used for security systems which are password, keys, card etc. Every individual has specific biometric features which facilitate the use of biometric parameters for security. Hence biometric systems are preferred than other security systems. The later have different problems like forgotten password, lost keys and cards duplication. But in biometric system the person himself/herself is required for authentication process. Hence biometric systems are free from the problems like duplication, forgotten, lost etc [1]. Biometric systems are divided into two main types i.e. Physiological and Behavioral system. Physiological system consists of fingerprint/vein, palmprint/vein, facial, iris, hand geometry and Behavioral system consists of voice, signature and keystrokes. The Physiological system proved most useful in many applications. The security systems based on face recognition technique has various features based on illuminations and facial expressions but performance of face recognition is highly dependent on illumination conditions and facial expressions. The security systems based on Iris recognition techniques have a better accuracy but devices used for capturing patterns are more expensive as compared to other biometric systems [2]. Hence to get ride of the above limitations, vein pattern recognition system is widely preferred. In a Physiological Biometric system, vein pattern have more accuracy than other bio- parameters such as fingerprint, palmprint, face and iris. In fingerprint and palmprint technique, user's finger and palm surface are laid on the surface of input sensor. This captures significant finger and palm prints and then these are provided to relevant systems which extract features from prints and uses for further security reasons. This system may have limitation of less accuracy in situations where finger and palm surface are with sweat, dryness, dirt, oiliness etc because skin distortion can degrade recognition accuracy.Finger have small surface area as compared to the palm surface hence palm vein pattern gives better result than finger vein pattern. The security system based on palm vein pattern needs Preprocessing, Feature extraction and Feature matching as major processing steps as shown in figure 1.

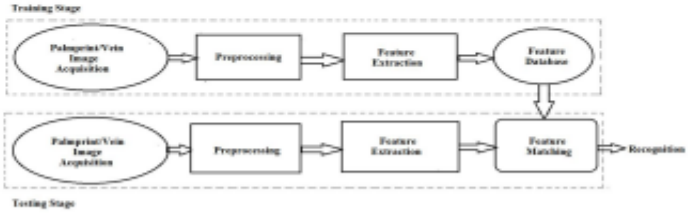


Fig.1 Block Diagram of Palmprint/Vein Recognition

© IJEDR 2019 | Volume 7, Issue 3 | ISSN: 2321-9939

Palm Vein Recognition Based on Local Binary Pattern and Uniform Local Binary Pattern

Vandana S. Bujare, Dr. Jayamala K. Patil
Student, Associate Professor
Bharati Vidyapeeth's College of Engineering Kolhapur

Abstract — Palm vein recognition biometric system is highly accurate and more secure than other person verification systems like key, password and id card etc. because the internal nature of veins pattern. In this proposed work Local Binary Pattern (LBP) and Uniform Local Binary Pattern (LBPU) texture feature methods has been analyzed for palm vein recognition. Probabilistic Neural Network (PNN) classifier has been used for matching process. The CASIA Multi-Spectral Palmprint Image Database V1.0 has been used. The Accuracy and recognition time required for LBP and LBPU are used to analyze the performance of proposed system. It is found that LBP provides 100% recognition accuracy but takes more recognition time compared to LBPU. LBPU provides 90% accuracy in recognition.

Keywords — Palm vein, Local Binary Pattern (LBP), Uniform Local Binary Pattern (LPBU), Probability Neural Network (PNN).

I. INTRODUCTION

Biometric systems are used for personal verification and it provides higher level security. Many biometric systems are used which are fingerprint, iris, face and vein pattern recognition. Palm vein recognition system gives better performance than others because, every person has unique vein pattern therefore verification of person is done with high accuracy. And this system avoid problems like duplication, fraud etc. Texture-Based and Minutiae-Based feature extraction methods are used for palm vein recognition. Texture-Based method was increased attention during last year [1].

There are two methods are used for palm vein recognition such as, contact-based and contact-less methods. The main disadvantage of contact-based method is, palm surface is in contact with input sensor so that, latent hand prints which remain on the surface of input sensor and accuracy level decreases. Therefore contact-less method is more effective for palm vein recognition [2]. Contact-less images are captured with Near Infrared (NIR) light spectrum. The NIR illumination system reduces some typical steps in image processing and avoids problems like backgrounds changing and light variations [1].

Alicia Aglio-caballero et.al [1] Local Binary Pattern (LBP) and Uniform Local Binary Pattern (LBPU) analysis for palm vein recognition with distance based matching process. Leila Mirmohamadsadeghi et.al [3] Local Binary Pattern (LBP) and Local Derivative Patterns (LDP) feature extraction methods studied for palm vein recognition. Wenxiong Kang et.al [4] Local Binary Pattern (LBP) performed with two methods such as, gradient-based maximal principal curvature algorithm and k-means method for improve accuracy and suppress noise in palm vein recognition. Jayanti Yusmah sari et.al [5] proposed Local Line Binary Pattern (LLBP) feature extraction method for palm vein recognition. The unclear vein images problem solved by this proposed system. In 2017 Dini Fronitasari et.al [6] developed modified Local Binary Pattern (LBP) feature extraction method i.e Diagonal-cross Local Binary Pattern (DCLBP). The palm vein recognition accuracy is improved by this modified DCLBP method with Probabilistic Neural Network (PNN) classification technique.

This work includes two texture descriptors which are; 1) Local Binary Pattern (LBP) and 2) Uniform Local Binary


Home
Call For Paper
Current Issue
Editorial Board
Contact us
IJREAM
Welcome to International Journal for Research in Engineering Application & Management (IJREAM)
UGC APPROVED JOURNAL
UGC Approved (2019) :: Peer-reviewed Journal :: An ISO 3297 : 2007 Certification :: ISSN : 2454-9150
Impact Factor 7.427
ADVANCED SCIENCES INDEX
Advanced Sciences Index (ASI), Germany

International Journal for Research in Engineering Application & Management (IJREAM)
ISSN : 2454-9150 Vol-05, Issue-02, May 2019

Synthesis of TiO2 Nanofibers for Solar Cells and Their Analysis Using Statistical Tool-Taguchi Method

[1]Dr. Sachin Chavan, [2]Mr. Sunil J. Kadam, [3]Ms.Latika S. Chaudhary, [4]Dr. S. M. Shendokar, [5]Siddhesh V.Wagh
1Professor, 2Research Scholar, Bharati Vidyapeeth Deemed University College of Engineering, Pune, India
[3]School of Nanoscience and Technology, Shivaji University, Kolhapur, 416004, M.S., India
[4]Professor, JSPM's RSCOE, Tathawade, Pune, India
[1]sschavan@bvucoep.edu.in, [2]s.kad2900@gmail.com, [3]latikac92@gmail.com, [4]shendokar@gmail.com

Abstract—**the rapid population growth, global energy crisis, global warming, and diminution of fossil fuels at a shocking rate necessitate the need for renewable, inexpensive, clean, environmentally friendly, and practical alternatives to fossil fuels. The development of nice performance energy storage devices has be there in high demand thanks to the long cyclic functions. Additionally for prime power densities. Nano fibers stay wide used for energy storage devices in the meantime they need high area, flexibility, pore structure with interconnecting pores, light weight features and other altering properties. Electospinning method is flexible and capable method to synthesis the nanofibers. Nanofibers synthesized by electrospinning are characterized to have high surface area and very good porosity. Electrospun Nanofibers of specific composition of TiO_2 have been identified suitable for energy harvesting. This paper is mainly focused on the synthesis of TiO_2 electrospun nanofibers suitable for energy applications which range from sensing, capturing, conversion and storage for multitude of sources which could be wind, solar, photo, mechanical, pyro, magnetic in nature. This paper encapsulates the important considerations for synthesis of TiO_2 nanofibers using electospinning. Additional, the properties of electrospun nanofibers and its applications in solar cells, fuel cells, Nano generators, Lithium batteries and different energy applications. The benefits and drawbacks of electrospinning and a view on the probable future guidelines are also deliberated.**

Keywords: **Electospinning, Nanofibers, Synthesis, Energy, TiO_2, Energy applications.**

I. Introduction

The electrospinning method offers a potential sanctioning breakthrough to get rid of the barriers by dramatically reducing fiber diameters, leading to huge enhancements in fiber mechanical properties. There is also significant enhancement of other properties such as filtration, electronic, thermal conductivity of material by using these nanofibers. Electrospinning may be a non-contact drawing method within which a chemical compound solution drop originating on the tip of a spinneret is attracted towards a grounded collector underneath the action of a hydrostatic surface tension and potential difference applied. The electro-static forces basis the driblet to stretch, succeeding into bending unpredictability and flogging of the elongated jet manufacturing fibers of nano-scale diameter with very long lengths. Vaporization of solvents additionally takes place because the nanofibers are deposited onto the grounded collector.[1]

There are more than 150 polymer, composite solutions being tried and tested to synthesize Nanofibers catering to several application ranging from Tissue Engineering, Nano-Sensors, Caring Clothing, Improving Skin Masks, Filter Media and Electro-Magnetic and Photovoltaics'. Considering that Energy is most sought after field for researchers, we decided to venture into Solar Energy Harvesting for which we chose to synthesize TiO2 nanofibers.

II. Experimental Setup for Electrospinning

Electrospinning could be a easy and versatile method to get ultra-thin fibers from a range of chemical compound, ceramic or composite solutions. The fundamental four components associated with the electrospinning process as seen in the schematic of Figure 1. In the electrospinning method, a solution driblet is served to the spinneret tip at a well-ordered rate employing a programmable dispensing pump. The dispensing pump may be a Model NE -1000 Multi-Phaser equipped by New Era Pump Systems INC., and has the capability of holding a syringe up to 50 mm in diameter. This pump can dispense solution over a wide range for the volume of 0.1 ml per min. to 10 ml per min. The solution driblet at the tip of the spinneret is acted upon by electro-hydrodynamic forces. The electrical forces area unit because of the potential drop applied between the spinneret and therefore the collector plate.[2]

 DOI : 10.35291/2454-9150.2019.0123


International Journal of Scientific Engineering and Research (IJSER)
e-ISSN: 2347-3878
Home
Current Issue
Call for Paper
Submission Desk
Authors Section
Fee Section
Previous Issues
Downloads
Editorial Board
Policies
Important
Search Articles
Type Your Search Term
Search
Recently Published
Fare Prediction Web App Project with Deployment
Spectral Analysis using Nonparametric Techniques
Call for Papers
International Journal of Scientific Engineering and Research (IJSER) invites the authors to submit their valuable research papers on the latest technology issues. International Journal of Scientific Engineering and Research (IJSER) is an interdisciplinary journal and issued regularly every month. It is a fully refereed open access international journal focusing on theories, methods and applications in various branches of engineering and relevant researches in the field of Social work, Management, education, nursing, medicine, political science etc. It is an international journal that aims to contribute for the constant development and research in various streams of science, engineering and Management.
Submit Article to IJSER
Online Submission: Click Here to Submit Your Article
Submission Email: editor.ijserin[at]gmail.com
Article Publication: Maximum 1 Day
Indexing
Google
INNO SPACE
INDEX COPERNICUS INTERNATIONAL
IJIFACTOR

International Journal of Scientific Engineering and Research (IJSER)
ISSN (Online): 2347-3878
Impact Factor (2018): 5.426

Effect of Turning Process Parameter on Surface Roughness using Inconel as a Material

Pramila T Jarag[1], P. B. Patole[2]

[1, 2]Shivaji University, Bharati Vidyapeeth College of Engineering, Kolhapur, Maharashtra, India

Abstract: ***Inconel 718 is nickel- based superalloy extensively used in aerospace industries, marine industries, steam turbine power plant, and nuclear reactor. Present work focuses on optimization of turning process parameters of Inconel 718 using taguchi optimization technique. Surface roughness was the response variable investigated. Experimental results indicate that proposed mathematical model suggested adequately describe performance indicator within the limits of factors that are being investigated. Tool is the most influencing factor on surface roughness followed by depth of cut, speed and feed.***

Keywords: Inconel 718, surface roughness, Anova, S/N ratio

1. Introduction

The recent developments in science and technology have put tremendous pressure on manufacturing industries. The manufacturing industries are trying for increasing the quality of the machined parts, decreasing the cutting costs and machine more hard materials. High efficiency of machine is obtained by reducing the machine time with high speed of machining. When cutting of hard materials such as Steels, Inconel, Titanium and super alloys, softening temperature and chemical stability of tool material limits the cutting speed [1.1]

The machining operations such as turning, drilling, milling, etc. are carried out on different machines but now a day's CNC machines are most commonly used. While machining, different parameters such as spindle speed, feed rate, depth of cut and type of tool must be considered to get good surface finish and less tool wear with good efficiency of machining. Thus it is necessary to compare surface roughness and tool wear by using different tools [1].

Inconel 718 material is the most difficult material to machine. Improper selection of machining parameters causes cutting tools to wear and break quickly as well as economical losses such as damaged workpiece and rejected surface quality. Machining parameters and tool geometry are the important parameters which affect the machinability properties Nalbant et al (2007) [2]. A machinability model may be defined as a functional relationship between the input parameters (cutting speed, feed, and depth of cut) and the output responses (tool life, surface roughness, cutting force, power and material removal rate) of machining process Choudhury and El-Baradie (1999).

Coated and uncoated carbide inserts are widely used in metal working industry for machining of different material. These two inserts have their own advantages and disadvantages. This experimentation will help to investigate the best cutting insert is whether coated or uncoated carbide insert for the machining of Inconel 718 in CNC turning considering two variables as surface roughness, tool wear and material removal rate. In this investigation the machining parameters used are spindle speed, feed rate and depth of cut [3].

2. Methodology

In current experimentation five process parameters are selected as control factors. The remaining process parameters kept as constant. Controlled and constant parameters are given in table 1 and table 2.

Table 1: Controlled parameters

Sr. No	Controlled parameters
1.	Speed(RPM)
2.	Feed(mm/min)
3.	Tool nose radius (mm)
4.	Depth of cut (mm)

Table 2: Constant parameters

Sr. No	Constant parameters	
1.	Cutting fluid	W4 CBF
2.	Work material	Inconel 718
3.	Work-piece dimension	25 mm x 65mm
4.	Tool holder	SPMG060204DG

For present experimentation, we use L18 design of experiment. There are four process parameters, three process parameter have three levels and one process parameter have two level there parametric combination as shown in Table 3.

