



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)

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

DTE INSTITUTE CODE : EN-6288

Tel.No.: (0231) 2638893, 2638894, Fax : 2636050

Web : <http://coekolhapur.bharativedyapeeth.edu> E-mail : coekolhapur@bharativedyapeeth.edu

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

Criterion III: - Research, Innovations and Extension

3.3 Research Publications and Awards 2017



Sr. No.	Title of the paper	ISSN	Name of Author	Page No.
1	By Using Tongue Detection of Diabetes Mellitus	2231-5063	Dr.K.R.Desai	5
2	Effect of Soft Decision Quantization in Compression Technique	2231-5063	Dr S.S.Patil	6

3	Multi-Target Tracking in Non-Overlapping Cameras Using AdaBoost	2231-5063	Mr.S. B. Jadhav	7
4	Design and Implementation of Cloud Based Light Intensity Monitoring and Control System Using Raspberry Pi	2231-5063	Mr. S. B. Jadhav	8
5	New proposed work for Epilepsy Seizure Detection Using Wavelet Based by Artifact Reduction	2231-5063	Mr.S.S. Pawar	9
6	Microstrip Patch Antenna for Bandwidth Enhancement:A Review	2231-5063	Dr.S.S.Patil	10
7	Texture Extraction Using Speeded Up Robust Features (SURF) Method	2231-5063	Ms.J.K.Patil	11
8	Tsallis Entropy And Wavelet Transform Base EEG Signal Classification	2231-5063	Mr.S.S. Pawar	12
9	Fuzzy C- Means Clustering Based Segmentation of Vertebrae in T1-Weighted Spinal MR Images	2231-5063	Ms.J.K.Patil	13
10	Detection and Removal of Shadow from Urban HighResolution Remote Sensing Images Using Object-Oriented Technique	2231-5063	Ms.J.K.Patil	14
11	Facial Feature Extraction Using Modified-LBP	2231-5063	Dr. K. R. Desai	15
12	REVIEW OF INTERNET OF THINGS AND IT'S APPLICATIONS	2231-5063	Mr. S.B. Patil	16
13	PREVENTIVE HEALTHCARE APPLICATION FOR DIABETIC PATIENTS AT HOME USING SMARTPHONE	2231-5063	Mrs. S. M. Mulla	17
14	CLOUD BASED PARKING SYSTEM USING RFID	2231-5063	Mrs. S. M. Mulla	18
15	TEST PORTAL USING MOBILE AD-HOC NETWORK	2231-5063	Mr. S. B. Patil	19
16	A SURVEY ON RARE SEQUENTIAL TOPIC PATTERNS	2231-5063	Mr. S. B. Takmare	20
17	A SURVEY ON MULTI THREADED CONTROLLERFORWARDER QoS ARCHITECTURE FOR	2231-5063	Mr. S. B. Takmare	21

	MULTIMEDIA OVER SDN			
18	PRIVACY PRESERVING PUBLIC AUDITING WITH DATA DEDUPLICATION IN CLOUD COMPUTING	2231-5063	Mr. R.P. Mirajkar	22
19	Implementation of FIR filter using VLSI	2231-5063	Mr.S.B.Jadhav	23
20	PENDRIVE TO PENDRIVE DATA TRANSFER WITHOUT USING PC	2231-5063	Mr.V. S. Mandlik	24
21	Use of ARC GIS and Global mapping in planning of hydraulic structures	2231-5063	Mr. V. S. Kadam	25
22	Use of Q GIS for roof top rain water harvesting at sidhigiri math Kagal	2231-5063	Mr. V. S. Kadam	26
23	Implementation of SWOT Analysis For Constructionv Project : A Review	2231-5063	Mr. O. K. Chothe	27
24	PARAMETERS OF UNDERGROUND WATER	2231-5063	Mr. V. S. Tiware	28
25	Review on Scaffold Formation by Electro spinning Technique in Biomedical Field	2231-5063	Mr. S.J.Kadam	29
26	Electro spinning Technique in Energy Transmission Application	2231-5063	Mr. S.J.Kadam	30
27	Optimization Of Roller Belt Conveyor In Sugarcane Industry	2231-5063	Mr. S.J.Kadam	31
28	The New Development Of Cad In Clothing	2231-5063	Mr. S.J.Kadam	32
29	Design And Manufacturing Of Semiautomatic Paper Cutting Machine	2231-5063	Mr. S.J.Kadam	33
30	A Review of Design Improvement of SP17 Mixed Flow Type Stainless Steel Fabricated Pump Using CFD	2231-5063	Mr.P.B.Patole	34
31	Design And Development Of Steam Operated Jaggery Making System	2231-5063	Mr.P.D.Rajigire	35
32	Design Of Portable Three Wheeler	2231-5063	Mr.K.K.Patil	36
33	Design And Fabrication Of Machine Performing Multiple Wood Working Operations Using Single Drive.	2231-5063	Mr.M S Shinge	37
34	Design Of Portable Three Wheeler	2231-5063	Mr.M S Shinge	38

35	Automatic Coconut De-Husking And De-Shelling Machine	2231-5063	Mr.S.B.Kamble	39
36	UAV For Medical Emergencies: Organ Transport	2231-5063	Mr.G.J.Pol	40
37	Automated Material Handling System For Multi Storage Building	2231-5063	Mr.G.J.Pol	41
38	Optimization Of Roller Belt Conveyor In Sugarcane Industry	2231-5063	Mr.G.J.Pol	42
39	Review On Automobile Tyre	2231-5063	Mr.G.J.Pol	43
40	Design Of Portable Three Wheeler	2231-5063	Mr.A.A.Desai	44
41	Optimisation of wall thickness for minimum heat losses for indication furnace	2231-5063	Mr.A.A.Desai	45
42	Review On Automobile Tyre	2231-5063	Mr.A.R.Jadhav	46
43	Water Tank Cleaning Machine	2231-5063	Mr.A.R.Jadhav	47
44	Design Of Portable Three Wheeler	2231-5063	Mr.A.R.Jadhav	48
45	A Review On Centrifugal Clutch	2231-5063	Mr.S.V.Pandit	49
46	AReview On Automobile Tyre	2231-5063	Mr.S.V.Pandit	50

By Using Tongue Detection of Diabetes Mellitus

¹Miss. Minal A. Lohar, ²Dr. K.R.Desai
mncnu26.lohar@gmail.com, ²krdesai2013@gmail.com
BVCOE, Electronics Department

Abstract — This paper proposes a non-invasive method to detect diabetic mellitus and non-proliferative diabetic retinopathy with the three groups of features extracted from tongue images which are initial stage of DR based. They are in the form of color, texture and geometry. One of the 21st century's major health problems is diabetic mellitus (DM) & its complication towards retinopathy. Initially, the non-invasive capture device with image correction captures the images of tongue. A tongue color feature gives 12 tongue color gamut, for characterize the 9 tongue texture features the texture values of 8 blocks strategically located on the tongue surface. On the basis of measurements, distance, areas & their ratios 13 features extracted from tongue images to represent geometry features. The proposed method can separate HealthyDM tongues & NPDR/DM- sum NPDR (DM samples without NPDR) tongues using features with average accuracies of 80.52% & 80.33% respectively of 34 features. From database 29 samples in DM are NPDR from sample consisting 130 Healthy and 296 DM samples.

Keywords — Matlab, Image Pre-processing, Tongue color features, Tongue texture features, Tongue geometry features, Diabetes Mellitus detection, Non-proliferative Diabetic Retinopathy features

I. INTRODUCTION

In the observation of World Health Organization in the year 2000 that there is 171 million people in the world are having the diabetes mellitus(DM) and it may be get increased up to 366 million in 2030, though it may lead to cause of death, disabilities, & economic hardship in the world because of this disease. Two main types of DM exist, people which are fails to produce insulin and they require injection of it are type 1 DM & people can be categorized by insulin resistance are the type 2 DM which are most common type. Managing by eating well, exercising, and maintaining a healthy lifestyle type 2 DM can be controlled. In the medical professionals to diagnose DM, the Fasting plasma glucose (FPG) test is the standard method. FPG test is performed after the patient has gone at least 12 h without food, and requires taking a sample of the patient's blood (by piercing their finger) in order to analyze its blood glucose levels. Even though this method is accurate, it can be considered invasive, and slightly painful (piercing process). Diabetic retinopathy is a well-recognized complication of diabetes mellitus. Well-conducted clinical trials have shown that good control of diabetes and hypertension significantly reduces the risk for diabetic retinopathy, and there is evidence from studies spanning more than 30 years that treatment of established retinopathy can reduce the risk for visual loss by more than 90%.[1][2]

Care for diabetic retinopathy is relatively expensive and requires properly trained eye-care professionals. The decisions made by each country are adapted to their resources, social expectations and available health-care infrastructure. Effective services for prevention and treatment of diabetic retinopathy can be provided only if adequate medical services for patients with diabetes mellitus are in place.

WHO estimated that, Diabetic retinopathy (DR) is a micro vascular complication of DM that is responsible for 4.8% of the 37 million cases of blindness in the world. Disease if detected can be treated to prevent further progression and sight loss is in earliest stage is known as non-proliferative diabetic retinopathy (NPDR). Various imaging modalities such as redfree, angiography, and color fundus imaging are used to examine the human retina in order to detect DR and subsequently NPDR.[2]

Effect of Soft Decision Quantization in Compression Technique

Shital S. Chole¹, De Suhas.S.Patil²

P.G. Student, Department of E&TC Engineering, Bharati Vidyapeeth's College Of Engineering, Kothapur, India¹

Principal of Bharati Vidyapeeth's College Of Engineering, Kothapur, India²

shitalchole2017@gmail.com

dsuhas2017@gmail.com

Abstract: Image compression is technique that addresses the problem of reducing the amount of data required to represent a digital image. In this paper instead of normal DCT (Discrete Cosine Transform) we used block 8X8 DCT for image compression. Although the standard blocks size, which is 8 pixels by 8 pixels is usually the most well rounded choice, the different block size is suited for a particular image. To improve the quality of decompressed image with low image size here also Soft Decision Quantization (SDQ) algorithm proposed. Due to the SDQ, it improves rate distortion (RD) performance of image coding system. For some application size of image required very small but quality of that image want to be a better. This is the main objective of the paper.

Index Terms — Image Compression, Discrete Cosine Transform, Block Transform, Rate Distortion, Soft Decision Quantization

I. INTRODUCTION

This research paper about improving image quality of decompressed image at the output side. Here, first we discuss the compression technique and then quantization method for to get the better quality image at the output.