Table 3: Parametric combinations

Sr.No	Tool	Speed	Feed	Deth of cut
1	T1	S1	F1	D1
2	T1	S1	F2	D2
3	T1	S1	F3	D3
4	T1	S2	F1	D1
5	T1	S2	F2	D2
6	T1	S2	F3	D3
7	T1	S3	F1	D2
8	T1	S3	F2	D3
9	T1	S3	F3	D1
10	T2	S1	F1	D3
11	T2	S1	F2	D1
12	T2	S1	F3	D2
13	T2	S2	F1	D2
14	T2	S2	F2	D3
15	T2	S2	F3	D1
16	T2	S3	F1	D3

e-ISSN: 2395-0056 p-ISSN: 2395-0072

International Research Journal of Engineering and Technology

(An ISO 9001-2008 Certified Journal)

Fast Track Publications

Home | About Us | Current Issue | Past Issue | Archives | For Authors | Contact Us | Pay Online | FAQ

Call for Paper : Dec 2022

Submission Last Date: 31-Dec

Review Status : In 1 week

Online Publication : In 3 Days

- Initial Online submission
- Author Guidelines
- Processing Charges
- Final Online Submission
- ImpactFactor
- Indexing
- Citations
- FAQ
- Editorial Board
- Topics Covered
- Copyright Claims

Current News & Updates

Current Update: Article evaluation & publication is in process for the November Issue **

International Research Journal of Engineering and Technology (IRJET) is an peer reviewed, open access, high Impact Factor,Multidisciplinary journal in English for the enhancement of research in various discipline of Engineering, Science and Technology. Prime Focus of the Journal is to publish articles related to the current trends of research . IRJET brings together Scientists, Academician, Engineers, Scholars and Students of Engineering Science and Technology.Published by Fast Track Publications.

Why Select IRJET?

- An ISO 9001:2008 Certified International Journal.
- Fast, Easy and Transparent paper publication process
- Low publication fee to promote the research work.
- IRJET Impact factor value : 7.529 for the year 2020 (Verify)
- IRJET is indexed in Google Scholar, academia.edu,Scribd, Slideshare & more..
- UGC Approved Journal in 2017
- IRJET is registered with Ministry of MSME, Govt. of India.
- Open Access Journal database for high visibility and promotion of your articles.
- Open Access Journal (No Subscription required to download Papers)
- Strict Plagiarism Policy
- IRJET provides Free Soft Copy of Certificate of Publication to each Authors.
- IRJET provides Hardcopy Certificate of Publication to each Authors.
- Authors can submit the papers at any time by online submission.

IRJET- Highlight's

ISO 9001:2008 CERTIFIED

OPEN Access JOURNAL

IRJET Impact Factor 7.529

Google Scholar

30,000+ Articles Published

ISSN INTERNATIONAL CENTRE

e-ISSN: 2395-0056
p-ISSN: 2395-0072

Plagiarism checker X

Technology Partner

IRJET Citation Report

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 06 Issue: 04 | Apr 2019 www.irjet.net p-ISSN: 2395-0072

Dynamic Analysis of Bumper Beam

Gourav R. Mhatre[1], Sandip N. Channewadkar[2], Sangram S. Mohite[3], Nana K. Metkari[4], Satish A. Chile[5], Gajendra J. Pol[6]

[1,2,3,4,5]U.G. students, Department of Mechanical, Bharati Vidyapeeth College of Engineering, Kolhapur , Maharashtra, India.

[6]Asst. Prof. Dept. of Mechanical, Bharati Vidyapeeth College of Engineering, Kolhapur, Maharashtra, India.

Abstract - *Now a days automobile accidents are increasing each year, The main reason is being the lack of proper safety system in the vehicle. In case of automobiles we can see that the 60% of accidents caused due to frontal impact of the automobile and the bumper beam is generally used to protect the automobile components from the impact. The bumper playing key roll in automobile as well as human safety purpose. An automotive bumper beam is structural component with intended absorb kinetic energy during vehicle collision. this paper throws light on materials, structure and safety impact condition included for analysis of bumper beam in order to improve crashworthiness during collision.*

Key Words: (bumper, analysis, deformation, stress)

1. Introduction

Presently days Car crashes expanding every year the greater part of risk circumstances are jumped out at driver that they can not be keep away from. As indicated by overview that 60% mishaps are happened front of vehicle and this effects are most usually observed, unintentional circumstances on street. .This gives most elevated bit of death .The main reason of this being lack of proper safety system in vehicle. In automobile vehicle bumper beam is a primary component which plays a very important role. Which takes entire damage and transfer all forces to structure. As well as bumper beam is used to absorb accidental kinetic energy by deflection low speed impact and by deformation in high speed impact. Stiffness and energy absorption are essential criteria in design of bumper beam. The new bumper design must be very flexible to reduce passenger and occupant injury and stay in impact in low speed impact. The reinforcement beam play very important role in safety it must be validate to finite element analysis. Aim of this study improving the crashworthiness and energy absorbing capacity of bumper beam and selecting the best suitable material which gives the best result under the deformation .figure shows of basic component of bumper, bumper system is made up of four main parts a bumper fascia, energy absorber, reinforcing beam, bumper stay. Bumper fascia is outside covering of bumper as shown in figure. Energy absorber is usually made up of foam material that is design to absorb impact energy.This study is done on CATIA and Ansys software.

Basic components of Bumper:

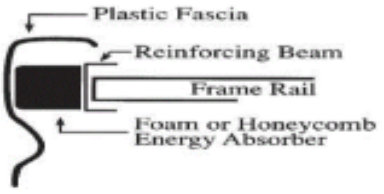


Fig. Basic components of Bumper

1.1 Literature Review

1."Crashworthiness Analysis of a Composite and Thermoplastic Foam Structure For Automotive Bumper Subsystem"

Giovanni Belingardi, Ermias Gebrekidan Koricho, Alem Tekalign Beyene, Brunetto Martorana , Mangino Enrico

In the study, the re-design of a front bumper subsystem has been developed finalised to Light weight. Alternative solutions have been considered by substituting the used steel with other suitable materials. The bumper beam solutions, based on these alternative materials, have been developed on the bases of equal thickness and equal stiffness criteria. Comparison of the obtained FE simulation results illustrates how the choice of material can significantly affects the performance of bumper subsystem. The introductions of local reinforcements at the stress concentration point enhance the composite bumper beam performance by redistributing the stress and preventing local failures. However the PA66 solution, even if reinforced with short glass fibres, does not reach comparable result with respect to the CFRP solution. Looking at the results from another point of view, the polyamide with 30% glass solution leads to better results in term of possible material recycling at the end of life, while CFRP has still problematic perspective.

2."Improving The Crashworthiness Of An Automobile Bumper"

Arun Basil Jacob1, Arunkumar O.N

This paper compares newly designed bumper with existing steel bumper of a Toyota Camry automobile. The crash tests were executed in a software environment. All the simulations were executed using LS-DYNA. The material


iJRASET
International Journal For Research in
Applied Science and Engineering Technology
INTERNATIONAL JOURNAL
FOR RESEARCH
IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY
Volume: 7 Issue: VII Month of publication: July 2019
DOI: http://doi.org/10.22214/ijraset.2019.7019
www.ijraset.com
Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.177
Volume 7 Issue VII, July 2019- Available at www.ijraset.com

Study and Analysis of Bitumen Mixture Incorporating with Waste Foundry Sand

Nikhilesh M. Soundattikar[1], Vikramsinh S. Tiware[2], Dipashree B Mane[3], Vivek V. Mane[4]
[1, 2, 4]Assistant professor, Department of Civil Engineering, Bharati Vidyapeeth's College of Engineerin, Kolhapur 416013,India
[3]Assistant professor, Department of Civil Engineering, D. Y. Patil College of Engineering & Technology, Kolhapur 416006,India

Abstract: ***In 20th century India is aiming to be developed country. The backbone of any developed country is its Infrastructure facility. Now day in India lot of infrastructure projects are going on, in that the road transportation facility is a very important criteria. In recent years there is spontaneous increase in demand of good quality pavements in Urban as well as in rural areas. The construction of good quality roads is mainly depend upon the funding available for construction and quality of raw material available for construction of road, so it very important to construct good quality roads in low budget.***

Due to scarcity natural resources, the cost of raw material is increasing day by day, so it is important to find out alternative material for construction of roads. Now a day's various Industrial wastes are utilized for road construction. In Kolhapur city there are lot of foundry industries, which generated lot foundry sand waste. Generally this waste is dumped in open areas. This foundry sand can be utilized for various construction purposes. Famously this is utilized in concrete.

In this study the emphasis is given to use of foundry sand waste in flexible pavement construction. The focus of this study is to analyse the impact of foundry sand on properties of bitumen. In this study we have carried out standard testing of bitumen with percentage replacement of foundry sand to compare the properties of normal bitumen and foundry sand mix bitumen. 2%, 3% & 4 % foundry sand replacement is done and tests are carried out as per standard procedure. After conduction of tests it has been found that the properties of bitumen are changed and those are not as per IS requirements. Only the value of flash point and fire is within the range specified by IS codes.

Keywords: Foundry sand, Bitumen, waste utilization, Highway Engineering, Flexible pavements, Bitumen testing.

I. INTRODUCTION

Infrastructure development is the burning issue now days in India. To meet the requirements in the construction of pavements and other structures bitumen plays the important role and a large quantity of bitumen is being utilized in every construction practices. In civil engineering, due to urbanization the demand for construction materials increases, with the increase in demand there is a strong need to utilize alternative materials for sustainable development.

The problem industry facing today is waste disposal. Reuse of waste in construction or as a construction material may be cheapest and best solution. Foundry sand is abundantly available waste materials which can be used as construction material. Dumping of foundry sand can form the leachate due to its chemical properties. So reuse of foundry sand can be proved economical and environment friendly.

The increase in the popularity of using environmentally friendly, low-cost and lightweight construction materials in construction industry has brought about the need to investigate how this can be achieved by benefiting to the environment as well as maintaining the material requirements affirmed in the standards. By partial replacements of foundry sand in bitumen can reduce the environment degradation and can be a cost effective solution.

To study the properties of bitumen after replacement of foundry sand lab tests are carried out. Penetration test, softening point test, ductility value & Fire and flash point tests are carried out. First upon all tests are carried out on normal bitumen without any replacement of foundry sand & after that tests are carried out on 2%, 3% & 4% foundry sand replacement. All the tests are carried out as per IS code standards.

II. AIM AND OBJECTIVE

Following are the objective of study

A. To study the properties of bitumen incorporating with the foundry sand
B. To compare the properties of normal bitumen & Foundry sand mixed bitumen
C. To find out optimum foundry sand mix proportion for bitumen.

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.177
Volume 7 Issue VII, July 2019- Available at www.ijraset.com

A Review on Conceptual Model of in Basin Plant to Increase Self –Purification of River

Tiware V S[1], Mane D B[2], Mane V V[3], Soundattikar N M[4]
[1, 3, 4]Assistant Professor BVCoE Kolhapur
[2]Assistant Professor DYPCoE Kolhapur

Abstract: ***This paper aims to study of conceptual model of in basin plant that will helps to increase self purification rate of river. Now a days purification of river have become problem so the study on this is become important.***

The self-purification of natural water systems is a complex process that often involves physical, chemical, and biological processes working simultaneously. [07] Running water is capable of purifying itself with a distance through a process known as self-purification. This is the ability of the river to purify itself of sewage or other waste naturally. The process of self-purification mainly depends on absorption and dissolution of atmospheric oxygen from a water body surface. This self-purification cannot be depended upon to bring about complete purification, but it may well improve the water quality sufficiently. When disposal of sewage in the stream, the stream water is examined towards down streams, it will be observed that the quality of stream water successively changes. Near the place of disposal, the water will be polluted and it becomes purified after some travel towards the downstream side due to natural forces of purification.

Keywords: River Self Purification, Water Treatment, BOD, COD.

I. INTRODUCTION

River restoration is the process of managing rivers by various operations to reinstate natural processes to restore biodiversity, providing benefits to both people and wildlife. Reintroducing natural processes can reshape rivers to provide the diversity of habitats required for a healthy river ecosystem and ensure their long-term recovery by addressing the root cause of the issue. River degradation has led to an extensive loss of habitats and additional pressures on the aquatic and terrestrial species that use them. It also affects the quality of our drinking water, resilience to climate change and ability to store and hold back flood water. Damage to river systems has been so extensive that an urgent need has emerged, not only to conserve, but to restore these systems. In recent years, severe problem in front of whole nation is water pollution. We have seen that various national authorities are works for pollution control. Still the level of pollution day by day goes higher. Highest number of polluted rivers Maharashtra state has 49 polluted river stretches, highest in the country, which including Mithi, Ulhas, Vaitarna, Godavari, Bhima, Krishna, Tapi, Kundalika, Panchganga, Mula-Mutha, Pelhar and Penganga. 3,000 MLD of untreated sewage and industrial effluents are discharged into the state's water bodies daily. This causes serious impact on human health as well as environmental.[1] So it is necessary to conserve rivers by various human efforts and engineering techniques. Hence we are going to work for the restoration of river by implementing modern river restoration techniques on the basis of principles of self purification of streams.

A. Factors Affecting self- Purification

1) *Dilution:* When sufficient dilution water is available in the receiving water body, where the wastewater is discharged, the DO level in the receiving stream may not reach to zero or critical DO due to the availability of sufficient DO initially in the river water before receiving the discharge of wastewater.
2) *Current:* When strong water current is available, the discharged wastewater will be thoroughly mixed with stream water preventing deposition of solids. In the small current, the solid matter from the wastewater will get deposited at the bed following decomposition and reduction in DO.
3) *Temperature:* The quantity of DO available in stream water is more in cold temperature than in hot temperature. Also, as the activity of microorganisms is more at a higher temperature, hence, the self-purification will take less time at hot temperature than in winter.
4) *Sunlight:* Algae produces oxygen in the presence of sunlight due to photosynthesis. Therefore, sunlight helps in purification of the stream by adding oxygen through photosynthesis.


International Journal For
Research & Development in Technology
Dedicated to Excellence
(ISSN (O):- 2349-3585)
IJRDT
Submit
Home
About Us
Policy
Authors
Reviewer
Archives
FAQs
Contact Us
Advance Search
Google scholar
Cosmos
High Impact Factor
Impact Factor
6.88
Call For Paper
(Vol.18,Issue-6,Dec-2022)
Submit Manuscript
Google
Author Guide
Paper template
Copyright Form
Research Areas

INTERNATIONAL JOURNAL FOR RESEARCH & DEVELOPMENT IN TECHNOLOGY

Volume-12,Issue-1(July-18)
ISSN (O) :- 2349-3585

EFFECT OF ZONE FACTOR ON SEISMIC PARAMETERS OF RC BUILDING

Satish S. Kotwal[1], Vidyanand S. Kadam[2], Mayur M. More[3], Vivek V. Mane[4]
Assistant Professor, Department of Civil Engineering, BharatiVidyapeeth's College of Engineering, Kolhapur, Maharashtra, India

ABSTRACT:Considerable development in earthquake resistant design has been taken placed in recent past. As a result Indian seismic code IS: 1893 has also been revised in year 2016. This paper presents the seismic load estimation for multistory RC buildings as per IS: 1893-2002 and IS: 1893-2016 recommendations. In present study G+12 and G+16 RC Ordinary Moments Resisting Framed buildings (OMRF) were analyzed. The study of effect of zone factor on seismic parameters is performed by seismic coefficient method laid by these two versions. The results were compared in terms of base share, storey drift, time period, story shear and storey displacement and conclusion were drawn. It is concluded that such study needs to be carried out for individual structure to predict seismic vulnerability of RC framed buildings that were designed using earlier code and due to revisions in the codal provisions may have observed vulnerable to earthquake

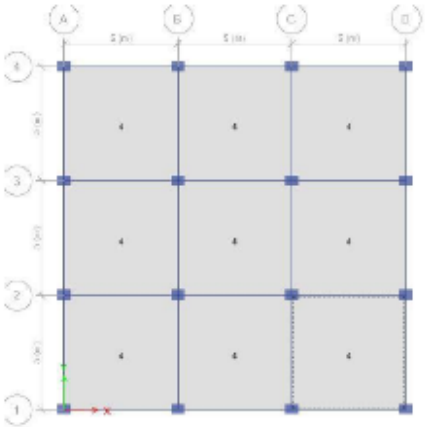
Keywords: Earthquake, seismic zone, vulnerability, seismic parameters, seismic load.

I. INTRODUCTION

There has been an increased awakening among experts, owners, designers, engineers and the society at large about the significance of earthquake protection of structures. At the same time, there has also been persistent research & trainings in the field of seismic engineering, demanding updating of codes and standards from time to time. IS 1893 (Part 1) and IS 13920 has been recently revised, bringing into state of practice, the progress made in research. There is an often-repeated saying, "Earthquakes don't kill people, buildings do." One can't control the seismic hazard in the community where one lives or work, but can certainly influence the most important factor in saving lives and reducing losses from an earthquake by the adoption and enforcement of up-to-date building codes. In present study G+12 and G+16 RC ordinary moments resisting framed buildings were analyzed. The study of effect of zone factor on seismic parameters is performed by using seismic coefficient method laid by IS 1893:2002 and IS 1893:2016.The results were compared in terms of base share, storey drift, time period, story shear and storey displacement and conclusion were drawn.

II. DESCRIPTION OF BUILDINGS

The structures representing medium and high rise reinforced concrete framed buildings are considered in this Study. Utility of building is residential building, RC OMRF buildings G+12 and G+16 are considered. All buildings have similar plan dimension 15m X 15m as shown in figure 1. Building is resting on medium soil. Floor to floor height is 3 m, the thickness of slab is 150 mm and size of all columns is 450 mm X 600 mm whereas size of all beams is 230mm X 600 mm. The Imposed load on floor is 3kN/m2 and imposed load on roof is 1.5 kN/m2.Floor finishes is 1 kN/m2 and roof treatment load is 1.5 kN/m2. The infill walls are 230 mm thick all around. Damping factor was 5%. The grade of concrete and steel is M20 and Fe415 respectively. Buildings are first designed for gravity loads only as per IS 456:2002.




iJRASET
International Journal For Research in
Applied Science and Engineering Technology
INTERNATIONAL JOURNAL
FOR RESEARCH
IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY
Volume: 7 Issue: VII Month of publication: July 2019
DOI: http://doi.org/10.22214/ijraset.2019.7211
www.ijraset.com
Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.177
Volume 8 Issue I, Jan 2020- Available at www.ijraset.com

A Study of Physico-Chemical Characteristics of Jayanti Nalla Water along with it's Tributaries with Special Emphasis on Quality of Panchganga River

Nitish A. Mohite[1], Vinayak B. Patil[2], N. S. Misal[3]
[1, 2]Assistant Professor, BVCOE, Kolhapur
[3]Assistant Professor, DYPCET, Kolhapur

Abstract: ***India has been undergoing industrial revolution in a big way during the last three decades. With the recent liberalization of industrial policy, it has got a further boost. Economic conditions of the common man will improve, prosperity will prevail. This is all provability 'one side of the coin' the other side of coin is not very bright. The industries spend solid, liquid and gaseous substances in to the environment. Unless such substances are effectively managed, our environment may get damaged irreparably. The scientific and technological advancements and mismanagement of natural resources have given rise to numerous environmental problems such as pollution of water, soil, air radiation and noise, with consequent adverse effects flora, fauna, human health and well-being.the environment is under more sustained threat from human activity in the 21st century than at any other time in the history with extensive potential social and health consequences.***

The increasing rate of human population and rapid pace of industrialization has created many problems of pollution in the rivers and streams. The domestic wastes and industrial effluents are being indiscriminately discharged in the nearby rivers, reservoirs, lakes and tanks. In Kolhapur city similar situation is observed in Panchganga river where four major nallas viz. Jayanti nalla, line bazaar nalla, dudhali nalla and bapat camp nalla, directly release effluents into the river. As the pollutants are discharged in the river through these nallas, the intensity of river pollution is increasing highly. Tremendous increase in population, industrialization, agriculture run off is adding to the pollution of available water resources. So it is worthwhile to assess the quality of the jayanti nalla water and the small streams connecting to it, to study its possible environmental impacts.

Keywords: Jayanti nalla, Panchganga river, industrial effluents, environmental impacts, pollutants

I. INTRODUCTION

In this document A case study is done of Jayanti nalla out of above mentioned four major nallas that carries almost 70 to 75 percent of total effluent generated in Kolhapur. The marked effects are change in physical, chemical and biological properties of streams. The rising contamination sources in urban systems results in chemical pressures often manifested as elevated pollution load, which in turn have damaging impacts on human health.

The study of River water pollution, an environmental crisis a case study of Panchaganga river of Kolhapur city has been done by D. H. Pawar et.al. The conclusions drawn out were that a considerable BOD and COD, low PH, high organic matter, highest dissolved solids indicate water polluted generally by effluents from agro-based industry, leather tanneries, domestic sewage etc. [1]

A Study on the Physico-Chemical Characteristics of Panchaganga River in Kolhapur City, MS, INDIA by Thorvat A.R., et.al is done. In this paper it is found that the physico-chemical and biological parameter features of this river fluctuate from place to place due to discharge of agricultural, municipal as well as industrial wastes into it. Temperature values are ranging from 29°C to 39°C. It is observed that the water, temperature is within the desirable limit.The pH values vary from 5.3 to 8.3 [2]

A study on Water Pollution and Public Health Issues in Kolhapur City in Maharashtra is done by Mr. Swapnil Kamble. In this paper, an attempt has been made to understand the problem of water pollution of *Panchaganga* river due to urbanization and industrialization and its impact on public health in Kolhapur city and measures to be taken to deal with this problem effectively. [3]

A research study on Water Quality Analysis And Simulation Of Panchaganga River Using Matlab is done by Mr. Riyaj K. Mulla et.al. The outcome briefly describes how MATLAB programming tool can be used for prediction of water quality in river.Also how MATLAB helps to predict future water quality with present data and save time, manpower and other cost for continuous analysis.[4]

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.177
Volume 7 Issue VII, July 2019- Available at www.ijraset.com

Structural Analysis of Steel Transmission Tower for different Risk Coefficients-A Case Study

Nitish A. Mohite[1], Vinayak B. Patil[2], V. G. Shetti[3]
[1, 2]*Assistant Professor, BVCOE, Kolhapur*
[3]*Assistant Professor, DYPCET, Kolhapur*

Abstract: ***The present study deals with the analysis of the steel transmission tower for different risk coefficients located in Pune and Delhi. The analysis of the steel transmission towers has been done by using SAP2000 Integrated Solution for Structural Analysis and Design Software version 20.***

A study has been done of both the models subjected to wind and seismic forces as per IS codes and the results so obtained were compared for DIFFERENT RISK COEFFICIENTS with the same configuration. A comparative analysis has been carried out for various parameters like axial force, bending moment, base reaction, torsion, shear force etc. and critical load conditions for both the Pune and DELHI location.

Keywords: SAP2000, risk coefficient, steel transmission tower, wind force, seismic forces

I. INTRODUCTION

This document A case study is done to check whether the same structure along with its same configurations can be safe when they are located at different locations and subjected to wind and seismic forces as per IS codes with different risk coefficient or probability factor (k_1). Analysis is been carried out as per the IS 800:2007(LSM) and IS 1893:2002 codes. The load calculations are done manually but the results obtained are from SAP2000 analysis software v.20.

The study of Analysis and Design of Three and Four Legged 400KV Steel Transmission Line Towers: Comparative Study has been done by Y.M.Ghugal et.al.

The conclusions drawn out were that axial forces and moments are increased in 3 leg transmission tower as compared to 4 leg transmission tower on the contraverse there is less steel consumption and area required for 3 leg transmission towers as compared to 4 leg transmission tower. [1]

A study on Structural Analysis and Design of Steel Transmission Tower in Wind Zones II and IV using STAAD.ProV8i by S.Panwar et.al is done. In this paper it is found that the axial forces and bending moments have changed for the two different locations. [2]

A study on Static and Dynamic Analysis of Transmission Line Towers under Seismic Loads is done by S.Karthik C S et.al. The paper introduces different types of transmission tower and its configuration as per Indian Standard IS-802. A typical type of transmission line tower carrying 220kV single circuit conductors is modelled and analysed using SAP2000 considering forces like wind load, dead load of the structure, breaking load of the conductors and earthquake load as per Indian Standard IS1893: 2000 (part The conclusion drawn out from this paper is that Study of different load cases on structure is very important to recognize the case that will cause larger deflection in tower model and to say which case will be optimized and Tower structure with least weight is directly proportional in reduction of the cost. [3]

A research study on Seismic Response of Power Transmission Tower-Line System Subjected to Spatially Varying Ground Motions is done by Li Tian, Hongnan Li, and Guohuan Liu. The outcomes prove that the uniform ground motion at all supports of system does not provide the most critical case for the response calculations. [4]

A study about the design of four-legged steel lattice tower for categorization of gravity and lateral loads under various load combinations for Shimla using IS 800:1984 by Bhardwaj H.L. et.al. [5].

A comparative analysis carried out for different heights of towers using different types of bracing system for wind zones I to V and earthquake zones II to V of India by gust factor method is used for wind load analysis, model analysis and response spectrum analysis, used for earthquake loading by Sharma Kr. K. et al. [6].

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.177
Volume 7 Issue VII, July 2019 - Available at www.ijraset.com

A Literature Review on Various Types of Materials used for Full/U-Shaped Beam Jacketing Subjected to Pure Torsion

Mane V V[1], Tiware V S[2], Soundattikar N M[3], Jadhav A M[4], Mane D B[5]
[1, 2, 3, 4]Department of Civil Engineering, BVCOEK
[5]Department of Civil Engineering, DYPCOEK

Abstract: When an eccentric load/force is acted on a structural member other than bending plane which creates rotational moment in the body known as torsion. Concrete is most used worldwide material in construction industry and having weak in tensile strength. So it gets cracked when external load/force crosses equilibrium/compatibility conditions of the concrete body. Improvement in ductility effect, durability and strength etc. of existing structure or earth quake affected structures the most preferably repairing work can be done by using retrofitting method. Since from last three decades the retrofitting of required structures are done by using polymer fiber materials. The polymer fiber jacket are having types like **FRP,GFRP,CFRP** and aramid etc. Recently remarkable researches has been seen on utilization of ferrocement full, U-shaped jacketing with continue wrapping sheets or in strips. All above said jacketing can be apply in execution work with respect availability, suitability, amount of need and costing etc.

Keywords: Quassi brittle material, Polymer fiber jacket, ferrocement jacket.

I. INTRODUCTION

It is well known that there are four actions like axial, shear, bending and torsion are developed with respect to their nature of loading on the structure. Torsion is always considered as a secondary effect up to 1960's. After that we moved from working stress to limit state and shall go to ultimate one to reduce the factor of safety. Concrete is quassi brittle material weak in tensile strength it gets fractured even introduction of reinforcement in the body of the concrete. Polymer fiber is a composite material used for strengthening purpose of existing structural member to predominant torsion effect. The fibers are generally plastic fiber, glass fiber, carbon fiber, aramid etc. Also other fibers such as paper, wood or asbestos sheet have been used. However all above fiber sheets required a well adhesive like epoxy, vinylester etc. to achieve proper surface bonding. Although polymer fiber has near about more than one century history since from 1905 but such material is utilized for concrete as a mainstream technology effectively since from last three decades. Polymer fiber have very high tensile resistance property but relatively less young's modulus than concrete and poor stability in compression so it is utilized as a composite material with concrete. Such material are named as a FRP,GFRP,CFRP,aramid etc. with respect the material used for application. Recently there is also utilization of Ferrocement all sides, U-shaped jacketing with continued wrapping sheets or in strips. All above said polymer fibers can be used in our engineering application with respect to availability, requirement, costing, suitability etc.

II. LITERATURE REVIEW

A. Polymer fiber jacketing like FRP, CFRP, GFRP, ARAMID fiber etc.

Constantin E.Chalioris [1] (2007) has predicted an analytical approach to observe the torsional response of reinforced concrete beams strengthened with fiber reinforced polymer material. To form the theoretical equations he casted twelve tests specimen and took additional database of experimental information for twenty four specimens compiled from other researchers. He introduced that the analysis method employs the combination of two different theoretical models i.e a smeared crack model up to pre cracking stage and soften truss model for post cracking response. Such proposed methodology is achieved through extensive comparisons between analytically predicted behaviour curves and experimentally obtained results. This study allows the realistic modeling of the elastic and the post cracking response of FRP strengthened RC beams under torsion.