The objective of image compression is to reduce irrelevance and redundancy of the image data in order to be able to store and transmit data in an efficient form. Basic types of image compression are lossy and lossless image compression. Various methods are generated for both type of image compression [1]. Lossy image compression uses the transform techniques like Discrete Fourier Transform (DFT), Discrete Cosine Transform (DCT) etc. In this paper we used block 8X8 DCT technique [2] [3]. In block transform image is dividing into 8 pixels by 8 pixels block, and then we take DCT of each block. Taking the DCT of a each block, matrix multiply the block by a mask that will zero out certain values from the DCT matrix. DCT uses only cosine function, therefore not interacting with complex number at all. Humans are unable to see the aspects of an image at high frequency. Since taking the DCT allows us to isolate where these high frequencies are, so we can take advantage of this in choosing which values we want to preserve. By multiplying the DCT matrix by some mask, we can zero out elements of the matrix, thereby freeing the memory that had been representing those values. Due to block DCT also we can save memory space [3].

The image consist inliers and outliers part. Inliers are the content which present inside an image, whereas outliers are the edges of the image. Outliers and inliers are two statistical different regions, in that probability of occurrence of outlier is small as compared to inliers. Soft decision quantization algorithm, we only consider for inlier part of the image.

II. RELATED WORK

Many researchers develop different encoding algorithm for DCT coefficient and also the techniques which improve the rate distortion present into an image. Variable rate trellis encoding, Huffman coding, run length coding, context based entropy coding, intra frame coding these are all methods are developed earlier. Z.Zhang proposed in their paper variable rate trellis algorithm for encoding. They tell us that the developed code is useful for low region. It gives low rate output, so such low rate the coders perform poorly [4].

B94

Multi-Target Tracking in Non-Overlapping Cameras Using AdaBoost

Pooja Magdam¹, S. B. Jadhav²

P.G. Student, Department of E&TC Engineering, Bharati Vidyapeeth's College Of Engineering, Kolhapur, India¹
Assistant Professor, Department of E&TC Engineering, Bharati Vidyapeeth's College Of Engineering,
Kolhapur, India²

poojamagdam.373@gmail.com

sushin30_316@rediffmail.com

Abstract: Multi-target tracking is an important task within the field of computer vision and it's still challenging research topic. Nowadays, the demand of surveillance camera is increasing rapidly. It is useful for developing surveillance as well as monitoring purpose [1][2]. Some previous methods are used for multi-target tracking that are colour histogram, brightness transfer function (BTF) [9]. Many times it is not possible to cover complete area of interest by using single camera, such a cases there is need to use multi-target tracking system with non-overlapping field of views. In this paper we use two comparative methods of feature extractions that are AdaBoost [15]. The paper proposes the reference set based tracking in non-overlapping FOV's due to overlapping FOV's are having high cost. In this work widely used features HSV colour histograms, LBP, HOG are used to extract colour, texture, shape of target.

Keywords: multi-target tracking, predefined reference set, AdaBoost, Gentleboost.

I. INTRODUCTION

Multi-target tracking is the research approach which is used to find the locations and sizes of multiple targets. Nowadays CCTV cameras are used for many purposes such as in public places, schools, airports, colleges etc [18]. For security purpose the rate of use of CCTV cameras are increases. The paper proposes to track the object robustly using multi-target tracking concept in non-overlapping field of views [11]. There are two types of field of views that are overlapping FOV's and non-overlapping FOV's. The paper focused on non-overlapping FOV's. The main goal of this project to find the appearance of same object across the multiple camera output tracks. In computer vision automatic tracking of multiple targets is the recent topic which is used for industrial applications such as security purpose or monitoring purpose. The idea of multi-target tracking which is done by comparing both outputs that are output obtained from different cameras is compared with multi-cam dataset output. Using techniques for human detection, multi-target tracking system can play important role to capture location of people at public areas such as stores and travel sites and then produce congestion analysis to assist in the management of the people. In such a way tracking system can monitor express ways and junctions of the road network. In some cases it is necessary to analyse the behaviour of people and vehicles also and check whether these behaviours are normal or abnormal. For example multi-target tracking system set in parking lots and supermarkets could track abnormal behaviour of them which is useful to identify any criminals quickly and then contact the police immediately [17].

II. RELATED WORK

In this paper we propose the novel approach of multi-target tracking in non-overlapping cameras. With the help of tracking system we get the exact location and size of the object which are captured by the surveillance camera. Due to variation in illumination conditions, and camera imaging characteristics, there might be significant appearance change of target across camera views [18]. In multi-target tracking system there is need to track same object across multiple camera output tracks provided cameras are consist of non-overlapping regions. Consequently the same target may appear in very different in two cameras which causes to error. Hence in most previous methods the appearance similarity is captured either using color histogram or based on brightness transfer function (BTF) [9]. BTF is used to find color difference between different cameras output. In computer vision automatic tracking of multiple targets is the recent research topic which is used for industrial applications. This project proposes reference set based appearance of the target to determine the similarity of multiple targets in different camera. The goal of multi-tracking across camera is to associate tracks in different cameras which contain the same object [18]. The idea of multi-target tracking which is done by comparing both outputs that are output

Design and Implentaion of Cloud Based Light Intensity Monitoring and Control System Using Raspberry Pi

Mr. D.P. Belgankar¹, Mr. S. B. Jadhav²

¹ dhanrajyph@gmail.com

² Assistant Professor

Sachin30_2k6@rediffmail.com

Bhakti vidyapeeth college of engineering, Kolhapur
E & TC Department

Abstract— There are variety of applications for Light Meters for measuring and maintaining a adequate light levels such as laboratories, hospitals, schools etc. To maintain healthier and safer environment adequate light levels in the workplace are necessary. Also during summer days, light intensity coming from sun light is too high which has to be controlled for avoiding overheating. This outcomes in keeping up light power. Light force estimation should be possible utilizing distinctive sensors. Generally favoured sensors are LDR and photo diode. In the greater part of the applications estimation of light force is important to keep up required measure of light.

Index Terms— Raspberry pi B+ model, HDMI cable, LDR circuit, GPIO

I. INTRODUCTION

A considerable lot of the enterprises are troubled with predetermined number of assets and genuine deficiency of specialists on their fields; real time remote checking presents a successful arrangement that limits their endavors and consumptions to accomplish the crucial outcomes inside time. This paper introduces real time remote Light intensity monitoring system using Raspberry Pi which enables the user to track the lighting system remotely. Raspberry pi is a minimal effort ARM controlled Linux based PC which goes about as a server, and it speaks with customers with LAN or outside Wi-Fi module. The key element of this framework is light power being observed promptly and information put away in the database for sometime later, and appeared as dynamic diagrams to the client as per the client necessity in a terminal gadget like Tablet or Smart Phone or any web empowered gadget.

This enables specialists to settle on right choices at opportune time to get sought outcomes

To guarantee wellbeing out and about, movement lights should be plainly obvious for street clients. The light force must be adequate under each (climate) condition, which set as legitimate principles. Throughout time, the incandescent force of activity lights gradually diminishes. Conceivable reasons are contamination of focal points or reflectors, maturing of the light source or individual LED failure. Remote observing empowers the street specialist to do opportune administrations, in a manner that activity lights keep satisfying the statutory guidelines for ideal movement wellbeing.

New proposed work for Epilepsy Seizure Detection Using Wavelet Based by Artifact Reduction

Neha Araywanshi¹, S.S. Parne²

P.G. Student, Department of Electronics and Telecommunication, Bharati Vidyapeeth Engineering College, Chitranagar, Kolhapur, India¹

Assistant Professor, Department of Electronics and Telecommunication, Bharati Vidyapeeth Engineering College, Chitranagar, Kolhapur, India²

Abstract: This paper presents a method to remove artifacts from scalp EEG recordings to diagnosis/ detect seizure in epilepsy patients. Epilepsy is a neurological disorder in which the nerves in the brain communicate abnormally with each other. The proposed method is primarily based on stationary wavelet transform and takes the spectral band of seizure activities into account to remove artifacts in seizures. The EEG features responsible for the detection of seizures from non-seizure epochs have been found to be easily distinguishable after artifacts are removed and consequently the false alarms in seizure detection are reduced. The proposed algorithm is based on the stationary wavelet transform (SWT) that takes the spectral band of seizure activities into account to separate artifacts from seizures. The reason of choosing wavelet transform over other methods (e.g. BSS, EMD, Adaptive Filtering, etc.) is its ability to decompose single-channel EEG data into different frequency band. In addition, the choice of SWT over discrete wavelet transform (DWT) is the factor that SWT is translational invariant since it involves up sampling of the filter coefficients instead of down sampling unlike in DWT.

Keywords: Artifact, Scalp EEG, Epilepsy, Seizure detection, Stationary Wavelet Transform

I. INTRODUCTION

Epilepsy is a neurological disorder in which the nerves of the brain communicate abnormally with each other. Epilepsy occurs when a surge of electrical signals from one cluster of nerve cells called neurons, temporarily overwhelm other neurons in the brain. The occurrence of seizure is uncertain which is the cause of disability associated with epilepsy [1]. To reduce this uncertainty of epilepsy, a recording system that provides early as well as accurate seizure detection with immediate warning. One way to achieve that is to use the long-term EEG recording to detect the characteristics of EEG waveforms during seizures. The prolonged EEG recording is not only can increase the chance of detecting an ictal event (seizure) or an interictal epileptic discharge, but it is also useful in the diagnosis of non-epileptic paroxysmal disorders compared to a routine EEG. Unfortunately, EEG recordings are contaminated by different forms of artifacts such as artifacts due to pop-up, motor artifacts, ocular artifacts and EMG artifacts from muscle activity that reduces the accuracy of recorded EEG signal. Thus, in order to correctly diagnosis the epilepsy, it is extremely important to remove such artifacts, prior to seizure detection. The proposed algorithm is based on the stationary wavelet transform (SWT) that takes the spectral band of seizure activities into account to separate artifacts from seizures. The reason of choosing wavelet transform over other methods (e.g. BSS, EMD, Adaptive Filtering, etc.) is its ability to decompose single-channel EEG data into different frequency band. In addition, the choice of SWT over discrete wavelet transform (DWT) is the factor that SWT is translational invariant since it involves up sampling of the filter coefficients instead of down sampling unlike in DWT [1]. The proposed method is evaluated for EEG data where data consist of epileptic seizures and artifacts. The algorithm remove artifacts as much as possible without distorting the signal of interest.

Microstrip Patch Antenna for Bandwidth Enhancement: A Review

S.M.Chavan¹* & Dr.S.S.Patil²

P.G. Student, Department of Electronics and Telecommunication, BVCOE, Kolhapur
Maharashtra India¹

Principal of BVCOE Kolhapur, Maharashtra, India²

smchavan5515@gmail.com

sspatil@gmail.com

Abstract- New and exciting technology invented about twenty years ago in field of antennas i.e microstrip patch antennas. It has found increasing use of antennas because of its advantages like light weight, small size, low cost, easy design and efficiency. Compatibility with printed circuit boards at microwave frequencies demanded in modern communication devices. This paper presents pentagonal shaped antenna design and study of past few years shows that MPA are targeted to plan compact antennas for bandwidth enhancement. Microstrip patch antenna is good choice for different wireless applications. Also study of different parameters is done.