Constantin E.Chalioris[2] (2008) investigated the full torsional behavior of RC beams strengthened with FRP materials and made theoretical analysis of that. The present experimentation deals with the observation of the torsional strengthening of concrete beams without stirrups using epoxy-bonded carbon fibre-reinforced-polymer (FRP) sheets and strips as external transverse reinforcement.

INTERNATIONAL JOURNAL OF COMPUTER TECHNOLOGY AND APPLICATIONS

English title: INTERNATIONAL JOURNAL OF COMPUTER TECHNOLOGY AND APPLICATIONS
ISSN: 2229-6093, 2229-6093
GICID: 71.0000.1500.3602
DOI: n/d
Website: http://www.ijcta.com
Publisher: TECHNOPARK PUBLICATIONS,TECHNOPARK PUBLICATIONS
Country: IN
Language of publication: n/d

ISSN:2229-6093

Rajani Sangappa Sajjan et al, International Journal of Computer Technology & Applications,Vol 9(6),353-358

AES-VR: A New Approach for Cloud Data Confidentiality

[1]

Ms Rajani Sangappa Sajjan , Dr. Vijay Ram Ghorpade

Department of Computer Science and Engineering, VVPIET, Solapur, MH

[2]Principal, Bharati Vidyapeeth's College of Engineering, Kolhapur, MH

[1]rajanisajjan78@gmail.com, [2]vijayghorpade@hotmail.com

Abstract

Confidentiality is one of the important security parameters related to cloud data security. The confidentiality is provided by applying encryption algorithm. In this paper we are proposing a variant of Advanced Encryption Standard (AES), i.e. AES-VR with a new property of key schedule process. This process is updated by adding a new layer of operation to achieve high diffusion property of cryptographic technique. The results have been tested for standard security parameters, viz. avalanche effect and strict avalanche criteria. This new approach is proposed to provide cloud data confidentiality.

1. Background:

The Advanced Encryption Standard (AES) is one of the symmetric key cryptographic techniques used to provide data confidentiality. It is designed to be effective in both hardware and software. It operates on block of data, byte-wise instead of bitwise. The size of data block used is 128 bits. It supports 3 different key sizes of 128, 192 and 256 bits. The 128 bit data block is treated as 16 bytes data, arranged in 4 X 4 matrix, called as state array. It performs operation in rounds, 10 rounds for 128 bit key, 12 rounds for 192 bit key, and 14 rounds for 256 bit key. AES is based on substitution permutation network hence it has several rounds for performing operation. The number of rounds, N_r, is calculated based on N_k, key size in number of words and N_b, block size in number of words, i.e. $N_r = 6 + \max\{N_b, N_k\}$. In each round it performs four steps of operations except the last round. These operations are listed below.

i. *Key expansion*: cipher key is used as input for key expansion operation
ii. *Initial round*: AddRoundKey: Initially state array is XORed with the first round key.
iii. *Round:* During each round following
iv. *Last round:* It is the final round in which following operations are performed on state array
   - SubBytes
   - ShiftRows
   - AddRoundKey

The detailed description about AES can be found in [1] [2]. The AES is widely used to transfer data securely over the network. Since 2001 to till date various research in terms of attacks on AES and solutions for them is carried out. The security of AES lies in complexity of S-box and key schedule process. Below some of the research work related to enhancing security of AES is given followed by the main idea behind proposed AES-VR.

In [3] Partheeban introduced a new approach for building S-box. Here nonlinear transformations are applied to increase the complexity. The S-box is generated dynamically by using secret key used in AES.

In [4] Choy and others have proposed an on-the fly key schedule which they claim that is resistant against related key differential and boomrang attacks. In this paper they have done the analysis of attacks and their solutions.

P. Freyre and others [5] proposed variations to AES and Twofish algorithms. For achieving this they suggested the use of maximal distance separable (MDS) matrices. They used the set of MDS matrices and any one matrix is randomly selected to process the variation in AES and Twofish. This is done to produce high diffusion. In this scheme space requirement increases to store the set of MDS matrices and introduces extra time required to process the matrix in key scheduling.

Krishnamurthy [6] presented new property of AES using S-box and inverse S-box. This property is used to construct S-box which is key dependent. Abdullah and others [7] proposed AES variant by introducing modification in S-box. To perform this they added extra byte to the secret key. The random additional key is used to increase security. This additional byte imposes extra processing time.

GCM-AES-VR : A Scheme for Cloud Data Confidentiality and Authenticity

Rajani S. Sajjan[1], **Vijay R. Ghorpade**[2]

Section:Research Paper, Product Type: Journal Paper
Volume-6 , Issue-12 , Page no. 86-94, Dec-2018

CrossRef-DOI: https://doi.org/10.26438/ijcse/v6i12.8694

Online published on Dec 31, 2018


International Journal of
Information
Technology

Original Research | Published: 15 December 2018

Efficient resource allocation scheme for on-the-fly computing based mobile grids

Amit Sadanand Savyanavar & Vijay Ram Ghorpade

International Journal of Information Technology 14, 943–954 (2022) | Cite this article

27 Accesses | 2 Citations | Metrics

Abstract

Mobile grid (MG) is emergi ng as a new computing paradigm due to the ubiquitous availability of mobile devices. With the advancement in the capability of these devices, computationally intensive tasks can be executed using a peer-to-peer grid of such devices. MG can provide an edifice to execute parallel computationally intensive tasks. Key challenges that crop up while computing on a MG are resource constrained environment, inefficient resource allocation, high failure probability, etc. As a result, selection of appropriate nodes for task execution becomes critical for successful execution of the application. In this paper, we propose an efficient resource allocation model (ERAM) which provides resource allocation with failure handling. We created a MG comprising of Wi-Fi Direct connected Android smartphones. Different scenarios are considered for the purpose of experimentation. Our approach performs well with respect to application completion time, % battery consumption and recovery time from failure in comparison with existing techniques.

e–ISSN: 2395–0056 p–ISSN: 2395–0072

International Research Journal of Engineering and Technology

(An ISO 9001-2008 Certified Journal)

Fast Track Publications

Home | About Us | Current Issue | Past Issue | Archives | For Authors | Contact Us | Pay Online | FAQ

Call for Paper : Dec 2022

Submission Last Date: 31-Dec

Review Status : In 1 week

Online Publication : In 3 Days

- Initial Online submission
- Author Guidelines
- Processing Charges
- Final Online Submission
- ImpactFactor
- Indexing
- Citations
- FAQ
- Editorial Board
- Topics Covered
- Copyright Claims

Current News & Updates

IRJET Vol-9 Issue 11, Nov 2022 Publication is in

Current Update: Article evaluation & publication is in process for the November Issue ***

International Research Journal of Engineering and Technology (IRJET) is an peer reviewed, open access, high Impact Factor,Multidisciplinary journal in English for the enhancement of research in various discipline of Engineering, Science and Technology. Prime Focus of the Journal is to publish articles related to the current trends of research . IRJET brings together Scientists, Academician, Engineers, Scholars and Students of Engineering Science and Technology.Published by Fast Track Publications.

Why Select IRJET?

- An ISO 9001:2008 Certified International Journal.
- Fast, Easy and Transparent paper publication process
- Low publication fee to promote the research work.
- IRJET Impact factor value : 7.529 for the year 2020 (Verify)
- IRJET is indexed in Google Scholar, academia.edu,Scribd, Slideshare & more..
- UGC Approved Journal in 2017
- IRJET is registered with Ministry of MSME, Govt. of India.
- Open Access Journal database for high visibility and promotion of your articles.
- Open Access Journal (No Subscription required to download Papers)
- Strict Plagiarism Policy
- IRJET provides Free Soft Copy of Certificate of Publication to each Authors.
- IRJET provides Hardcopy Certificate of Publication to each Authors.
- Authors can submit the papers at any time by online submission.
- Authors can pay Accepted paper publication Fee online by Net Banking/ Credit Card/ Debit Cards/ UPI/ Mobile Payment/ Paypal,instantly in any day any time.

IRJET- Highlight's

ISO 9001:2008 CERTIFIED

OPEN Access JOURNAL

IRJET Impact Factor 7.529

Google Scholar

30,000+ Articles Published

ISSN INTERNATIONAL CENTRE e-ISSN: 2395-0056 p-ISSN: 2395-0072

Plagiarism checker X Technology Partner

IRJET Citation Report

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 05 Issue: 02 | Feb-2018 www.irjet.net p-ISSN: 2395-0072

Smart Guide – an approach to the Smart Museum using Android

Mr. Sagar Patil[1], Ms. Shraddha Limbekar[2], Ms. Amruta Mane[3], Ms. Netra Potnis[4]

[1,2,3,4] *Bharati Vidyapeeth's College of Engineering, Shivaji University, Kolhapur, Maharashtra, India*

Abstract - *Smart phones are increasingly being deployed by museums and other cultural spaces to provide guides for visitors, replacing dedicated audio guides. This paper introduces android application that recognizes the article which displays the information by scanning QR code near to the statue either in image, audio, video or in text format. Now a day, museums are available with QR codes to improve visitor's ability to access the information by scanning QR-Code with their own smart phone. The QR code was often positioned near or on the object label. On paper, this approach sounded simple, and many museums jumped on board with a positive outlook about the potential. Online approach for ticket booking for museum reduces paperwork and creates transparent system [3]. While smart phones are well equipped for outdoor as well as indoor tasks. This provides a guidance task in museum. Since smart phones and wireless Internet connection became ubiquitous in the last years, location based interaction, supported via the Global Positioning System (GPS) or Wi-Fi identification became a standard pattern for mobile phone usage. This enabled a variety of context aware applications, which now constitute a considerable part of phone apps, e.g. a dynamic Tourist Guide.*

***Key Words*: Android, Smart ticket, QR Code, Museum Guidance Application.**

1. INTRODUCTION

Museums are more important public spaces in the society. But, the importance of how visitors see internal structure of the museum and determines what visitors will see, where they focus their attention and ultimately what they learn and experience. Museums and other cultural spaces (such as archaeological sites, art galleries, castles, temples, historic churches and so on) are constantly looking for ways to improve visitors' experiences and very interested in the latest technological developments. The ongoing changes deployed by museums have consistently proved that it always driven by spaces, from display technologies to mobile guides with audio, then multimedia tools on different devices as well as introduction of apps for smart phones, and many more increasingly sophisticated developments. [3]

Cultural spaces are beginning to encourage their visitors to use their own smart phones rather than renting dedicated mobile audio or multi media guides. This saves the organization the cost of purchasing and maintaining their own supply of dedicated audio guides, as well as other related costs such as staff and the space required for renting out and returning the guides. Visitors also benefit, they will get correct information about article in their own language in any format.

Instead of paying with cash, cheque, or credit cards, a consumer can use a mobile phone to pay for ticket of a museum. Mobile tickets reduce the production and distribution costs connected with traditional paper-based ticketing channels and increase customer convenience by providing new and simple ways to purchase tickets.

2. Literature Review

An application which records user's personal information when the user downloads this application, keeps track of the user while it is run, recognizes the structure when the user takes a picture of it, displays the picture along with a text showing some useful information about the structure, and plays a video that is closely related to the structure. It also displays a multimedia content relative to the object in the photo when the smart phone user takes a picture of an article on exhibition in a museum and also displays educational contents relevant to the object in the photo when a child in a museum or a park takes a picture with a smart phone. A mobile application that figures out the appropriate key words representing objects in the photo when the user takes a picture of a landmark and retrieves images from open image databases with the key words to display them on the smart phone is introduced. However, none of them plays videos. One of the unique features of our application is that it plays a video which is closely related to the architecture when a user takes a picture of it. In order to make it play a video, we have to install a streaming server. Another unique feature is the way of identifying the architecture in the picture taken by the user. All the existing applications use an image recognition technique to identify objects in a photo. An image analysis process is time consuming. Hence, we are introducing QR code technique to display information about article present in that museum. Visitor will scan the QR code near to the article and get information in any format in any language. [1]

Many modern museum systems are developed under client/server infrastructure to reduce the computation burden of the mobile device. However time consuming resulting from data communications is a main drawback of these systems. In this paper, it describes an AR based museum guide system, which was implemented on an ultra mobile PC equipped with a conventional USB webcam. Visitors only need to take a picture of the exhibits that they are interested, intuitive multimedia information of these exhibits will display on their handhold mobile device's


IJARSE
ISSN 2319 – 8354
Impact Factor 6.1
INTERNATIONAL JOURNAL OF ADVANCE RESEARCH IN SCIENCE AND ENGINEERING
(An international refereed electronic And Print journal)
P-ISSN 2319-8346
E-ISSN 2319-8354
Call For Papers
Editorial Advisory Board
Writing tips
International Journal
Genetics Journal
Genetics
HOME@IJARSE
About Us
Home
Aim & Scope
FIND ISSUES
Current Issue
Past Issues
EMAIL: PAPAERPUBLICATION2020@GMAIL.COM
IJARSE: International Journal of Advance Research in Science and Engineering
Welcome to International Journal of Advance Research in Science and Engineering (IJARSE).
It is an International Journal of Advance Research in Science and Engineering in English published monthly. IJARSE will cater to needs of all those researchers and academicians looking forward to contribute through their knowledge, skills and abilities in the field of engineering & science for International Journal. To
Journal's Updates
For Award Ceremony :
www.iardo.com
Publication Process:
After Peer Review Process only original papers will be published
For International Conference:
www.conferenceworld.in

International Journal of Advance Research in Science and Engineering
Volume No.07, Special Issue No.01, March 2018
www.ijarse.com
IJARSE
ISSN: 2319-8354

GROCEROUS: A WEB BASED SOLUTION FOR DAILY GROCERY NEEDS

Avinash Thakur[1], Pushkraj Jadhav[2], Rushikesh Konapure[3], Prathamesh Mandhare[4], Prof. Sagar Patil[5]

[1,2,3,4] *Department of Computer Science and Engineering, Bharati Vidyapeeth's College of Engineering Kolhapur, Maharashtra, India.*

[5] *Asst. Prof., Department of Computer Science and Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India.*

ABSTRACT

This paper helps in presenting a great method to provide ease in online shopping and the sense of security in sense of money as well as for customer satisfaction while shopping offline. This paper is all about providing a human-centred approach for designing a ubiquitous computing system which aims at providing a better experience for shoppers at a supermarket and a comfortable way for a stress-free shopping experience, which reduces the problems involved in the usual way of shopping for both the customer and the retailer. The implementation is also provided with a user scenario in each phase which successfully contributed to the system design by giving a clear picture of user experiences. Along with this the customer would be informed about the best on-going offers in the shop. Different modes of payments are also available.