Keywords- Bandwidth, Design parameter, Dielectric, Feeding technique, Microstrip Patch Antenna

I. INTRODUCTION

In this paper pentagonal shaped patch antenna that operates at 3.281GHz to 7.45GHz frequencies has been analyzed. Patch antenna is a narrowband, wide beam antenna fabricated by etching the antenna element pattern in metal trace bonded to an insulating dielectric substrate such as a printed circuit board. There has been growing demand in military as well as commercial sector for antennas that possesses attributes like low profile, compact size, light weight, low cost, compatibility with Microwave Monolithic Integrated Circuits (MMIC's) etc. Conventional patch antenna designs encounter severe limitations such as narrow bandwidth, low gain and surface wave losses. Commonly used antenna shapes are rectangular, circular, elliptical etc. Some of the techniques proposed by researchers for widening the bandwidth are; wide-slot antennas fed by a microstrip line with a fork-like tuning stub [1], E-patch [3], a Rotated Slot [7] etc. Another way to enhance the bandwidth is by introducing slot and patch with same shape in ground plane printed on same side of substrate also with increase in the substrate thickness or reduced dielectric constant. Proposed antenna shows that wideband characteristics are depend on various parameters such as slot-patch dimensions, feeding technique etc. Antenna bandwidth broadening achieved by using same shaped slot and radiating patch geometry in pentagonal antenna. By changing geometrical dimensions and analysis is carried out with the help of High Frequency Structure Simulator (HFSS).

II. ANTENNA DESIGN AND PARAMETRIC STUDY

Three important parameters for design of microstrip patch antenna are

- Resonant frequency (f_0)
- Substrate thickness (h)
- Dielectric substrate (ϵ_r)

Appropriate selection of resonant frequency is necessary in antenna design. Dielectric substrate thickness i.e. $h=1.6$ is employed in this design. FR-4 Epoxy with dielectric constant 4.4 and 0.02 loss tangent used for the antenna design. Dielectric constants are normally in the range of ($2.2 < \epsilon_r < 12$). In the recent years much intensive research has been done to develop bandwidth enhancement techniques. Some techniques include the utilization of thick substrates with low dielectric constant, and slotted patch [2].

Pentagonal slot antenna designed on FR4 substrate with $25 \times 25 \times 1.6$ mm³ in size. The antenna made up of ground plane of length L and width W. Pentagonal shaped slot cut from ground plane. Side lengths of slot can be varied. Structure contains parasitic patch with same shape at origin. Antenna fed by microstrip line placed beneath L length of feed line, distance from the origin and side lengths of slot varied to achieve

B124

Texture Extraction Using Speeded Up Robust Features (SURF) Method

NarantRade¹, J.K.Patil²

P.G. Scholar, Department of E&TC Engineering, BharatVidyapeeth's College Of Engineering, Kolhapur, India¹

Associate Professor, Department of E&TC Engineering, BharatVidyapeeth's College Of Engineering, Kolhapur, India²

narantnade@gmail.com

jyotsna@gmail.com

Abstract Today, different methods of texture extraction are available which acquire image features depending on image texture. This paper gives an innovative feature extraction technique called Speeded up Robust Features (SURF) method. This method provides descriptive representation of an image by obtaining information in the form of key-points. To detect key-points, SURF uses determinant of Hessian blob detector. SURF method gives excellent performance over earlier methods due to robustness, fast computation and comparison features. This is achieved by using integral image representation and due to its invariant nature to image rotation. In this paper, we have conducted experiments on UMD texture dataset and also calculated Euclidean distance from image feature. The results show strong performance of SURF method in terms of computation and matching.

Keywords: Description, Detection, Euclidean distance, Extraction, Key-points, Matching.

1. INTRODUCTION

Texture is a repeating pattern of variation in pixel intensities. It plays important role in image classification as it describes the appearance of object. If there is an image in which three objects are overlapped, we cannot identify them separately. But the objects can be characterized by using their textures because each image has a specific texture. Many real world applications like rock classification, wood species recognition, face recognition, geographical landscape segmentation, and object detection use the texture information from images. In all these applications, the target object is viewed as a specific type and hence they can be solved using texture extraction [1], [2], [3].

Texture extraction is the process to characterize each texture class in terms of feature measures. There are many texture extraction methods were introduced like gray level co-occurrence matrices (GLCM), Gabor filters, Local Binary Pattern (LBP)[4], wavelet transform methods, and Independent component analysis. All these methods are based on simple computations and take more time for execution. Surf method is superior to all these earlier methods due to having advantages like robustness, fast computation and comparison. SURF technique is also good at handling blurred and rotational images. To speed up the performance, intermediate image representation that is integral image is used [5], [6].

SURF is a texture detector and descriptor method which has application in object recognition, image registration, classification, reconstruction of 3D scenes and tracking objects. To extract features from an image, point of interests are founded by using Hessian blob detector. Further description is obtained for each point of interest. The descriptor is based on sum of Haar wavelet responses around the point of interest. Last stage of SURF method is comparison and matching of descriptors obtained from different images [7].

2. RELATED WORK

Many researchers have developed different texture extraction algorithms which include co-occurrence matrices[8], Markov random field, Gabor filter bank, Local Binary Patterns and Scale Invariant Feature Transform. The key idea behind these methods is to capture information from image. To acquire information Gabor based method uses the response of Gabor Filter banks[9]. LBP uses difference of pixel values. In LBP, the information provided by the magnitude of the pixels is ignored which causes loss of captured information about image features [10].

Shokoufandeh et al. [11] provides more distinctive feature descriptors using wavelet coefficients. Pope and Lowe [12] used features based on the hierarchical grouping of image contours, which are useful for objects lacking detailed texture. Matas et al., [13] have shown that maximally-stable external regions can

B130

Tsallis Entropy And Wavelet Transform Base EEG Signal Classification.

Kadambur Narayankar¹, S.S. Parwar²

P.G. Student, Department of Electronics and Telecommunication, Bharati vidyapeeth Engineering College,
Kolhapur, India¹

Assistant Professor, Department of Electronics and Telecommunication, Bharati vidyapeeth Engineering
College, Kolhapur, India²

kadambur.narayankar@gmail.com

parwarssanjay2@rediffmail.com

Abstract: This paper presents Electroencephalogram (EEG) signal comparison using entropy value and wavelet transform based classification. The signal after entropy calculated can be classify using k nearest neighbour classification. Feature vectors belonging to separate signal segments are classified using neural network in case of wavelet transform. After classification wavelet transform proves to be more accurate method for EEG signal analysis.

Keywords: EEG, Entropy, Wavelet Transform, K Nearest neighbour, Neural network.

I. INTRODUCTION

Electroencephalogram (EEG) remains the most immediate, easy and rich source of information for accepting phenomena related to brain electrical activities. [1] Important information, about the state of patient under observation, must be extracted from calculated DSD (Decimated Signal Diagonalization) biospectrum.[2] For this aim, it is useful to delineate an assessment index about the dynamic process associated with the analysed signal. This information is measure by means of entropy, since the degree of order or disorder of the recorded EEG Signal will be reflected in the obtained DSD biospectrum.[3] Tsallis entropy is better than Shannon one because it maximizes the probabilities of the events of the interest through the selection of the entropy index, and so it permits to detect in more perfect way, spikes related to epileptic seizure. Then, the signals are classified using k nearest neighbour classifier.

Segmentation, feature extraction and classification of signal components are very common problems in different engineering, economical and biomedical applications. The uses of discrete wavelet transform (DWT) both for signal pre-processing and signal segment feature extraction as an option to the commonly used Discrete Fourier Transform (DFT).[4] Feature vectors of the separate signal segments are then classify by a neural network. Then by comparing entropy value based and wavelet transform based classification, we can find out which method is more accurate for EEG signal analysis.

II. RELATED WORK

Methodology

The EEG signal can be classify using Entropy and wavelet transform. The estimate of entropy index proposes a multidimensional approach with decimated signal diagonalization (DSD). From this calculation it is possible to find appropriate signal windows for revealing predictable information as well as overcoming signal processing limitations encounter in quantitative EEG. [1]

The EEG signals of interest are first pre-process using DWT. The method of Discrete Fourier Transform (DFT) is chosen because this transform has dominance of capturing the details of non-stationary signals. The frequency and rapid changes in the biomedical signals can be trace and study effectively using DWT. So that comparing entropy values that are classified using k nearest neighbour and wavelet transform based classification using neural network. We can get more accurate method for EEG signal analysis. [5]

Fuzzy C- Means Clustering Based Segmentation of Vertebrae in T1-Weighted Spinal MR Images

Patil Tejaswini S. P.G. Scholar, Bharati Vidyapeeth's College of Engineering Kolhapur,
Patil J.K., Associate Professor, Department of E&TC, Bharati Vidyapeeth College of Engineering,
Kolhapur, Maharashtra, India

jsauripatil08@yahoo.co.in

jaymalap@gmail.com

Abstract:The spinal cord is an organ that is the sole communication link between the brain and also the numerous components of the body. It is susceptible to traumatic spinal cord injury and numerous diseases such as tumors, infections, inflammatory diseases and chronic diseases. The exact segmentation and localization of the spinal cord are essential to effective clinical management of such conditions. In recent years, because of the advances in imaging technology, the structure of internal organs and tissues can be captured accurately, and various abnormalities are diagnosed based on scanned images. This paper presents fuzzy clustering based approach for segmentation of vertebrae in T1- Weighted spinal MR images. The objective of this paper is to segment spinal MR image using Fuzzy C-Means clustering algorithm. Implementation of the algorithm is done on both kinds of images – noiseless and corrupted with noise. Gaussian noise is introduced and the image consists of two clusters.

Keys: Segmentation, Fuzzy C- Means, Morphology, MR images.

I. INTRODUCTION

In Computer Vision, image segmentation plays a very important role in the exploration of an image. Image segmentation is having a wide variety of applications such as medical segmentation, object recognition etc. Image segmentation helps in separating an image to numerous parts. A portion of an image which is having a same set of datasets would form a group and another dataset belonging to dissimilar group. The grouping of the similar dataset can help us to extract different regions of texture, intensity, color etc. This technique of image partitioning into groups (clusters) having similar datasets is considered as Clustering. Image segmentation can be divided basically in four types: region extraction, clustering, edge detection, thresholding. There are many clustering algorithms having their own unique features. They can be categorized basically in two groups: "Hard" clustering algorithm or "Soft" clustering algorithm. K-mean clustering is a "hard" clustering algorithm. In this algorithm, every dataset of an image has its place to one cluster only. Hard segmentation becomes a difficult task in the situations where images are having poor contrast, noise, overlapping intensities etc. The most widespread method of soft clustering is Fuzzy C-means (FCM) algorithm which is widely used in image segmentation because of its strong features which give more data information than the hard-segmenting methods. In FCM, task of membership function is linked with each element of data set and these elements can fit to more than one cluster. Membership function gives the possibility that pixel belongs to a certain cluster. This possibility depends on the distance amongst individual cluster center and the pixel. When a new locality of new cluster is restructured degree of membership shows how each pattern contribute in adjusting the new location of cluster center. Low membership values are allotted to minimize the cost function for FCM. FCM uses the Euclidean distance measurement technique to measure the distance between cluster center and data elements. Although FCM algorithm works fine, it has some limits. This algorithm is not succeeded to segment corrupted images owed to noise, outliers. In [1] FCM failed to outline some region of interest of several images as well as in the complex topologies like spinous process and transverse process it failed to give the quality results when segmented.