Keywords- Android, Ecommerce, Grocery, Market Place, Multi-vendor.

I. INTRODUCTION

At the current situation shopping is stressful and no comfort and ease involved in it. There are various factors to keep in mind when it comes to traditional way of shopping such as products search, billing and payment and most importantly searching for a good shop. This android application is developed in such a way that it can provide an interactive user environment and enhance the shopping experience. The recent development in Technological has provided and still developing to provide solutions to various departments and has resulted into a safe and comfortable environment to live in. When it comes to big supermarket, Concept stores like the Wal-Mart or Dmart which uses radio frequency identification tags (RFID), stores also have integrated self-checkout points to speed up the paying process while others integrate barcode scanners either at a common section or in separate shopping trolleys. Android is an operating system developed for smartphones and tablets. It is based on Linux kernel and uses Dalvik Virtual Machine (DVM) for executing Java byte code [1].

The technology keeps improving in the smart phones. From the last few years, the mobile phones capabilities have been improved rapidly. Mobile phones are multiprocessing so they can work fast as a computer [2]. With

International Journal of Advance Research in Science and Engineering
Volume No.07, Special Issue No.01, March 2018
www.ijarse.com
IJARSE
ISSN: 2319-8354

A STEP TOWARDS SMART MUSEUM USING SMART CAMPUS GUIDE

Mr. Sagar B. Patil[1], Ms. Jayashri Nivrutti Jadhav[2], Ms. Vidya Raghunath Patil[3]

[3](U.G. Student)

[1,2]Department of Computer Science and Engineering,
Bharati Vidyapeeth's College of Engineering, Kolhapur , (India)

ABSTRACT

This paper introduces an Android application (Smart Campus Guide) that recognizes the structure (a building and a statue, e.g. Museum) in which a user is interested and displays useful information about the museum. The new technologies introducing the Internet of Things allow to provide advanced services to the users. This application records user's personal information when the user downloads this application, keeps track of the user while it is run, recognizes the structure when the user takes a picture of it, displays the picture along with a text ,audio and image showing some useful information about the structure, and plays a video which is closely related to the structure. This paper also introduces our design and implementation of the application in detail. The techniques introduced in this paper can be used in mobile are location based services, IoT based services and QR code scanning. The system has been designed to be easily extensible to other IoT technologies and its effectiveness has been evaluated in the museum. In this system we are also implementing online ticket booking and online transactions.

Keywords*: *IoT based, Location-Based, Mobile application, QR code scanning,database.

I.INTRODUCTION

Art and Culture are always played an important role in human beings live. Over the centuries, hundred of museums and art galleries have preserved historical cultural heritage and served as important sources of education and learning. Museums are nowadays point of interest for human beings such as theatres or cinemas. Visits at museums are often considered boring, because it is hard for museums curators to catch the attention of tourists. Interests may vary from person to person. Interests are different from children to adults, students group from single visitor, casual visitor to fond-visitor. Therefore, interactive and personalized museum tours need to be developed. In this perspective, a significant contribution can be given by the next Internet of Things (IoT), which involves the extension of the Internet to small and lowcost "things" that are thought to realize smart environments in order to provide new services to the users.[12]

As the electronic techniques are advance computing machines have been miniaturized and smart phones are developed with powerful processors and large memories. Nowadays, various services become available on


IJLERA
www.ijlera.com
Home
About Us
Call for paper
Issues
Paper Submission
Authors
Downloads
FAQs
Contact Us
International Journal of Latest Engineering Research and Applications
ISSN: 2455-7137
Impact Factor: 2.105 (Computed By I2OR)
Pointing Your Research To Right Direction....

International Journal of Latest Engineering Research and Applications (IJLERA) ISSN: 2455-7137

Volume – 03, Issue – 04, April 2018, PP – 55-58

Expert Non-Expert Classifier

NishantVhatkar[1], Tejas Mudholkar[2], Prathamesh Nadgouda[3], Aishwarya Patil[4], Prof. Sagar Patil[5]

[1](Computer science, Bharati vidyapeeth/ Shivaji University, India)
[2](Computer science, Bharati vidyapeeth/ Shivaji University, India)
[3](Computer science, Bharati vidyapeeth/ Shivaji University, India)
[4](Computer science, Bharati vidyapeeth/ Shivaji University, India)
[5](Computer science, Bharati vidyapeeth/ Shivaji University, India)

Abstract: Now a day's use of Question Answering (QA) sites is increasing rapidlyit provides all the possible answers by faculty experts. Stack overflow, Quora, yahoo, Super User etc. are some QA sites providing great service in QA. Quora is one of the popularsite where users ask some questions and the other users answer them. The quality of answer is checked by using the upvote and downvote. Unfortunately, some users avoid voting there or use wrong vote that will not help user to find **better** answers. To fill the gaps, in this existing system we (1) analyze properties & features of experts and non-experts on some. popular topics; (2) Then that features are tested by using Linguistics rules which differentiate the experts and non-expert on some marking and (3) develop statistical models based on the features to automatically detect experts. Our experimental results show that our module identify experts in general topics and a specific topic.

Keywords: liws, random forest, web crawler

I. INTRODUCTION

As increase in users of QA sites the answer giving people also increased. Quora is one of the question answer site which is different than other sites. In this site user can follow topics in which he has interest and has some knowledge and can follow some user which will help us to find the answers of Queries the ask on site. To find the quality of answer there is a upwoting and downwoting policy which will help them to find which answer is better one.

Generally, the answering people are the experts which are always active which give the proper answer, which update his answer according to questions requirement regularly, which have more followers, which have great knowledge of the topics he followed.

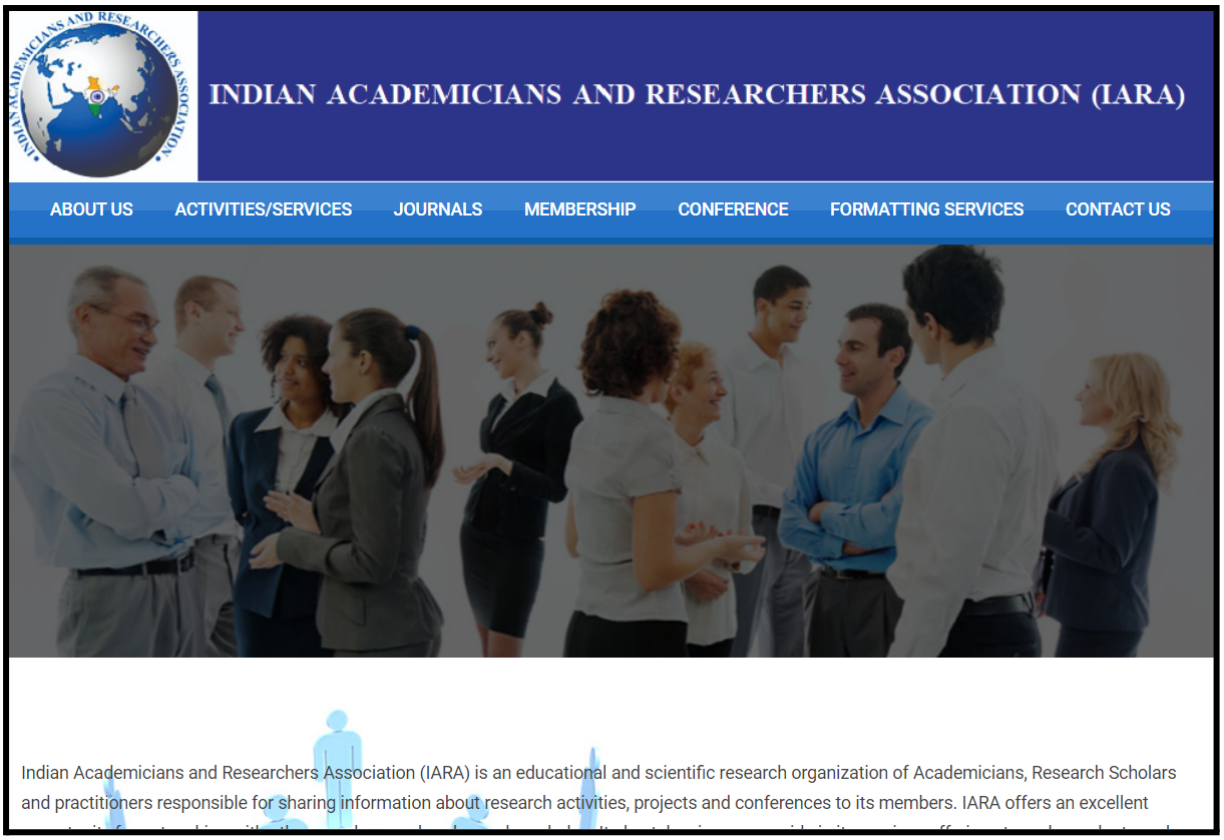
In the previous system that upwoting and downvoting may lead to wrong guidance as some user are not aware of that policy and some don't used to participate in voting. Hence only that voting is not helpful to decide which one is expert and which one is non expert.

As Q&A sites have become popular, people have desire to quickly identify experts in general topics or a specific topic. New users are not familiar with the community, but they want to find experts who could give them relevant answers. Also, expert finding can be used for an expert recommendation service in a social Q&A site.

In our paper we tried to find answers of some questions like do experts and non-expert behave different? Do they change behavior according to time? Can we detect best answer automatically? Can we differentiate experts and non-experts in general and specific topic? For that wedo the following things.

- As Quora don't provided their official API we have to parse that site by creating crawler.
- Analysis them.
- Create dictionaries of LIWS Words
- Write algorithm which will classifyexpert and non-expert for unknown user.

To analyse behaviours of experts and non-experts on Quora, the first step is to collect user information. As mentioned earlier since there is no publicly available official APIs, we developed our own crawler which collected user information on Quora.Our crawling strategy is to first manually given some users answers URL. Crawler contains the answers and their features. As shown in Fig (1) user profile contain their personal information, followers, following, answers given, posts, questions asked, Blogs etc. By running our crawler we collect information of some user. First database contains answers of the users second database contain there features. In this way we just cleanthe data and pick the required data only.


INDIAN ACADEMICIANS AND RESEARCHERS ASSOCIATION (IARA)
ABOUT US
ACTIVITIES/SERVICES
JOURNALS
MEMBERSHIP
CONFERENCE
FORMATTING SERVICES
CONTACT US
Indian Academicians and Researchers Association (IARA) is an educational and scientific research organization of Academicians, Research Scholars and practitioners responsible for sharing information about research activities, projects and conferences to its members. IARA offers an excellent

International Journal of Advance and Innovative Research
Volume 6, Issue 1 (IX): January - March, 2019
ISSN 2394 - 7780

RESPONSIVENESS OF HEIS TO INDUSTRIAL REVOLUTION 4.0

Jayamala K. Patil[1], Vijay R. Ghorpade[2], Veeresh P. M.[3]
Associate Professor[1], Principal & Professor[2] and Assistant Professor[3]
Bharati Vidyapeeth's College of Engineering, Kolhapur

ABSTRACT
Higher Education (HE) is the integral part of developed and developing countries. HE ensures world about well trained, skilled and creative manpower. There is direct relation of revolution in industry and Higher Educational Institutes (HEIs) as graduates contributes in new innovative technologies by means of research, development, testing and servicing. Hence, it is the responsibility of HEIs to mold itself in terms of resources, curriculum, teaching learning mechanism, assessment tools, students skill development, lifelong learning strategies, interaction with stake holders etc. This paper puts light on some of these aspects where HEIs which are affiliated to universities has to respond immediately as a response to advancements in Industrial Revolution 4.0.

1. INTRODUCTION

Any revolution is indication of liveliness in that field. World has observed three industrial revolutions and experienced magic of it in industrial production and in turn on livelihood of all livings. The first industrial revolution is derived by Newton's laws of motion which made it possible to design steam engines that atomized much of the work done by humans and made humans more productive (Bo Xing and Tshilidzi Marwala 2018, p.1; Nancy W. Gleason 2018, p.2). The second industrial revolution which is recognized as electric generation has a impact of Faraday and Maxwell's theory of magnetic and electric forces. The discovery of transistor given birth to third industrial revolution which is known as electronic generation. It gifted world with Computers and Internet. Fourth industrial revolution named 'Industry 4.0' started in early 2000s with Germany's manufacturing industry. This has the power to change many things across a broad spectrum. It will transform industries to a large extent such that much of the work that exists today will not exists in next 50 years. According to survey by Deloitte and Forbes Insights, in Industry 4.0 revolution the daily lives will be full of smart technologies as an effect of revolution in digital and physical technological world. Though it will create vast possibilities and opportunities; it will also create uncertainty. According to opinion of Chun-Yuan Gu, in this revolution the knowledge, which takes an organization decades to gain, becomes more accessible to new organizations with less experience and with the right technology (Deloitte and Forbes Insights 2018, p.22).

The education sector will not stand apart from this advancement of Industry 4.0. This may introduce new requirements for the profile and qualification of graduates. It may demand even more than before, people's capacity for initiative, entrepreneurship skills, digital literacy, critical thinking and ability to define personal learning needs and identify possible sources for such learning. To produce such graduates and to cope up with requirements for the same is now a most demandable task for HEIs. HEIs has focus on meeting different needs and requirements of various target groups. But to produce the graduates of above qualities, HEIs has to be flexible and always there is space for a well profiled, professional HEIs to introduce such flexibilities. New patterns and tools of learning as well as assessment may be introduced to produce more flexibility. It may need a substantial shift in curricula development. The HEIs has to transform from "school" to a "hub" connecting various stakeholders within their community, allowing suitable provisions for combination of teaching, learning, research and knowledge exchange involving partners and collaborators from outside education (Alexandre Wipf 2017, P.7). While all higher education institutions will put some focus on meeting the digitalization agenda, there was a shared belief that professional higher education should still find suitable approaches to address different target groups needing more profession-specific skills and competences. At the same time, the prevailing expectation is that the digitalization agenda will enhance the opportunities for internationalization and opening new markets for those who will be ready.