Detection and Removal of Shadow from Urban High-Resolution Remote Sensing Images Using Object-Oriented Technique

Ms. Sujata B. Kale, Prof. Jayamala K. Patil

P.G. Student, Department of Electronics & Telecommunication Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

Assistant Professor, Department of Electronics & Telecommunication, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

Abstract — In this paper, an object-oriented shadow detection and removal method is used. For the characteristics of urban high-resolution remote sensing images this is forward method. In this method, during image segmentation, shadow features are considered. After that according to statistical features of the images, suspected shadows are extracted. Generally some dark objects are taken as shadows by mistake. These dark objects are known as false shadows. These false shadows are ruled out according to object properties and spatial relationship between objects. From this method shadow is detected from image. For the removal of shadow, inner-outer outline profile (IOOPL) matching is used. First, IOOPLs are obtained from the boundary lines of shadow. Removal of shadow is then performed according to the homogeneous sections. Homogeneous sections are attained through IOOPL similarity matching. This object-oriented shadow detection and removal method gives shadow-free urban high resolution images.

Keywords — Change detection, image segmentation, inner-outer outline profile line (IOOPL), object-oriented, shadow detection, shadow removal.

I. INTRODUCTION

The presence of shadows has been responsible for reducing the reliability of many computer vision algorithms, including segmentation, object detection, scene analysis, tracking, etc. Therefore, shadow detection and removal is an important pre-processing for improving performance of such vision tasks. For the observation of Earth and the rapid development of some aerial platforms such as airships and unmanned aerial vehicles, high spatial-resolution satellites such as IKONOS, Quick-Bird, Geo-Eye, and Resource 3 are available. There has been an increasing need to analyze high-resolution images for different applications. In urban areas, surface features are somewhat complex, objects and shadows formed by elevated objects such as high buildings, bridges, and trees. Although shadows themselves become a type of useful information in 3-D reconstruction, building position recognition, and height estimation. They can also interfere with the processing and application of high-resolution remote sensing images. For example, shadows may cause errors and incorrect results during change detection. In the applications of urban high-resolution remote sensing images like object classification, object recognition, change detection and image fusion detection and removal of shadow is important [1][2].

The obstruction of light by objects creates shadows in a scene. An object may cast a shadow on itself, called self-shadow. The shadow areas are less illuminated than the surrounding areas. In some cases the shadows provide useful information, such as the relative position of an object from the source. But these shadows can cause problems in computer vision applications like segmentation, object detection and object counting. Thus shadow detection and removal is a pre-processing task in many computer vision applications. Based on the intensity, the shadows are of two types – hard and soft shadows. The soft shadows retain the texture of the background surface, whereas the hard shadows are too dark and have little texture. Thus the detection of hard shadows is complicated as they may be mistaken as dark objects rather than shadows [1].

B146

Facial Feature Extraction Using Modified-LBP

Ms. Sneha S. Masc, Dr. K. R. Desai

P.G. Student, Department of E&TC Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur,
 India.

Associate Professor, Department of E&TC Engineering, Bharati Vidyapeeth's College of Engineering,
 Kolhapur, India.

Abstract: This paper proposes a facial feature extraction system using improved LBP (hvnLBP). The system first pre-process the input image for illumination changes and noise invariance. Then Face detection is proposed and Gabor filter is also applied to produce magnitude pictures. Finally, the proposed LBP i.e. modified LBP is employed, which conducts horizontal and vertical neighborhood pixel comparison, to generate a discriminative facial features.

Keywords: Matlab, Image Pre-processing, Adaptive Histogram Equalization, Face detection, Feature extraction, LBP, hvnLBP.

I. INTRODUCTION

Feature extraction is one of the most vital steps involved in image description. Every feature extraction technique has its own merits and demerits. For a particular application a carefully worked fusion of features, extracted using different techniques, can enhance the image description capabilities [1].

This paper proposes a facial feature extraction system using modified-Local Binary Pattern (hvnLBP). In this system first the image is acquired. Then the input image is preprocessed for illumination changes. Face-detection system detects face and crops face portion. Then the proposed LBP is used to extract features of the input image. A modified LBP operator that conducts horizontal and vertical neighborhood pixel comparison is proposed, in order to overcome the drawbacks of original LBP by retrieving the missing contrast information embedded in the neighborhood to generate the initial discriminative facial representation [2].

II. EXISTING SYSTEM

The existing system is the Local Binary Pattern (LBP). Local binary pattern is created in the following manner:

- Initially it divides the examined window into cells (e.g. 16*16 pixels for each cell).
- For each pixel in a cell, compare the pixel to each of its 8 neighbors (on its left-top, left-middle, left-bottom, right-top, etc.). Follow the pixels along a circle, i.e. clockwise or counter-clockwise.
- Where the center pixel's value is greater than the neighbor's value, write "0". Otherwise, write "1". This gives an 8-digit binary number (which is usually converted to decimal for convenience).
- This gives the facial feature of the image.
- The value of the LBP code of a example pixel (x, y) is given by;

$$LBP_{p,q} = \sum_{i=0}^{P-1} s(g_i - g_c) 2^i \quad s(x) = 1, \text{ if } x \geq 0; \quad s(x) = 0, \text{ otherwise.}$$

example	thresholded	weights																											
<table border="1"> <tr><td>6</td><td>5</td><td>2</td></tr> <tr><td>7</td><td>6</td><td>1</td></tr> <tr><td>9</td><td>8</td><td>7</td></tr> </table>	6	5	2	7	6	1	9	8	7	<table border="1"> <tr><td>1</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>1</td><td>0</td></tr> <tr><td>1</td><td>1</td><td>1</td></tr> </table>	1	0	0	1	1	0	1	1	1	<table border="1"> <tr><td>1</td><td>2</td><td>4</td></tr> <tr><td>128</td><td>8</td><td>8</td></tr> <tr><td>64</td><td>32</td><td>16</td></tr> </table>	1	2	4	128	8	8	64	32	16
6	5	2																											
7	6	1																											
9	8	7																											
1	0	0																											
1	1	0																											
1	1	1																											
1	2	4																											
128	8	8																											
64	32	16																											

- Pattern = 11110001
- LBP = 1+16+32+64+128
= 241
- C = [(6+7+8+9+7)/5] - [(5+2+1)/3]

B154

REVIEW OF INTERNET OF THINGS AND IT'S APPLICATIONS

Miss. Varsha P. Goud, Prof. Mr. Sagar B. Patil

U.G. Student, Department of Computer Science and Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

Assistant Professor, Department of Computer Science and Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

Abstract: In general, the IoT promotes a enhanced level of awareness about our world, and a platform from which to monitor the reactions to the changing conditions that said awareness exposes us to. The government has adopted the field of "Internet of Things" as a national strategic project, announcing the Internet of Things master plan to achieve a leading country of hyper-connected digital revolution. Internet of Things (IoT) faces challenges in providing the end-to-end performance, security, and energy efficiency needed for the Smart Systems. These future smart systems will include smart cities, smart transportation systems, and smart manufacturing. Internet of Things allow massive number of uniquely addressable "things" to communicate with each other and transfer data over existing internet or compatible network protocols.

Keywords: IoT

I. INTRODUCTION

The term "Internet of Things" (IoT) was first used in 1999 by British technology pioneer Kevin Ashton to describe a system in which objects in the physical world could be connected to the internet by sensors. Today, the Internet of Things has become a popular term for describing scenarios in which Internet connectivity and computing capability extend to a variety of objects, devices, sensors, and everyday items.

While the term "Internet of Things" is relatively new, the concept of combining computers and networks to monitor and control devices has been around for decades. By the late 1970s, for example, systems for remotely monitoring meters on the electrical grid via telephone lines were already in commercial use. In the 1990s, advances in wireless technology allowed "machine-to-machine" (M2M) enterprise and industrial solutions for equipment monitoring and operation to become widespread. Many of these early M2M solutions, however, were based on closed purpose-built networks and proprietary or industry-specific standards, rather than on Internet Protocol (IP)-based networks and Internet standards.[1]

II. WHAT IS INTERNET OF THINGS?

The Internet of things (IoT) is the inter-networking of physical devices, vehicles (also referred to as "connected devices" and "smart devices"), buildings, and other items—embedded with electronics, software, sensors, actuators, and network connectivity that enable these objects to collect and exchange data.[1][2][3] In 2013 the Global Standards Initiative on Internet of Things (IoT-GSI) defined the IoT as "the infrastructure of the information society." [3] The IoT allows objects to be sensed and/or controlled remotely across existing network infrastructure,[4] creating opportunities for more direct integration of the physical world into computer-based systems, and resulting in improved efficiency, accuracy and economic benefit in addition to reduced human intervention.[5][6][7] When IoT is augmented with sensors and actuators, the technology becomes an instance of the more general class of cyber-physical systems, which also encompasses technologies such as smart grids, smart homes, intelligent transportation and smart cities. Each thing is uniquely identifiable through its embedded computing system but is able to interoperate within the existing Internet infrastructure.

Typically, IoT is expected to offer advanced connectivity of devices, systems, and services that goes beyond machine-to-machine (M2M) communications and covers a variety of protocols, domains, and applications. The interconnection

PREVENTIVE HEALTHCARE APPLICATION FOR DIABETIC PATIENTS AT HOME USING SMARTPHONE

Ms. Shalvi Mali & Ms. Samiksha Patil, Mrs. Shagupta M. Mulla,
U.G. Student, Department of Computer Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur,
India.
Assistant Professor, Department of Computer Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur,
India.

Abstract: Recently, the number of patients with diabetes mellitus (DM) has been increasing. Because DM causes many complications, it is important for patients with DM to control their blood sugar levels. However, there is not an effective method for the patients to manage their blood sugar levels at home. Therefore, we developed a home support system for the patients by which the patient can accumulate various biological measured data and send the data to a medical institution. At the institution, a physician can check the data and provide instructions via e-mail to the patient at home.