The rest of the paper is organized as follow: second section summarizes the response of HEIs to first 3 industrial revolutions, third section briefs the responsiveness of HEIs to Industrial Revolution 4.0 and fourth section presents conclusion.

2. RESPONSIVENESS OF HEIS TO FIRST THREE INDUSTRIAL REVOLUTIONS

The first industrial revolution based on steam engines brought a dramatic shift in the classical education. A curriculum with more diverse degree options and new general education programs designed to produce breadth of study through the selection from a variety of elective courses. The second industrial revolution intended to open the industrial classes in education system to create newly trained technicians and engineers. In third


International Journal For
Research & Development in Technology
Dedicated to Excellence
(ISSN (O):- 2349-3585)
IJRDT
Submit
Home
About Us
Policy
Authors
Reviewer
Archives
FAQs
Contact Us
Advance Search
slideshare
Present Yourself
.docstoc
Slide3
Pubicon
Science Index
CiteFactor
Academic Scientific Journals
Scholarly Open Access
JOUR
INFORMATICS
High Impact Factor
Impact Factor
6.88
Call For Paper
(Vol.18,Issue-6,Dec-2022)
Submit Manuscript
Google
Author Guide
Paper template
Copyright Form

INTERNATIONAL JOURNAL FOR RESEARCH & DEVELOPMENT IN TECHNOLOGY

Volume-9,Issue-5(May-18)
ISSN (O) :- 2349-3585

BRIDGE CONDITION MONITORING SYSTEM USING ZIGBEE

Mrs.A.H.Tirmare[1], Ms P.S.Mali[2], Ms.S.S.Shinde3,Ms.PoojaPatil[4] ,Ms.Saloni Lad[5], Ms.ShrutiSalokhe[6]

Department of Electronics & Telecommunication Engineering, Department of General Science BharatiVidyapeeth's College of Engineering, Kolhapur , India

Abstract – Now a day's lot of accidents occur due to ageing & poor condition of bridge all around the world. The conditions of the bridges are not monitored on a daily basis also it is difficult to monitor the conditions of all the bridges manually. This results in lack of maintenance of the bridge which can be dangerous for everyone and lead to a lot of accidents. However regardless the advancement of sensors and sensor data processing technologies, there is a one thing that has not been changed, data communication is through wire and optical cables. The advancement in wireless technology has lead to develop the wireless network based bridge monitoring system. So this paper focuses on implementation of atomized monitoring and controlling system for bridge using various sensors and zigbee.

I.INTRODUCTION

Bridge condition monitoring system is an atomized monitoring system used to monitor the condition of bridge in real time.

This project gives a best solution to above mentioned problems as in manual system work is time consuming and need more manpower.

This type of automated system will be more reliable due to immediate sensing of bridged condition and due to remote monitoring. A centralized unit in a city can sense condition of number of bridges in a city and necessary action can be initiated in order to reduce accidents due to damage of bridges.

This system contains various sensors in order to sense parameters of bridges like bend, tilt, water level etc. Depending on the parameters and if there is a danger then the gate of the bridge will be closed. The DC motor is used to close or open the gate of the bridge.

II.BLOCK DIAGRAM DESCRIPTION

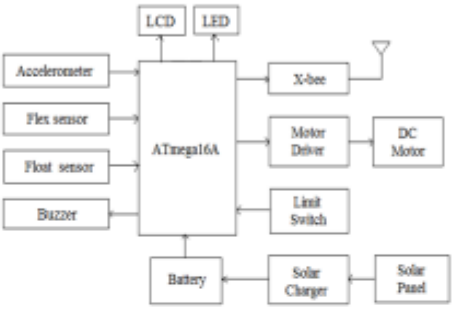


Fig 1. Block Diagram of Transmitter of bridge condition monitoring system

Fig 2. Block Diagram of Receiver of bridge condition monitoring system

The Block diagram of Transmitter of bridge condition monitoring system is shown in fig 1.This system consists of ATmega16A interfaced with sensors Accelerometer, Flex sensor, Float sensor to sense different parameters of bridge. Zigbee is used to transmit data from bridge to control station. Buzzer indicates fault in bridge parameters. Motor driver is used for opening & closing of gate. Solar panel is used to give supply to microcontroller. In this project solar power is used as power supply for microcontroller and DC motor. The accelerometer is a complete 3 axis sensing sensor which senses a change in the xyz direction. If there is a bend or a tilt in the bridge then the output voltage varies which is given to

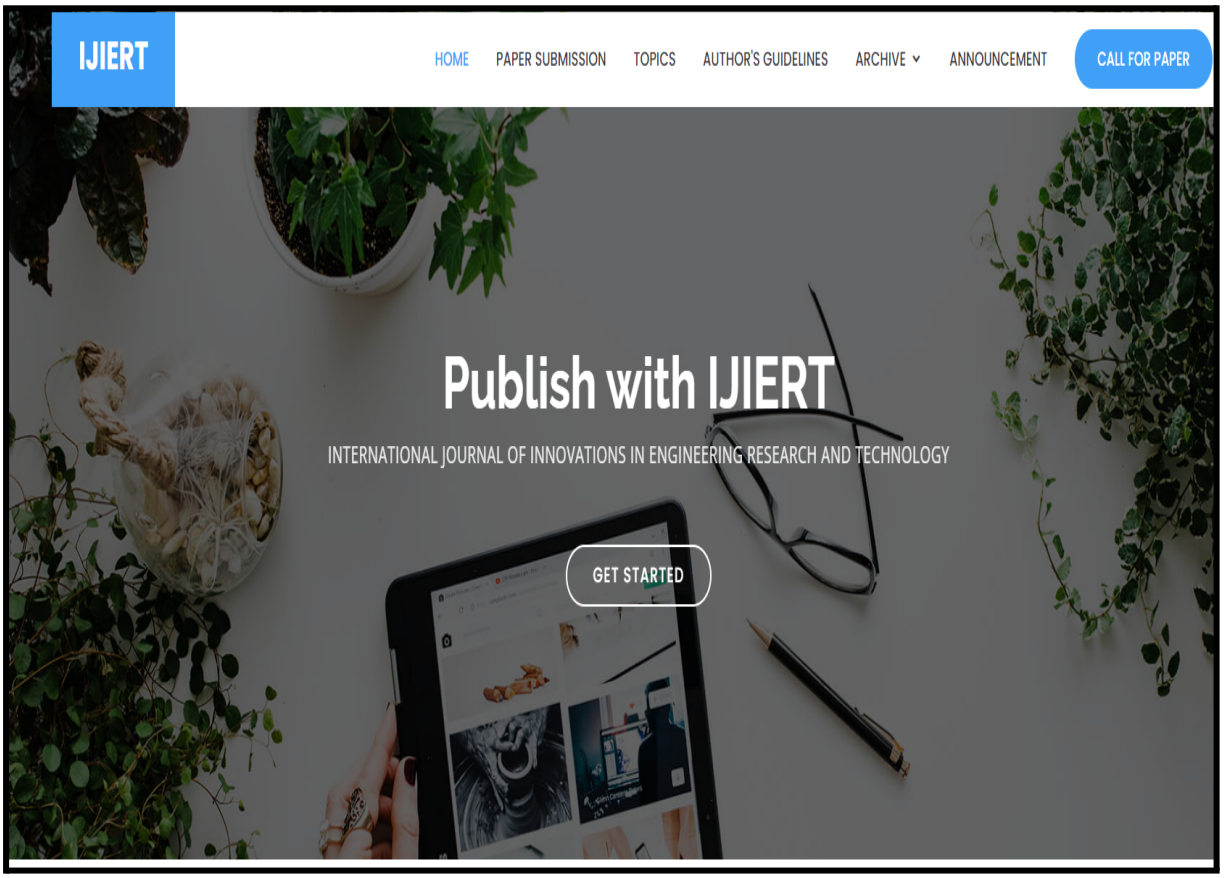
ICI World of Journals / **International Journal of Electrical, Electronics and Computer Science Engineering**

International Journal of Electrical, Electronics and Computer Science Engineering

English title:	International Journal of Electrical, Electronics and Computer Science Engineering
ISSN:	2348-2273 (online)
GICID:	*n/d*
DOI:	*n/d*
Website:	https://www.ijeecse.com/
Publisher:	*n/d*
Country:	IN
Language of publication:	EN

Deposited publications: 55 › Full text: 15% | Abstract: 100% | Keywords: 99% | References: 100%

Issues and contents


IJIERT
HOME
PAPER SUBMISSION
TOPICS
AUTHOR'S GUIDELINES
ARCHIVE
ANNOUNCEMENT
CALL FOR PAPER
Publish with IJIERT
INTERNATIONAL JOURNAL OF INNOVATIONS IN ENGINEERING RESEARCH AND TECHNOLOGY
GET STARTED

NOVATEUR PUBLICATIONS
INTERNATIONAL JOURNAL OF INNOVATIONS IN ENGINEERING RESEARCH AND TECHNOLOGY [IJIERT]
ISSN: 2394-3696
VOLUME 5, ISSUE 3, Mar.-2018

EARLY DETECTION OFHIGH BLOOD PRESSURE AND DIABETIC RETINOPATHY ON RETINAL FUNDUS IMAGES USING CBRIR BASED ON LIFTING WAVELETS

MRS. S.S.TADASARE
P.G. Student Department of Electronics and Telecommunication Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India

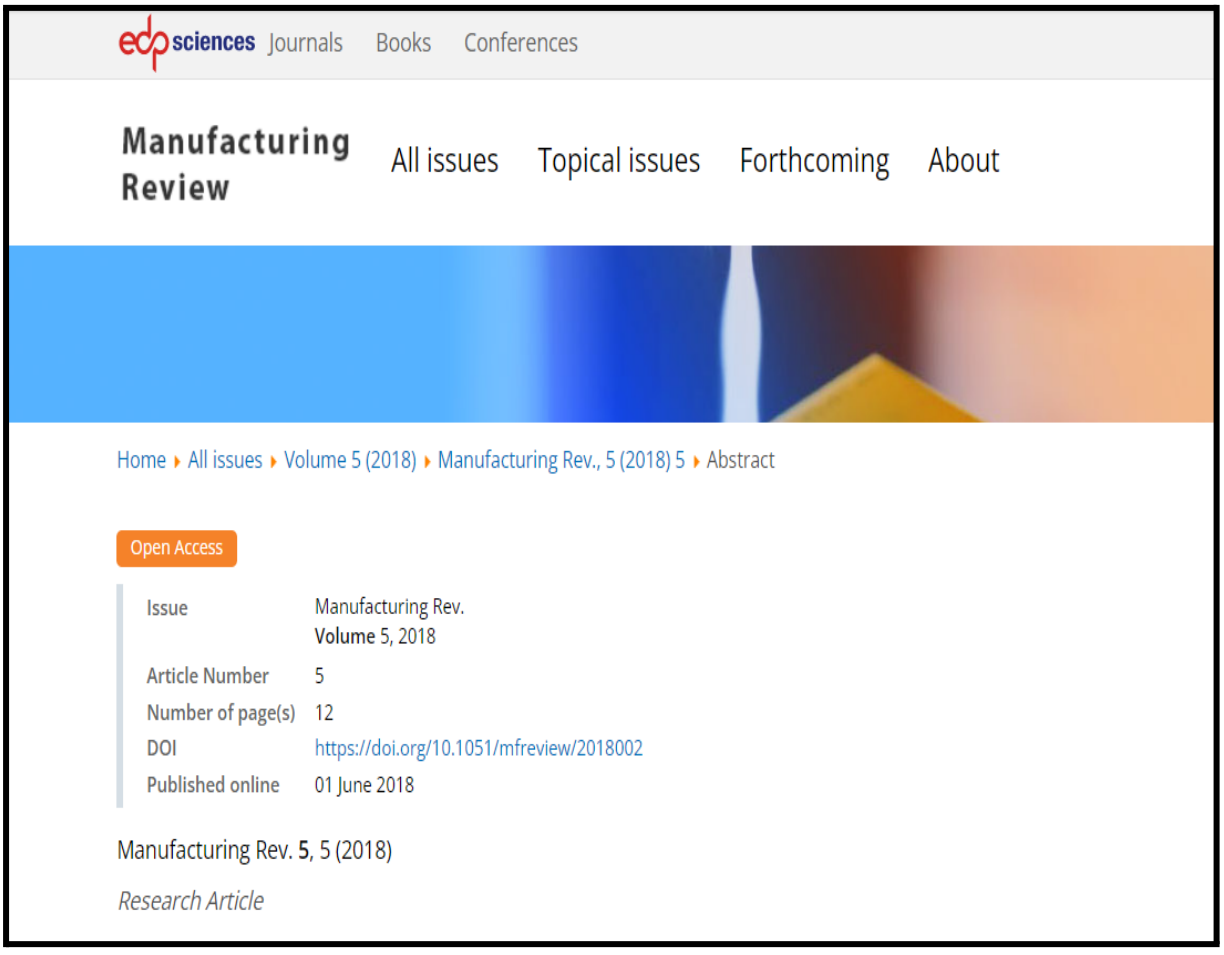
PROF. S. S. PAWAR
Assistant Professor Department of Electronics and Telecommunication Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India

ABSTRACT
We are presenting here a lifting wavelet based CBRIR image retrieval system in which system uses color and texture as features to describe the content of a retinal fundus images. Our contribution is of three directions. First, Lifting wavelets 9/7 for lossy and SPL5/3 for lossless to extract quality structures from arbitrary shaped retinal fundus regions separated from an image to which increases effectiveness of the system.This process is done which is offline before query processing, therefore to result a query our system ensures to searches the whole database images; instead just a number of same type of class of patient images are required to be searched for image similarity. Further, to upgrade the retrieval accuracy of our system, we were use the region based feature extraction of image, with global structures digs out from the images, which are texture using lifting wavelet and HSV color histograms. Our system implies which has benefit of increasing the retrieval exactness and reducing the retrieval interval. The experimental estimation of the system is based on a db1 online retinal fundus image database. From the investigational results, it is manifest that our system achieves ominously improved accuracy as compared with traditional wavelet based systems. In our simulation analysis, system gives a judgment between retrieval outcomes based on features dig out from the whole image using lossless 5/3 lifting wavelet and features extracted using lossless 9/7 lifting wavelet and using traditional wavelet. The results specifies that each type of feature is effective for a specific form of disease of retinal fundus images according to its semantic contents, and using lossless 5/3 lifting wavelet of them gives better retrieval results for all semantic classes and outperform 4-10% more accuracy than traditional wavelet

INDEX TERMS: Content Based Retinal Image Retrieval, Lifting wavelet, Exudates, Micro aneurysms, Haemorrhages and retina.

I. INTRODUCTION

Diabetes has become a well known of the soon increasing vigor threats worldwide [21]. Only in Finland, there are 30 000 people diagnosed to the name of tune 1 age of consent onset diabetes in the raw, and 200 000 people diagnosed to the quality 2 deceased autoimmune diabetes in adults [4]. In presentation, the avant-garde estimate predicts that there are 50 000 undiagnosed patients [4].Proper treatment of diabetes is cost effective since the implications of underprivileged or lifeless treatment are very expensive. In Finland, diabetes costs annually 505 million euros for the Finnish health service, and 90% of the shot in the arm cost arises from treating the complications of diabetes [5]. These facts put a good word for the design of expedient diagnosis methods for screening completely large populationsFundus image has an important role in diabetes monitoring since occurrences of retinal abnormalities are hack and their consequences serious. However, as the rivet the eyes on fundus is sensitive to vascular diseases, fundus imaging is also considered as a candidate for non-invasive screening. The accomplishment of this type of screening approach depends on accurate fundus image capture and by way of explanation on accurate and reliable image processing algorithms for detecting the abnormalities. Numerous algorithms are about for fundus image analysis by many research groups [13, 6, 25, 15, 18].
However, it is impossible to determine the accuracy and reliability of the approaches because there exists no


edp sciences Journals Books Conferences
Manufacturing Review
All issues Topical issues Forthcoming About
Home ▸ All issues ▸ Volume 5 (2018) ▸ Manufacturing Rev., 5 (2018) 5 ▸ Abstract
Open Access
Issue Manufacturing Rev.
Volume 5, 2018
Article Number 5
Number of page(s) 12
DOI https://doi.org/10.1051/mfreview/2018002
Published online 01 June 2018
Manufacturing Rev. 5, 5 (2018)
Research Article

Prediction of surface roughness and cutting force under MQL turning of AISI 4340 with nano fluid by using response surface methodology

Pralhad B. Patole[1*] and Vivek V. Kulkarni[2]

[1] Bharati Vidyapeeth College of Engineering, Kolhapur 416004, M.S, India

[2] Department of Mechanical Engineering, Sanjay Ghodawat Group of Institutions, College of Engineering, Atigre M.S, Kolhapur, India

* e-mail: pb.patole@rediffmail.com

Received: 30 October 2017 | **Accepted:** 18 January 2018

Abstract

This paper presents an investigation into the minimum quantity lubrication mode with nano fluid during turning of alloy steel AISI 4340 work piece material with the objective of experimental model in order to predict surface roughness and cutting force and analyze effect of process parameters on machinability. Full factorial design matrix was used for experimental plan. According to design of experiment surface roughness and cutting force were measured. The relationship between the response variables and the process parameters is determined through the response surface methodology, using a quadratic regression model. Results show how much surface roughness is mainly influenced by feed rate and cutting speed. The depth of cut exhibits maximum influence on cutting force components as compared to the feed rate and cutting speed. The values predicted from the model and experimental values are very close to each other.

Key words: MQL / nano fluid / surface roughness / cutting force / RSM

e-ISSN: 2395-0056 p-ISSN: 2395-0072

International Research Journal of Engineering and Technology

(An ISO 9001-2008 Certified Journal)
Fast Track Publications

Call for Paper : Dec 2022

Submission Last Date: 31-Dec

Review Status : In 1 week

Online Publication : In 3 Days

Initial Online submission
Author Guidelines
Processing Charges
Final Online Submission
ImpactFactor
Indexing
Citations
FAQ
Editorial Board
Topics Covered
Copyright Claims

rticle evaluation & publication is in process for the November Issue ***** This website will be up

International Research Journal of Engineering and Technology (IRJET) is an peer reviewed, open access, high Impact Factor,Multidisciplinary journal in English for the enhancement of research in various discipline of Engineering, Science and Technology. Prime Focus of the Journal is to publish articles related to the current trends of research . IRJET brings together Scientists, Academician, Engineers, Scholars and Students of Engineering Science and Technology.Published by Fast Track Publications.

Why Select IRJET?

- An ISO 9001:2008 Certified International Journal.
- Fast, Easy and Transparent paper publication process
- Low publication fee to promote the research work.
- IRJET Impact factor value : 7.529 for the year 2020 (Verify)
- IRJET is indexed in Google Scholar, academia.edu,Scribd, Slideshare & more..
- UGC Approved Journal in 2017
- IRJET is registered with Ministry of MSME, Govt. of India.
- Open Access Journal database for high visibility and promotion of your articles.
- Open Access Journal (No Subscription required to download Papers)
- Strict Plagiarism Policy
- IRJET provides Free Soft Copy of Certificate of Publication to each Authors.

IRJET- Highlight's

ISO 9001:2008 CERTIFIED

OPEN Access JOURNAL

IRJET Impact Factor 7.529

Google Scholar

30,000+ Articles Published

ISSN INTERNATIONAL CENTRE

Plagiarism checker

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 05 Issue: 11 | Nov 2018 www.irjet.net p-ISSN: 2395-0072

Modelling and Development of Chaff cutter machine

Prof. J.G. Shinde[1], Prof. S.V. Pandit[2], Prof. R.B. Lokapure[3], Prof. S.J. Kadam[3]

[1,2,3]Assistant Professor, Dept. of Mechanical Engineering, Bharati Vidyapeeth's College of Engg., India
[4]Associate Professor, Dept. of Mechanical Engineering, Bharati Vidyapeeth's College of Engg., India

---

Abstract - *A chaff cutter is a mechanical device for cutting straw or hay into small pieces before being mixed together with other forage and fed to horses and cattle. This aids the animal's digestion and prevents animals from rejecting any part of their food. Chaff and hay play a vital role in most agricultural production as it was used for feeding horses.*
Chaff cutters have evolved from the basic machines into commercial standard machines that can be driven at various speeds and can achieved various lengths of cuts of chaff with respect to animal preference type.

New chaff cutter machines include portable tractor driven chaff cutter - where chaff cutter can be in the field and load trolleys (if required).

Key Words: chaff, uniform chopping, fodder, cutter, machine.

1. INTRODUCTION

A chaff cutter is a mechanical device used to cut the straw or hay into small pieces so as to mix it together with other forage grass and fed to horses and cattle. This improves the animal's digestion and prevents animals from rejecting any part of their food. Chaff cutters have developed gradually from the simple machines to commercial standard machines that can be driven at various speeds so as to achieve various sizes of chaff with respect to animal preference type. New chaff cutter machines include portable tractor driven chaff cutters in which cutting of chaff is done in the field and loaded in trolleys. The present chaff cutter machine is less compact and having lack of safety and slow speed some compact machines having problem of blockage of grass. The population of cattle in India in 1987 was 199.7 million and in 2012, 199.9 million. Buffalo in 1987 -76.0 million but in 2012- 108.7 million. For such kind of population traditional human powered chaff cutting machines were used, but due to this the efforts for running the machine was physically demanding. And as per today's scenario the population of buffalos is drastically increased. So to increase the productivity and reduce the physical effort required for running the machine the motorized machineries came into existence it is best for dairy farmers. Presently fodder cutting machines are electric driven as well as hand operated or engine driven.

2. PROBLEM DETECTION IN CHAFF CUTTING PROCESS

The existing chaff cutting machines are observed and studied properly to detect the problems faced by the user are given below.

1. Bulky or less compact design
2. High voltage required such as 3 phase
3. Less safety while using by women
4. Noisy
5. Blockage of grass creates feed interference

By observing above limitations we manufactured and modified present chaff cutter.

2.1 Developed Work

1) New cutting technology – The research work in this domain was studied and new methods are developed to achieve desired goal.
2) Safety- Highest priority is given to safety. Because it is widely used by farmers and his family so it should be used by all of them with less skill.
3) Single phase operation – The power supplied to machine is single phase so to make it easy to operate at any location.
4) Noise- Less noise
5) Compact – Compact in design cause to install machine at limited place
6) Aesthetically pleasing and attractive design.

2.2 Procedure

1. Supply power source to electric motor- Here we are using single phase 2 H.P motor so we require single phase power supply. Input speed of our electric motor is 1425 rpm. In order to rotate chaff cutting blade we have to rotate them by using power drives.

2. Power transmission through belt-pulley drive which are mounted on shaft- For transmitting power we choose belt & pulley as power drive .This belt pulley arrangement is coupled to cutting blades by using coupling shaft. Hence rotation of cutting blades occur.

3. Feeding of food material - We feed fodder through hopper. As feed trough has large opening & high length this provides guide way to grass & other fodder material like dry corn straw, grass, soya bean, wheat stalk, with ease and thus reducing the manual work of farmer and increases the fodder production.

4. Collect fodder from output tube -After rotation of cutting blades, it causes cutting of supplied feed material like grass dry corn straw into powder form. This light weight particles thrown away by centrifugal force of cutting blade towards outlet tube .So, place container for collecting fodder.


ISSN (ONLINE) : 2321 0613
IJSRD
INTERNATIONAL JOURNAL FOR SCIENTIFIC RESEARCH & DEVELOPMENT
Research... ? Let's do it.
Home
Research Area
Editorial Board
Call for papers
For Authors
Conference
Archive
FAQs
Blog
Contact Us
Impact Factor : 4.396 NEW | Submit Manuscript Online NEW
CALL FOR PAPERS : Dec 2022
Important Dates
Submission Last Date
25-Dec-22
Submit Manuscript Online
ADVANCED SEARCH NEW!
NEWS & UPDATES
Hello Researcher, we are happy to announce that now you can check the status of your paper right from the website instead of calling us. We would request you to go and check your paper status on the below link :
http://www.ijsrd.com/CheckPaper
Hello Bloggers....
Hello Researchers, you can now keep in touch with recent developments in
FOR AUTHORS
Welcome to IJSRD (International Journal for Scientific Research and Development)
How to write a research paper? Need help? Click here
How to publish research paper? Check out? Click here
IJSRD
Call for Papers
Volume 10 - Issue 10 - Dec 2022
click here to submit manuscript online
IJSRD (International Journal for Scientific Research and Development) is a leading e-journal, under which we are encouraging and exploring newer ideas of current trends in Engineering and Science by publishing papers containing pure knowledge. The Journal is started with noble effort to help the researchers in their work and also to share knowledge and research ideas. All research interested scholars are given best opportunity to make world aware of their work. With precise and analytical narration of knowledge by our reviewers, our
IMPACT FACTOR
4.396
INDEXING
Academia.edu
Google Scholar
CONNECT
LICENSE

Study of Steam Operated Jaggery Making System

Mr. P. D. Rajigare Mr. M. S. Shinge Mr. V. T. Didake Mr. K.K. Patil Mr. R.S.Mithari
[1,2,3,4,5]Assistant Professor
[1,2,3,4,5]B.V.C.O.E. Kolhapur, India

Abstract— In rural India bagasse is used as fuel for production of jaggery. There is big loss of heat as well as ash from it may be mixed with product which reduces its purity.so we need to check clean and more efficient process for jaggery. We have iterative study for different modes of jaggery making pan which uses steam as heating element. Here we discussed about the pan with steam coil immersed in sugarcane juice. Its design and comparison with pan with baffles is made.

Key words: Jaggery, Sugarcane Juice

I. Introduction

Jaggery is natural, traditional, sweetener made from sugarcane juice. It consumes 20.36% of sugarcane grown in India [5]. Jaggery is product of cottage industries prone to production inconsistencies and inefficiencies, use of chemicals, poor hygiene and quality. In present system of jaggery making there are problems in crushing, filtration, heating, packing. Heating system affects quality, productivity & production cost so there is needed to improve heating system.

II. Study of Jaggery Making System

In available heating system bagasse is used. This system requires heating chamber & 45% heat is required for making jaggery. Out of 45% heat from bagasse is used as

- 6% required in present temperature from 27°to 99°.
- 39% heat is required for removal of water in the form of steam.
- 0.1% to change liquid to solid jiggery

We have scope to reduce 55% heat losses due to bagasse system by the use of steam.5.39% of heat of 45%heat from bagasse is required to remove water or steam from juice & we can reuse this steam for heating the juice.

The temperature(degree celcious) vs time (minutes) graph for jaggery making process is as shown in fig.1 within this process different additives to be added and ash with impurities is to be removed. This process is given in table1.

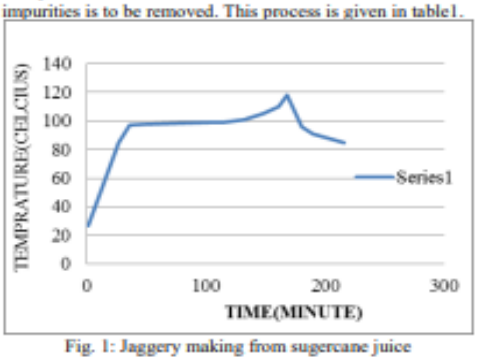


Fig. 1: Jaggery making from sugercane juice

Temperature	Add additives
27-85 (27min)	Okra powder
85-97(9 min)	First ash(Dhor mali)
85-97(12min.)	Use of acid
98-99(54min)	Boiling of syrup
99-101(12min)	Second ash(sonmali)
101-105(16min)	Splitting of syrup
105-118(20 min)	Solid jaggery

Table 1: Time for each process and addition of additives and removal of ash

III. Design of Pan

Properties of steam:-

- Pressure of steam= 1.962 N/m²
- Temperature of steam= 120°C
- Specific enthalpy of steam =2201.6KJ/Kg

Properties of sugarcane juice:-

- Temperature range= 378k to 391k
- Thermal conductivity = 0.475 to 0.493 w/mk
- Density= 1044.5 to 1189.5 Kg/m³
- Specific heat at constant pressure = 3.67 KJ/Kg k

Processes	Temperature ℃	Time in Minute	Total Mass Flow Rate in KJ	Steam Flow Rate in Kg	Steam Flow Rate per Hour Kg/hr
1	27-85	27	851.44	0.387	0.86
2	85-97	9	158.54	0.071	0.4733
3	85-97	12	689.26	0.0305	1.525
4	98-99	54	2720.37	1.20	1.33
5	99-101	12	1142.91	0.50	2.5
6	101-105	16	1376.17	0.60	2.28
7	105-118	20	1498.80	0.66	1.98
Total	-	148	8437.49	3.723	10.9483

Table 2: Calculation of mass flow rate of steam & energy requirement

Pan is designed on basis of total heat required to the system by considering parallel flow type of heat exchanger. It gives

U = Overall Heat Transfer Coefficient= 410
D= Diameter of Pan = 0.40 m
L= Length of Tube=3.18m
A = Area of Pan=0.126 m²

We take trail for jaggery making on this pan having coils of steam pipe. The readings of this trail are as follows-

e-ISSN: 2395-0056 p-ISSN: 2395-0072

International Research Journal of Engineering and Technology

(An ISO 9001-2008 Certified Journal)

Fast Track Publications

Home | About Us | Current Issue | Past Issue | Archives | For Authors | Contact Us | Pay Online | FAQ

Call for Paper : Dec 2022

Submission Last Date: 31-Dec

Review Status : In 1 week

Online Publication : In 3 Days

- Initial Online submission
- Author Guidelines
- Processing Charges
- Final Online Submission
- ImpactFactor
- Indexing
- Citations
- FAQ
- Editorial Board
- Topics Covered
- Copyright Claims

Current News & Updates

Current Update: Article evaluation & publication is in process for the November

International Research Journal of Engineering and Technology (IRJET) is an peer reviewed, open access, high Impact Factor,Multidisciplinary journal in English for the enhancement of research in various discipline of Engineering, Science and Technology. Prime Focus of the Journal is to publish articles related to the current trends of research . IRJET brings together Scientists, Academician, Engineers, Scholars and Students of Engineering Science and Technology.Published by Fast Track Publications.