Keywords: web server

1. INTRODUCTION

We propose a computational model for the purpose of providing patient-specific reminders, advice and action-items in preventing the development of diabetic foot in diabetic patients. Recently, the number of patients with diabetes mellitus (DM) has been increasing. Because DM causes many complications, it is important for patients with DM to control their blood sugar levels. However, there is not an effective method for the patients to manage their blood sugar levels at home. Therefore, we developed a home support system for the patients by which the patient can accumulate various biological measured data and send the data to a medical institution. At the institution, a physician can check the data and provide instructions via e-mail to the patient at home.

The system is composed of a smart phone used by the patient, a server installed at the medical institution and a personal computer (PC) used by the physician. The patient measures data such as weight, blood pressure, blood sugar, etc. at home and send these data to the server using the smartphone. The physician can check the patient data, including a medical and medication history, and provide instructions.

The system is aimed at both: (i) patients who would like to manage their illness efficiently by being informed and alerted to the significance of any change(s) they detect in their feet and (ii) healthcare professionals who can disseminate their knowledge to patients more effectively, and thus prevent the development of diabetic foot, which may cause the premature death of diabetic patients.

This system is composed of a smart phone for the diabetic patients at home, a personal computer (PC) operated by a physician and a web server installed in the medical institution as shown in Fig. 1. Diabetic patients can enter their measured data, such as blood sugar levels and insulin administration, into the smart phone and check their compliance with instructions for prescribed medications.

CLOUD BASED PARKING SYSTEM USING RFID

Ms. Shubhangi S. Magdum, Ms. Komal K. Surve,
Ms. Monika M. Gaurv, Ms. Shilpa S. Magdum, Mrs. Shigupta M. Mulla,
U.G Students, Department of CSE, Bharati Vidyapeeth's College Of Engineering, Kolhapur
Assistant Professor, Department of CSE, Bharati Vidyapeeth's College Of Engineering,
Kolhapur

Abstract: This project gives an idea about algorithm that maximizes the efficiency of smart parking system using RFID and the cloud technologies. Here we have used Google map to check the geographical location of user. This project allows users automatically find available parking slot at the low cost depend on latitude and longitude of user. This project calculates user's parking cost by assuming the total number of available places in each car parking. Here user will search a free parking slot. After receiving a request from user and if the current car parking slot is full then this system suggests a new car parking slot. It is possible to implement the proposed project in the real world.

Keywords: - RFID, cloud technology, parking area

I. INTRODUCTION

In the traffic management systems, a parking system was created to minimize the cost of people. Nowadays, the normal method of searching a parking slot is manual where the driver normally searches a slot on the road by luck and experience. This method takes too much time and efforts and cause of worst case that failing to find any park slot. The alternative is to search specific car park with maximum capacity. This is not a normal solution because the car park will be far away from the user destination.

In recent years, research has used vehicle-to-infrastructure interaction with the support of various wireless network technologies such as radio frequency identification (RFID), wireless mesh network, and the Internet [2]. This project provides information about nearest parking area for the user and making reservation using smart phones or tablet. To solve the manual car park problems and take benefit of the technology, the Internet used for many reasons as well as used in smart parking system. This project develops an effective smart parking system using RFID and cloud technologies. So this project builds each car park as a network, and the data include the GPS location. This project also implements system in an open-source platform by using RFID and cloud.

II. EXISTING SYSTEM

The common method of finding a parking space is manual space where the driver usually find a space in the streets through luck and experience. This process takes time and effort, and may lead to worst case of failing to find any parking space, if the driver is driving in city with high vehicle density.

TEST PORTAL USING MOBILE AD-HOC NETWORK

Shivani Phutane, Mr. S. B. Patil
Email:phutane.shivani7@gmail.com

U.G. Student, Department of Computer Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur,
India.

Assistant Professor, Department of Computer Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur,
India.

ABSTRACT: Test planner portal application will be implemented in android technology. The main aim of our application is to provide question bank required for student during studies. So no need to search for question papers on internet. This application is also helpful for teacher to set the paper for examination. Our application will save time as well as money required to buy the question bank books.

Keywords: Test Planner

I. INTRODUCTION

Examination method is important for students and education institutions to evaluate the student's performance. Exam preparation is very important and challenging for every student. In today's age, education is the most important way of achieving success. When we discuss education, it is imperative to mention tests and examination. Examinations prepare students in their quest for knowledge. So, having a proper examination paper and format is quite necessary [2].

In today's world, time is a major concern. Any product that can effectively reduce time and power consumption is accepted and appreciated. Thus we are presenting the test planner portal that can reduce time consumption by replacing the conventional method of question bank generation. It also needs lesser man power.

This is a challenging era due to the growth in the field of computer science and demand we are facing today. Hence examinations play a vital role in testing student's performance. And that is why it is important to have a smart development question model for growth of students as well as to test their learning skills thereby keeping a check on student performance [13]. Generating an effective question paper is a task of great importance for any educational institute. The traditional method, where lecturers manually prepare question paper, is very tedious and challenging. Hence, with the help of this test planner portal we present the solution that will help in generating question paper has been manual.

Today's world has influence of e-learning and e-education. In our proposed system, we are going to develop the test planner portal system for students help to search and download the previous year question papers. Test planner portal provides more benefits to students that make learning fast and appropriate. Before the development of the e-learning system, the main problem was that students had to gather the previous year question papers from library, friends and senior students. To produce e-question bank application is a necessity needed for students. We are decided to make test planner portal application for mobile because mobile is that it provides timely access to information from anywhere and help to provide fast result [9].

Test planner portal is used to implement question bank based software for educational practice which will be better than regular book practice. As we see usage of computers and software are increasing in present trend developing this education software will be very helpful for students.

Using test planner portal application test system will be simplified and using of manual question finding system will be reduced, this is best practice for reducing paper usage, educators and students can save lot of time. This application will help educators to evaluate candidate's standard using this readymade question bank.

Traditional paper based exam system has been practiced as a yard stick to measure the level of understanding by the students in their subjects. It has been an indicator to judge the student's knowledge. This paper based examination involves lot of human effort and consumes adequate time in conducting and assessing also there is difficulties in storing and maintaining huge records [2].

A SURVEY ON RARE SEQUENTIAL TOPIC PATTERNS

Ms. Bhakti G. Patil, Mr. Sachin B. Takmare

P.G. Student, Department of Computer Science & Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

Assistant Professor, Department of Computer Science & Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

Abstract: Many text documents are created and distributed in many different formats. Most of the work is dedicated to topic modeling and creation of individual topics where the sequential relation between the topic in sequential documents published by same user is ignored. In this paper, we are tried to characterize and detect personalized and abnormal behaviors of users, for that first we propose Sequential Topic Patterns (STPs) and then formulate the problem of mining User-aware Rare Sequential Topic Pattern (URSTPs) in documents. Patterns are rare on the whole but relatively frequent for specific users so can applied for real-time monitoring on abnormal user behaviors. We are using a group of algorithms to solve such an innovative mining problem using three phases: preprocessing to extract topics and identify sessions for different users, generating all the STP candidates with (expected) support values for each user by pattern-growth, and choosing URSTPs by making user-aware rarity analysis on derived STPs. Experiments on both real (Twitter) and synthetic datasets can be performed to discover special users and interpretable URSTPs effectively and efficiently, which reflect users' characteristics.

Keywords: pattern growth, dynamic programming, rare patterns, sequential patterns.

1 INTRODUCTION

Textual Document streams are created and scattered such streams may include news, emails, chatting messages etc. Content of such streams specifies some particular topic which reflect events and users characteristics. To mine such streams, text mining researches focused on extracting topics from document collections and document streams using different probabilistic topic models, such as PLSI [1], LDA [2].

These extracted topics in document Streams are used for the creation of individual topics to detect and predict social events and user behaviors [3], [4]. Some researches concentrates on the correlations between different topics created successively and documents are published by a same user.

For the characterization of user behaviors in published document streams, we study on the correlations between extracted topics from these documents, mainly the sequential relations, and refer them as Sequential Topic Patterns (STPs). Each document stream gives the complete and repeated behavior of a user when that user is publishing a series of documents, then it is suitable to deduce users characteristics and psychological statuses.

For a document stream, some STPs may occur frequently and reflects common behaviors of users. Away from that, there may still exist some globally rare patterns for the general population, but occur for some specific user or some specific group of users. We refer them as User-aware Rare STPs (URSTPs). Compared to frequent ones, discovering them is especially interesting and significant. Practically, it can be applied in many real-life scenarios of user behavior analysis.

The innovative and significant problem of mining URSTPs in document streams, we try to follow some steps. First, the input of the task is a textual stream. Then a preprocessing phase is necessary and crucial to get abstract and probabilistic descriptions of documents by topic extraction, and then to recognize complete and repeated activities of users by session identification. Second, in case of real-time applications, both the accuracy and the efficiency of mining algorithms are important and should be taken into account. Third, the user aware rare pattern can effectively characterize most of personalized and abnormal behaviors of users.

Sequential pattern mining is an important problem in data mining. The concept of support is the most popular measure for evaluating the frequency of a sequential pattern, and is defined as the number or proportion of data sequences containing the pattern in the database. Many mining algorithms have been proposed based on support, such as PrefixSpan [6], FreeSpan [7] and SPADE [8]. They discovered frequent sequential patterns whose support values

A SURVEY ON MULTI THREADED CONTROLLER-FORWARDER QoS ARCHITECTURE FOR MULTIMEDIA OVER SDN

Ms. Pooja A. Buleghate, Mr. Sachin B. Takmane

P.G. Student, Department of Computer Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

Assistant Professor, Department of Computer Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

Abstract - Software-defined networking (SDN) is a way to [computer networking](#) that allows network administrators to manage network services through abstraction of higher-level functionality. This is accomplished by separating the system that makes conclusions about where traffic is sent (the [control plane](#)) from the systems that forward traffic to the selected destination (the [data plane](#)). Software defined networking is an emerging architecture that is dynamic, manageable and cost effective. This paper presents an overview of several techniques to improve the QoS of multimedia and we propose a novel approach to improve QoS of multimedia using multi-threaded controller-forwarder mechanism over SDN. We will apply this mechanism to streaming of layered videos which will provide a better QoS to videos and will perform faster than single controller-forwarder mechanism.

Keywords – SDN, QoS, Multimedia streaming, and OpenFlow.

1. INTRODUCTION

Streaming media is multimedia which is continuously awarded to and received by an end consumer while being delivered through a provider. With streaming media, a consumer does no longer have to wait to download a file to play it. As the media is sent in steady stream of data so as to play as it arrives. The current Internet architecture, which is developed for best effort data transmission, cannot make any assurance about end-to-end delay of a packet or the delay variation (jitter) between sequential packets which are crucial for media streaming [1]. In order to permit the network to sustain some level of Quality of Service (QoS) for multimedia traffic, the Internet Engineering Task Force (IETF) proposed several QoS architectures, like IntServ [2] and DiffServ [3], still none has been globally implemented and truly successful. This is because they are built on top of the current Internet's distributed hop-by-hop routing architecture lacking the end-to-end information of available network resources.