Why Select IRJET?

- An ISO 9001:2008 Certified International Journal.
- Fast, Easy and Transparent paper publication process
- Low publication fee to promote the research work.
- IRJET Impact factor value : 7.529 for the year 2020 (Verify)
- IRJET is indexed in Google Scholar, academia.edu,Scribd, Slideshare & more..
- UGC Approved Journal in 2017
- IRJET is registered with Ministry of MSME, Govt. of India.
- Open Access Journal database for high visibility and promotion of your articles.
- Open Access Journal (No Subscription required to download Papers)
- Strict Plagiarism Policy
- IRJET provides Free Soft Copy of Certificate of Publication to each Authors.
- IRJET provides Hardcopy Certificate of Publication to each Authors.
- Authors can submit the papers at any time by online submission.
- Authors can pay Accepted paper publication Fee online by Net Banking / Credit Card /

IRJET- Highlight's

ISO 9001:2008 CERTIFIED

OPEN Access JOURNAL

IRJET Impact Factor 7.529

Google Scholar

30,000+ Articles Published

ISSN INTERNATIONAL CENTRE

Plagiarism checker

Technology Partner

IRJET Citation Report

International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 05 Issue: 10 | Oct 2018 www.irjet.net p-ISSN: 2395-0072

DEVELOPMENT OF GROUNDNUT POD SEPARATOR

Suyash B.Kamble[1], Avinash R. Kharat[2], Amol A.Nannikar[3]

[1,2]Assistant Professor, Mechanical Engineering, BVCOE, Kolhapur, Maharashtra, India
[3]Assistant Professor, Mechanical Engineering, PVPIT, Budhgaon, Maharashtra, India

---

Abstract - *In India, Agriculture is the backbone. In country like India, groundnut is grown on a small scale by farmer. The major problem in groundnut production in country like India is the lack of groundnut processing machines available to farmers. In the beginning the groundnut pods were separated from its plants by the workers. They simply remove groundnut pods by their hands and separate from the plants. The output got from this method, was very low because it was very time consuming process. It was also a boring work for the worker. Traditional method of separating pods from groundnuts plants by hands. That the traditional method is not a sufficient method for separating the groundnut pods. Due to this manual process, identify some major problem & to over-come this problems some idea or concepts generates.*

Key Words: Farmer, Pod separation, Traditional method of pod separation, Manual pod separation, Automatic pod separation

1. INTRODUCTION

Fig.1 Groundnut Pods Plant

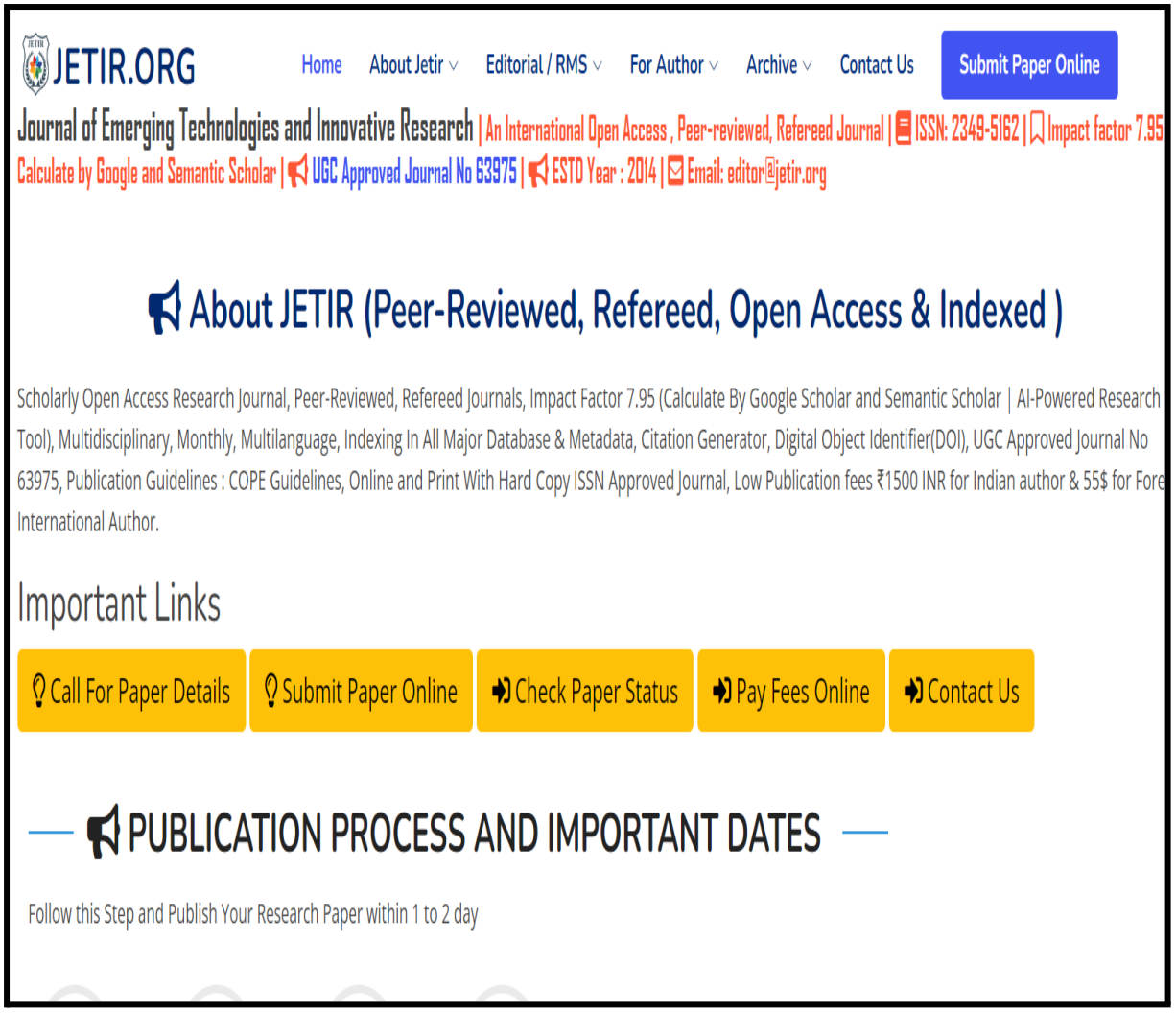
Groundnut is the sixth most important oilseed crop in the world. The production of groundnut is concentrated in Asia and Africa (56% and 40% of the global area and 68% and 25% of the global production, respectively). India is an agricultural based country. Since last 50 year's lot of changes has been occurred in agriculture sector. Many new agricultural based industries have been started new varieties and species of plant have been discovered. In our country most of the people can be depend on the agriculture sector/field.

The Groundnut is one of the major seed crop. This product in the cultivated in abundant quantity. There is lot of time waste in old method of groundnut pod separating. The time required for 1 Kg of groundnut pod separating from this groundnut is about 1/2 to 1 hour. So we have produces new machine for fast groundnut pod separating. The traditional manner of stripping groundnut pods is by removing by fingers or hitting the bunch of nuts with rods. Both the traditional methods cause injuries to the fingers of farm women and damage of nuts which can then be used only for oil expelling purposes. Stripping of groundnut in this manner needs 30 women labour per acre and it is tedious to the farm women. The fields need to be made wet the previous day with scant irrigation, so that the soil becomes loose and the plants along with the pods can be pulled out easily from the soil. Once plucked, the pods need to be stripped from the shell. Stripping the pods is a traditional practice done either by removing the pods manually or hitting the bunch with the help of rods.

2. LITERATURE REVIEW

As per Mr. Arjun Vishwakarma, Tejas Tandale, Prof R. H. Kekan who mainly focused on the design and development of a groundnut pod separating machine electrically powered by a 1hp motor. In the beginning the Groundnut pods were separated from its crop by the workers. The output got from this method, was very low and it does not fulfill the market demand because it was very time consuming process. Our project mainly consists of robotic arm and spiked rotating drum. Robotic arm will pluck out the groundnut crop and feed it on the spiked rotating drum. Spikes on rotating drum will separate the pods from ground crop. There are big Groundnut Harvesters available in market, but farmers having small farm area can't afford that harvester. Our machine is small, lightweight, and low in cost. Farmers having small farm area can afford and use our machine. [1]
According to Mr. Deshmukh Shubham, Mr. Giramkar Harshawardhan, Mr Kadam Bharat, Mr. Jedhe Shubham, Mr. Adhapure D.U. says in their paper about the design and fabrication of a groundnut shelling and separating machine electrically powered by a 1hp motor. The machine has the capacity of shelling 400kg of groundnut per hour with a shelling and separating efficiencies of 95.25% and 91.67% respectively. The machine was fabricated from locally sourced materials, which makes it cheap and easily affordable and also easy and cheaper to maintain. It is also of light weight and comprises of the hopper, crushing chamber, separation chamber and the blower unit. During the process of testing, it was observed that majority of the groundnut pods that came out unshelled or partially shelled were the ones with one seed per pod and those with two small seeds in their pods. [2]

As per Mr.Sanjay Patil, Harshkumar Jain, Jayshree Raut, Tushar Kalikate,Viraj Gandhi Chaff cutter is hay or straw cutting machine which is used in uniform chopping of the fodder for livestock or raw material to agro industries.


JETIR.ORG
Home
About Jetir
Editorial / RMS
For Author
Archive
Contact Us
Submit Paper Online
Journal of Emerging Technologies and Innovative Research | An International Open Access , Peer-reviewed, Refereed Journal | ISSN: 2349-5162 | Impact factor 7.95
Calculate by Google and Semantic Scholar | UGC Approved Journal No 63975 | ESTD Year : 2014 | Email: editor@jetir.org
About JETIR (Peer-Reviewed, Refereed, Open Access & Indexed)
Scholarly Open Access Research Journal, Peer-Reviewed, Refereed Journals, Impact Factor 7.95 (Calculate By Google Scholar and Semantic Scholar | AI-Powered Research Tool), Multidisciplinary, Monthly, Multilanguage, Indexing In All Major Database & Metadata, Citation Generator, Digital Object Identifier(DOI), UGC Approved Journal No 63975, Publication Guidelines : COPE Guidelines, Online and Print With Hard Copy ISSN Approved Journal, Low Publication fees ₹1500 INR for Indian author & 55$ for Fore International Author.
Important Links
Call For Paper Details
Submit Paper Online
Check Paper Status
Pay Fees Online
Contact Us
PUBLICATION PROCESS AND IMPORTANT DATES
Follow this Step and Publish Your Research Paper within 1 to 2 day

CIRCULAR ECONOMY AND FOOD WASTE

Ms. N. S. Misal [1], Ms. G .S. Ghorpade [2]
[1]Assistant Professor, Civil Engg. Department - D.Y. Patil College of Engineering & Technology, Kolhapur,
[2]Assistant Professor, General Engg. Department - Bharati Vidyapeeth's College of Engineering, Kolhapur,

ABSTRACT — The goal of circular economy is high on national and international levels. A circular economy is targeted at making optimum use of natural resources, raw materials and products and reusing them. The circular economy makes both environmental and business sense and to make use of waste treatment and management has now become a crucial problem. Due to inadequate and insufficient collection, disposal and treatment techniques we are facing a severe problem of environmental pollution. It is the duty of local governing authority to provide proper solid waste treatment and management techniques in order to keep our city hygienically clean and environmentally healthy. One method used in order to reduce this growing problem of disposal is the conversion of the wet waste to electricity. This paper includes the technology adopted by Kagal Municipal Corporation that involves the utilization of food waste as a resource for the generation of electricity.

Index Terms - Disposal treatment, Energy, Food waste, Reuse, Solid waste Management, Food Security

I.INTRODUCTION

Food is one resource that requires critical attention. Reducing food waste has the potential to save resources, reduce pollution and increase food security. In many developed countries more food is wasted than developing countries. So to overcome this, optimum use of natural resources, raw materials and products and reusing them is essential. The aim of a circular economy is to use natural resources for longer, avoid waste, prevent environmental pollution and to get best out of waste, extract the maximum value from them while in use, then recovery and regenerate products and materials at the end of each service life. The Circular economy is restorative and regenerative by design. Relying on system- wide innovation, it aims to redefine products and services to design waste out, while minimizing negative impacts. Looking at the current scenario of waste generation and disposal system, optimum processes focusing on positive society wide benefits need to be designed. A circular model is based on these principles –

- Design out waste and pollution.
- Reep products and materials in use
- Regenerate natural systems.

Figure: Circular Economy

Food waste is one of the increasing environmental problems. Food is wasted at all levels but households are the most wasteful element. In household contexts food waste is increasingly considered an environmental problem. In a broader understanding of circular economy and food waste perspective every individual in a family should take initiatives to promote the