OpenFlow is a successful Software Defined Networking (SDN) paradigm that separates the control and forwarding layers in routing. SDN is an emerging architecture that is dynamic, manageable and cost effective. It is the physical separation of the network control plane from the forwarding plane and where a control plane controls several devices. This is achieved by shifting routing control functions from network devices to a centralized unit, called controller, while data forwarding function remains itself in the routers, called forwarders. The forwarders are organized via the OpenFlow protocol, which defines the communication between the controller and forwarders.

After a while, numerous application defined Networking conventions will quite often increase, yet for the present, the OpenFlow is most often utilized as a part of SDN. In a conventional approach, switches manage both high-level routing (the control plane) and packet forwarding (the data plane). In SDN, the control plane is decoupled from the physical system and set into a centralized controller. These controllers use OpenFlow to correspond with all components on the system. Countless community device retailers have effortlessly began to provide OpenFlow-empowered switches or routers. Hence, SDN or OpenFlow will incrementally spread all by means of the arena quicker rather than later as new OpenFlow empowered switches are dispatched. OpenFlow has additionally attracted the awareness of countless organizations providing cloud administrations, and it's going to further permit system administration suppliers to present inventive multimedia administrations with gradually reconfigurable QoS. This is the fundamental concept behind using OpenFlow architecture in this work. Yet, present OpenFlow specification does not provision communication between different controllers managing separate network domains. It is important

PRIVACY PRESERVING PUBLIC AUDITING WITH DATA DEDUPLICATION IN CLOUD COMPUTING

Ms. Neha M. Gondkar, Mr. Rahul P. Mirajkar

P.G., student, Department of Computer Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Assistant Professor, Department of Computer Science & Engineering, Bharati Vidyapeeth's College of
Engineering, Kolhapur, India.

Abstract: Storage represents one of the most commonly used cloud services. Data integrity and storage efficiency are two key requirements when storing users' data. Public auditability, where users can employ a Third Party Auditor (TPA) to ensure data integrity, and efficient data deduplication which can be used to eliminate duplicate data and their corresponding authentication tags before sending the data to the cloud, offer possible solutions to address these requirements. Here, we propose a privacy-preserving public auditing scheme with data deduplication. Our analytical and experimental results show the efficiency of the auditing by reducing the number of pairing operations need for the auditing.

Keywords: Deduplication, CSP (Cloud service provider), TPA (Third party auditor).

IX. INTRODUCTION

In today's world everything is associating with internet in some or other ways. People are using different applications for there case in day today work. These applications are nothing but generating and playing with big amount of data. In many applications users may or may not need this data in future. Not all of them can afford to store and manage the large amount of data. Cloud service providers provide infinite amount of space to these users to store there on cloud. There are many aspects regarding the storage of the data on cloud such as management of the data, security of the data, processing on stored data etc. One of the dominant aspect is security. Cloud service provider only stores the data but many users want their data to be secure many times. For example the application storing the data about the call details of the person may demand the security of the data. So they need some encryption algorithm which makes there data secure hence the stored data is generally in encrypted form.

Though providers have very large storage space they need to have utilization of this space as high as possible. To increase storage efficiency, storage providers often identify and remove redundant data and keep only one copy of each file (file-level deduplication) or block (block-level deduplication). Data deduplication may occur before the data is transmitted to the cloud or after data transmitted. Different users can store data under different encryption technique so there are very good chances to find duplicate data on cloud which will definitely reduce the utilization of space. Data deduplication scheme can solve this issue. Deduplication eliminates duplicate copies of data. To make deduplication possible we need some confluent encryption scheme which will generate exactly same ciphertext for same files.

One more significant functionality that users want with huge data storage is mechanism to access that data. Access control gives access to data only to the users who are authorized to access the particular service. For example nowadays users share their personal data on social networking applications and they assign authority to only limited group of people to access their data. Here implementation of some access control mechanism can take care of this.

Again user always need the exact copy of data which he stores on cloud. Therefore privacy of the stored data is very necessary. Privacy can be determined by checking the integrity of the data. At any point of time user can feel that the data has been altered and he may want to crosscheck for the integrity of the data. Here in this case user do not have trust on provider. If provider provides the privacy of data then the user can be assure to outsource there data on cloud.

Existing System

Mingjun Wang [1] explains how duplicate data stored on cloud under different encryption scheme decrease the utilization of storage space specially for big data storage which results from IOT applications. It explains the

Implementation of FIR filter using VLSI.

¹Mr. Sangram Patil,² Mr. Prithviraj Patil,³Mr. Indrajit Patil

^{1,2,3}Students, Department of Electronics and Telecommunication
Bharati Vidyapeeth's College Of Engineering,
Kolhapur.

¹patilsangram40@gmail.com²patilprithviraj1995@gmail.com³indrajitpatil494@gmail.com

⁴Prof. Sachin Jadhav

⁴Assistant Professor, Department of Electronics and Telecommunication
Bharati Vidyapeeth's College Of Engineering,
Kolhapur.

⁴sachin30_2k6@rediffmail.com

Abstract—A filter is used to pass a specific band of frequency. Depending on the response of the system, digital filters can be classified into Finite Impulse Response (FIR) and Infinite Impulse Response (IIR). Digital filters are widely used in many digital signal processing applications. Therefore digital filtering is one of the basic need of digital signal processing. Using windowing and sampling method FIR filter is designed. This paper introduces the definition and basic principle of FIR digital filters and design is based on VLSI.

Keywords— FIR filter, hamming window, FPGA.

1. Introduction

Finite impulse response (FIR) filters are used in Digital Signal Processing applications. Accuracy in filter Designing is based on the Multiplication and accumulation of filter coefficients. Filters are digital filter whose response to the unit filter (Unit Sample Function) is finite in duration. This is in contrast to infinite impulse response (IIR) filters whose response to unit impulse is infinite in duration FIR filter can be implemented using either recursive or non-recursive techniques, but usually non recursive technique are used.

FIR has following advantage over IIR Filter

- FIR filter is Finite IR filter and IIR filter is Infinite IR filter.
- FIR filters are non-recursive. That is, there is no feedback involved. Where as an IIR filter is recursive. There is feedback involved.
- The impulse response of an FIR filter will eventually reach zero. The impulse response of an IIR filter may vary well keep "ringing" ad-infinitum.
- IIR filters may be designed to accurately simulate "classical" analog filter responses where as FIR filters, in general, cannot do this.
- FIR filter has linear phase and easily control where as IIR filter has no particular phase and difficult to control.
- FIR filter is stable and IIR filter is unstable
- FIR filter depend only on IP where as IIR filter depend upon both IP and Op
- FIR filter consist of only zeroes and IIR filter consist of both poles and zeroes.

1.2 Structure of FIR filter

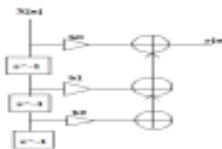


Fig.1 Structure of FIR filter

The goal of our project is to create a 4 tap FIR filter in VHDL. The goal is to get familiar with the tool chain and create the necessary components using Xilinx's Core Generator.

PENDRIVE TO PENDRIVE DATA TRANSFER WITHOUT USING PC

Mr. Ashutosh P. Beraudi, Pro V. Vinay S. Mandlik

U.G. Student, Department of Electronics and Telecommunication Engineering, Bharati Vidyapeeth's College
of Engineering, Kolhapur, India.

Assistant Professor, Department of Electronics and Telecommunication Engineering, Bharati Vidyapeeth's
College of Engineering, Kolhapur, India.

ashutoshberaudi@gmail.com

vinaymandlik@gmail.com

ABSTRACT

Generally, we used to transfer data between two pen drives by using laptops or desktops. But it is not always possible to carry such a large size device to the particular location. So to overcome this problem, we are designing a hardware which is more compact to carry anywhere. With the help of this project we can not only transfer the data but also we can see the transfer of the particular file which we want to send by using LCD display. In our project we are transferring the data between two pen drives without using any computers or laptops. We have designed a project which is known as pen drive to pen drive data transfer, and pen drives to mobile in which we will be transferring the data between two pen drives and pen drives to mobile using ARM processor.

Keyword: ARM Processor, Rik machine.

I. INTRODUCTION

Several data and application are developed daily which common computer user has to transfer from one USB Flash device into another, with the minimum wastage of time. For this user has to first find a computer then wait for it to boot up, then plug in his device, and then transfer the data. Carrying a computer or a laptop just for the sake of data transfer is not affordable these days in the age when people want all devices to be handy. More-over, data via a computer involves a lot of power to be wasted, since the computer has to be entirely functional before it can transfer data.

Also, the threat of viruses and malware has made the life of computer users more complicated. These viruses get activated as soon as the device is plugged into the system and get copied along with other data from one flash device into another. Our project here can provide a valuable solution to all problems faced by person in above situations. Our aim is to build a small and handy device to transfer data from one USB Flash device to another.

II. EXISTING SYSTEM

The idea of this project was taken, looking at the problems faced in daily life of Flash Drive Users to transfer the data from one disk to another. Carrying a computer or a laptop just for the sake of data transfer is not affordable these days in the age when people want all devices to be as small and handy as possible. Moreover, transferring data via a computer involves a lot of power to be wasted. There are numerous types of data transactions that are being carried out through these devices. However to operate these devices most of the times an operating system is required which calls for the hosts to be extremely complicated system hence accessing these devices requires complicated hardware, hence a controller that can handle the data transfer and initiates the USB transactions was searched.

III. PROPOSED SYSTEM

The system involves Pen drive to Pen drive data transfer Technique

A) Block Diagram

The Block diagram of device as shown in fig [1]. In this system we use the Raspberry pi, color touch screen display, Power supply, USB device and Bluetooth module.

USE OF ARC GIS & GLOBAL MAPPER IN PLANNING OF HYDRUALIC STRUCTURE

Mr.Digambar S.Patil, Mr.Vikas U.Jandkar, Mr.Umesh B.Misal,
Mr.Anil D.Bhaskar, Rajvardhan U.Jadhav, Mr.Vidyanand S.Kadam

Student, Department of Civil Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.
Professor, Department of Civil Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

Abstract: The present paper is based on using GIS software in a water shade management for planning of hydraulic structure. Geographic Information System (GIS) is a computer based decision making tool to plan, implement and govern the object. GIS is applicable to capture, store, manipulate, analyse and visualize diverse set of spatial data. Thus we use arc GIS & Global Mapper in planning of hydraulic structure. Such software we can implement in planning of micro water shades & reservoir. This paper attempts the calculation of storage capacity of reservoir behind the dam wall with global mapper software.

Keywords - ARC GIS (Geographic Information System), Water shade, Global map software & structures.

VI. INTRODUCTION

Watershed management means the process of creating and implementing plans, programs and project to sustain and enhance water shed functions that affect plants, and animals and human communities within watershed boundaries. water shed management is not so much about managing natural resources, but about managing human activity as it affects those resources. Effective water shade management to development can prevent community water shortages, poor water quality, flooding & erosion. The expense of undertaking of water shade management is far less than the cost of future remediation. For development of agricultural & drinking water resources the basic element required are land & water. Because of tremendous rise in population, organisation, industrialization & agricultural area resulting in steep incline water demand. Indian agricultural sector is mainly depending upon the monsoon. But last 3-4 years due to inadequate rainfall, people are looking towards the underground water as an alternative source.

VII. EXISTING SYSTEM

In old days manually process was used for watershed management project. Manual process is a very complicated and time consuming & uneconomical. The person or project team has to visit that particular place or site & to collect all the various required data which is useful to design the hydraulic structure. But in this manual process data contains various human errors & instrumental errors, which causes lots of problems to design such structures. Therefore it is an uneconomical process which consumes lots of time, money & human efforts.

In the manual process the first gives an overall introduction and explains what preparatory work is needed such as visit to project site, conduct survey, identification of watershed problem. The second part start with calculation of storage elevation curve, mass elevation curve for the construction of reservoir, check dams, bunds etc. For this process required more time as well as more manual efforts.

USE OF QGIS FOR ROOFTOP RAIN WATER HARVESTING AT SIDHIGIRI MATH

Ms. Tejaswini A. Jadhav¹, Ms. Sayali Beharadikar², Ms. Yogita Rajagolkar³
Mr. Sachin Swarni⁴ Prof. Mr. Vidyasand S. Kadam

UG Students, Department Of Civil Engineering, Bharati Vidyapeeth College of Engineering, Kolhapur,
India

Assistant Professor, Department of Civil Engineering, Bharati Vidyapeeth college of Engineering, Kolhapur, India

Abstract- Rainwater harvesting from rooftops of houses used to be an ancient practice in arid zone. It is a welcome practice in the rural areas especially where the rainfall is very scanty and the stress on groundwater has been increasing and recharges area has been decreasing continuously. Roof water harvesting was practiced, as a matter of necessity, mostly in the low rainfall areas of the country, having annual rain fall less than 500 mm per year. The rainwater that falls on the surface / rooftop is channeled to bore wells or pits or new / old abandoned well through small diameter pipes to recharge. It has been observed that modern constructed houses both in rural and urban areas no provision for the collection and storage of roof water has been made.

In this paper potentiality of Rain Water Harvesting is worked out for Kaneri math, Jagal. The tool of Rain water harvesting i.e. Roof top Rainwater Harvesting in Storage Tanks is considered. The present paper uses a QGIS approach to assess total area of catchments available for rain water harvesting in Kaneri Math area of Jagal, Kolhapur district and calculate the amount of water which could be really harvested and the water is stored in tanks separately and these water is then used for the drinking purposes.

Key Words- QGIS Software, Rooftop rainwater harvesting system

I. INTRODUCTION

Rainwater harvesting from rooftops of houses used to be an ancient practice in arid zone. It is a welcome practice in the rural areas especially where the rainfall is very scanty and the stress on groundwater has been increasing and recharges area has been decreasing continuously. It has been observed that modern constructed houses both in rural and urban areas no provision for the collection and storage of roof water has been made. The increase population growth and inefficient system of distribution of Municipal Corporation and Grampanchayat water supply have led to seasonal scarcity of domestic water supply in practically all the rural and urban agglomerates. Traditionally, the rainwater collected from roofs was always stored in stomp. In modern days, the roof water is stored in a stomp or recharged into the local aquifer. This kind of practice directly used for recharging the local aquifer has been becoming popular both in urban and rural areas as best way for mitigating the water scarcity.

The selected study area is Kaneri Math, where rooftop rainwater harvesting is an economical.

II. STUDY REGION

The selected area fall in Jagal Taluka where Kaneri Math is developed as a tourist place and residential ashram for students and working staff.

The total area of the Math is 240 hectares (ha) out of which, about 55 ha surrounding the village.

Figure 1: Downloaded Image from Google

This area falls in the rain shadow zone of western Ghats receiving an average rain fall of 700 mm.

IMPLEMENTATION OF SWOT ANALYSIS FOR CONSTRUCTION PROJECT : A REVIEW

Kiran Shinde ¹, Onkar Chote ²

U.G. Student, Department of Civil Engineering, Bharati Vidyapeeth College of Engineering, Kolhapur,
Maharashtra, India ^{1,2}

Abstract: SWOT analysis is an essential tool which is used in a construction company. SWOT analysis shows a critical risk in the planning. As per construction project SWOT analysis is done by contractor or investor point of view. SWOT analysis is used from 1960s appliance to help in various planning of construction industries. The project in this paper shows the study of SWOT analysis and improves the plans of Construction Company. SWOT analysis shows the profit or loss in construction management. SWOT analysis provides a long term successes in construction project. SWOT analysis is done for management effectiveness in construction companies. In this paper reviews are collected, related to SWOT.

Key words: Swot analysis, project delay, project management.

IX. INTRODUCTION

SWOT analysis refers as strengths, weaknesses, opportunities, threats. SWOT analysis solves the internal and external risk of construction project company. Risk management is important tool in Construction Company to loss or profit the project. Risk management demand determining the goals and uncertainty of construction company. During construction work new techniques of SWOT identify and implement it to achieve the goals. Now a day modern techniques are used to develop long term goals in competitive world. Similarly in the construction site and strategic planning have been recommended. Research shows that the construction company should conduct new techniques. (IGOR N. MILLOSEVIC, april 2013).

SWOT ANALYSIS

By using following points, SWOT analysis is implemented on construction project.

- Strengths - To achieve the new techniques in competitive world.
- Weaknesses - To stop the objective of project.
- Opportunities - External factor achieve the project goals.
- Threats - External factor that could damage the project goals.

The SWOT analysis is also carried out in following

- Training and capacity building.
- Research and education.
- Public awareness and media.
- Organization development.

II. STATEMENT OF PROBLEMS

In the strategic planning, SWOT analysis is essential part of achieving the goals, the following research are carried out?

1. Why project delay and project abandonment developed? And what are the affects on project because of delay?
2. What is SWOT? And What is role of SWOT analysis in construction project?
3. What are the merits and demerits of SWOT analysis in construction management? (Achik & L. Nicholas, 2015)

PARAMETERS OF UNDERGROUND WATER

Miss. Rajashree S. Desai, Mr. Manoj M. Khedekar, Miss. Anjali U. Gargare, Miss. Sonali G. Chougale,
Satish S. Karbhale, Prof. V. S. Tiwari.

U.G. Student, Department of Civil Engineering Bharati Vidyapeeth's College of Engineering Kolhapur,
India.

Assistant Professor, Department of Civil Engineering Bharati Vidyapeeth's College of Engineering
Kolhapur, India.

Abstract: - It is known fact that clean water is completely essential for healthy living. Yet there is a scenario that millions of people worldwide are deprived of this due to over exploitation, poor management systems & ecological degradation. Underground water is most useful water sources. Water is most essential for organisms. People can survive longer without food, but cannot survive without water more than 4 days. The assessment of the ground water quality was carried out in the different areas. The present work is aimed at assessing the water quality index (WQI) for the ground water. The ground water samples of all the selected stations from the areas where collected for a physicochemical analysis. For calculating present water quality status by stoical evolution and water quality index following parameters have pH, Alkalinity, Hardness, Chloride Content, Temperature, Acidity, MPN, Suspended solid, Dissolved solid, etc. The obtained results are compared with Indian standards drinking water specification IS: 10500-2012. The studies of physicochemical characteristic of this ground water sample suggest that the evolution of water quality should be carried out periodically to protect the water resource. Hence Priya P Loni, T.J.Patil, Manglikar published papers related with physicochemical parameters of underground water. Because to find the problems related with ground water parameters. Also giving the remedial to overcome the pollution of underground.

Keywords: - Ground water, water quality standards, water quality index

1. INTRODUCTION

Underground water is one of the natural source of pure and clean water that sinks into the soil and is stored, slowly flows and renewed underground water reservoirs. Ground water is mostly chemically non polluted when drawn from greater depth. Human beings have made aquifer as their prime requisite due to unavailability of reliable source of water as that of the ground water. So during past several decades, ground water quality has emerged as one of the most important and confronting environmental issue. Ground water forms a major source of drinking water supply for both urban and rural people in India. It accounts for about 85% safe drinking water in rural areas, where the population is widely dispersed. The use of ground water is not only confined to consumption purpose but also for irrigation in agricultural fields and in industrial processes. This use is increased with improved assessment and advances in pumping techniques demands made upon ground water in the recent years are increased considerably. The surface water is being polluted at rapid rate thus, the ground water extraction is increased. Ground water exploitation, its misuse and pollution is becoming more serious. In India, about 6 million people suffer from fluoride contamination and the source for most of the fluoride in ground water is of geological origin. Protection of ground characteristics, the quality of water that is its physicochemical characteristics should also be taken into consideration. The main objective of the present work was to assess the ground water quality in Kolhapur city. From the above discussion, it is known that ground water is very important for the domestic, industrial purposes. Necessary to use ground water very properly and important to check the quality of groundwater parameters.

REVIEW ON SCAFFOLD FORMATION BY ELECTRO SPINNING TECHNIQUE IN BIOMEDICAL FIELD

Aniket Patil, Onkar Tambekar, Amit Nawale, Prof. Sunil J. Kadam

U.G. Student, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Associate Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of
Engineering, Kolhapur, India.

Abstract: Electrospun nano fibers have increasingly attracted attention to be used as new generation tissue Engineering scaffolds since they have the nano fibrous structure. This paper gives the review of research on electrospun nano fibers for tissue engineering. In this paper it is shown that scaffold can be form by electrospinning technology which may use in medical applications. The tissue engineering strategy is to facilitate the regrowth of nerves by combining an appropriate cell type with the electrospun scaffold. Electrospinning can generate fibrous meshes having fibre diameter dimensions at the nano scale and these fibres can be non woven. The nano fibre scaffolds have been used for skin, nerve and blood vessel tissue engineering.

Keywords: Scaffold, Electrospinning, nanofibres, Tissue Engineering, Nanotechnology .

I. INTRODUCTION

Electrospinning is a very efficient method for tissue scaffold manufacturing to produce a nonwoven mesh of micron-sized to submicron-sized fibers. Many researchers have generated various types of scaffolds for human tissue and organ regeneration, including bone, dentin, collagen, liver, cartilage, and skin. Electrospun nanofibers have been used in making these scaffolds. These electrospun nano fibers are used to repair, replace and enhance the properties of the tissues. The electrospun nano fibers, which are used in the scaffold, need to be well designed and must have uniformity of dimension. In addition, other requirements such as high porosity large surface area, biodegradability, the ability to maintain structural integrity with tissue, good mechanical properties, non-toxicity to cell and biocompatibility are also important in tissue engineering while using electrospinning. Central and peripheral nervous system injuries may benefit from the use of neural tissue engineering strategies that use scaffolds to facilitate the regrowth of nerves. Each individual nano-scale fiber has a high surface to volume and aspect ratio allowing for more surface area contact of the scaffold with the cell. The physical and biological properties of the scaffold are dependent on the material used for electrospinning and its properties such as density, molecular weight, temperature. The overall goal of the public distribution system.

II. ELECTROSPINNING TECHNOLOGY

In the electrospinning process, an electrostatic force is applied to a polymeric solution to produce nanofiber with diameter ranging from 50 nm to 100 nm or greater. Due to surface tension the solution is held at the tip of syringe. Polymer solution is charged due to applied electric force. In the polymer solution, a force is induced due to mutual charge repulsion that is directly opposite to the surface tension of the polymer solution. Further increase in the electrical potential leads to the elongation of the hemispherical surface of the solution at the tip of the syringe to form a conical shape known as Taylor cone. The electric potential is increased to overcome the surface tension forces to cause the formation of a jet, ejects from the tip of the Taylor cone. Due to elongation and solvent evaporation, charged jet unstable and gradually thins in air primarily. The charged jet forms randomly oriented nanofibers that can be collected on a stationary or rotating

ELECTRO SPINNING TECHNIQUE IN ENERGY TRANSMISSION APPLICATION

Amita Patil, Pallavi Shinde, Prof. S J Kadam

U.G. Student, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

Associate Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

Abstract: Electrospun nanofibres have increasingly attracted attention to be used as new generation energy transmission application since they have the nanofibrous structure. This paper gives the review of research on electrospun nanofibres for energy application. In this paper it is shown that Fuel cell can be form by electrospinning technology which may use in energy applications. The energy engineering strategy is to facilitate the growth of renewable energy application. Electrospinning can generate fibrous meshes having fiber diameter dimensions at the nanoscale and these fibres can be nanowoven. The nano fibre have been used for fuel cell and solar cell.

Keywords: -Nanotechnology, Fuel cell, Solar Energy.

1 INTRODUCTION

The application of nanotechnology to energy transmission has the potential to significantly impact both the deployed transmission technologies and the need for additional development. This could be a factor reducing environmental impacts of right-of-way (ROW) development and use. For example, some nanotechnology applications may produce materials (e.g., cables) that are much stronger per unit volume than existing materials, enabling reduced footprints for construction and maintenance of electricity transmission lines. Other applications, such as more efficient lighting, lighter-weight materials for vehicle construction, and smaller batteries having greater storage capacities may reduce the need for long-distance transport of energy, and possibly reduce the need for extensive future ROW development and many attendant environmental impacts. This report introduces the field of nanotechnology, describes some of the ways in which processes and products developed with or incorporating nanomaterials differ from traditional processes and products, and identifies some examples of how nanotechnology may be used to reduce potential ROW impacts. Potential environmental, safety, and health impacts are also discussed.

1.1 ELECTROSPINNING TECHNOLOGY

In the electrospinning process, an electrostatic force is applied to a polymeric solution to produce nanofiber with diameter ranging from 50 nm to 100 nm or greater. Due to surface tension the solution is held at the tip of syringe. Polymer solution is charged due to applied electric force. In the polymer solution, a force is induced due to mutual charge repulsion that is directly opposite to the surface tension of the polymer solution. Further increase in the electrical potential leads to the elongation of the hemispherical surface of the solution at the tip of the syringe to form a conical shape known as Taylor cone. The electric potential is increased to overcome the surface tension forces to cause the formation of a jet, ejects from the tip of the Taylor cone. Due to elongation and solvent evaporation, charged jet unstable and gradually thins in air primarily. The charged jet forms randomly oriented nanofibres that can be collected on a stationary or rotating.

OPTIMIZATION OF ROLLER BELT CONVEYOR IN SUGARCANE INDUSTRY

Mr. Swarnand A. Dhanawade, Prof. S. J. Kadam, Prof. G. J. Pol

P.G. Student, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Associate Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Assistant Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Abstract: Material handling is most important part of the industry and it is consuming a considerable proportion of the total power supply in industry. Material handling system contains various types like Lifts, AGV's, Conveyors, etc. from that conveyors are used mostly in industries for continuous handling. Belt conveyor is used to transport material from one location to another. Belt conveyor is a commonly used equipment of continuous transport it has a high efficiency, large conveying capacity and it can be achieved at different distances, different materials transportation. The task of transportation within the conveyor belt systems can be defined as a process aimed at the transportation of the determined quantity of handled material within a defined period of time between the specified loading and unloading locations. It is significant to reduce the energy consumption or energy cost of material handling sector. This task accordingly depends on the improvement of the energy efficiency of belt conveyors, as these are the main energy consuming components of material handling systems. In this project the solution on more weight and power consumption is given. Hence in this project we are going to design the critical parts of roller belt conveyor used in sugarcane industry, i.e., roller, bracket, bearing, and frame of conveyor.

Keywords: - Material handling, energy

1 INTRODUCTION

Material handling is an important part of the industry and consuming a considerable proportion of the total power supply. Material handling system contains various types like Lifts, AGV's, Conveyors, etc. from that conveyors are used mostly in industries for continuous handling. Conveyors are further classified in various types like, belt conveyor, roller conveyor, chain conveyor, screw conveyor, pneumatic conveyor, roller belt conveyor, etc. Belt conveyor is used to transport material from one location to another. Belt conveyor is a commonly used equipment of continuous transport it has a high efficiency, large conveying capacity and it can be achieved at different distances, different materials transportation. Now a day's Belt conveyer or system not only used in mining industries but also applied in cement industries, power plant, food industries, production industries etc. So it is essential equipment for in house material transportation to day. It has high load carrying capacity, large length of conveying path, simple design, easy maintenance and high reliability of operation. Belt conveyor system is also used various industries such as the material transport in foundry shop like supply and distribution of moulding sand, moulds and removal of waste, coal and mining industry, sugar industry, agricultural industry, bagasse industry, fuel industry etc.

The task of transportation within the conveyor belt systems can be defined as a process aimed at the transportation of the determined quantity of handled material within a defined period of time between the specified loading and unloading locations. To ensure operational reliability of the conveyor system consisting of rollers, roller brackets, bearings, belt lines, in terms of kinematic, dynamic, and energetic conditions is a very challenging task.

The coal loading conveyors can produce noise levels that become an annoyance, especially at night time when the ambient noise levels are low. For these reasons decreasing the noise produced by conveyors is an important topic, and producing an idler roller that lowers the noise emission from the conveyor belt

THE NEW DEVELOPMENT OF CAD IN CLOTHING

Mr. Nikhil P. Bhosale, Prof. S. J. Kadim

P. G. Student, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Head of the Department, Mechanical Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur,
India.

Abstract- Modern CAD/CAM (Computer Aided Design & Computer Aided Manufacture) software provides faster and more efficient working systems through increased precision, productivity and organized information flow. Garment designing systems eliminate the tedious work involved in manual pattern drafting and grading, creation of layouts and relocation of written information. The computerization of different processes in the fashion industry is necessary to reduce the costs of a product and increase competitiveness. Computerized designing systems employ the use of software specifically designed for the development of industry specific objects, input/output of graphics, scanners and other remote devices. CAD is becoming popular due to its simplicity and accuracy in drawing opines. With CAD, the designs can be produced at a faster rate with more accuracy in drawings. Moreover, special drafting techniques can be employed and the design calculations are quick and superior. The introduction of CAD/CAM technology in the textile and fashion industry in the early 1980s resulted to improved efficiency of the design process due to automation of routine design tasks, increased productivity and shortened lead time in the product development process. This has led to the production of cheaper and better garments. However, successful use of CAD/CAM technology involves providing the right technology to suit the needs of the industry, to avoid inadequate or irrelevant training, or harmful attitudes among students towards these technologies. Some researchers argue that CAD/CAM technology requires a different kind of expertise than is needed for manual design. Thus, weaknesses of management skills in the use of technology seem to be a major barrier to a successful implementation of CAD/CAM. This includes the inability to estimate the learning needs of students in the current market. This is because considerable investments in training are required for effective CAD/CAM implementation. Clearly in today's global market, manufacturers must rely on new technologies to capitalize on current market trends. Thus, many institutions in the country have turned to educate their students on CAD/CAM systems to help develop and produce complex parts quickly and efficiently needed in the external market. In Kenya, this is true of Maseno University, University of Nairobi and University of Eldoret. First sewing machine was invented in the Victorian era, after the development of machine die class use to have a seamstress who stitched the clothes for them on sewing machine. Before sewing machines everything was done by hand. The seamstresses went to the home of the woman who wanted to stitch the clothes. As industrial revolution started in the 19th century, garment industry too began to evolve but it was in its infancy and had no developed system for garment manufacturing. Seamstresses observed that they can develop standard patterns which can fit more than one woman. They developed a mathematical sizing system to accommodate most women with very few patterns. As businessmen, interested in lowering cost, they continued developing these patterns to become paper "information systems" engineered to control quantities of exact reproductions in cutting and stitching clothing in mass production systems.

Keywords: Digital clothing, Artificial intelligence, viable technology

XX. INTRODUCTION

The apparel industry grew from these tailors/businessmen, as they built manufacturing factories for production, which pattern engineering accommodated. Pattern engineering grew a great industry in the early and mid-20th century. Pattern making was first taught to "apprentices" who were called "designers".

A 131

DESIGN AND MANUFACTURING OF SEMI-AUTOMATIC PAPER CUTTING MACHINE

Sandesh Kadam, Shekhar Sankpal, Prof.Sunil J. Kadam

U.G. Students, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering
Kolhapur,

Maharashtra, India

Head & Associate Professor of Department of Mechanical Engineering, Bharati Vidyapeeth's College of
Engineering Kolhapur, Maharashtra, India

Abstract In this paper, the design and development of semi-automatic paper cutting machine is presented. The machine is developed to achieve higher accuracy, compact and robust design for efficient use of floor space and to achieve independent action of paper holder and paper cutter. It refers to manual paper holder and paper size adjustment with electric power supply to activate cutting action makes it semi-automatic. The machine consists of electric motor, cutter, gears, belt and pulley, lead screw, handwheel and frame. It is also equipped with hardware sensors for safety purpose. It is capable of cutting stack of paper with very ease which is very useful in planning a path to the desired cutting destination.

Keywords: Paper, power supply, handwheel, cutter, machine.

INTRODUCTION

The paper cutting process is a main part of the all paper and printing industries. Paper is a thin material produced by pressing together moist fibers of cellulose pulp derived from wood, rags, or grasses, and drying them into flexible sheets. The evolution of the cutting machine has been rapid and distinctly marked in all its essential features, from the oscillating plough to the vertical stroke, to the shear stroke, to the double-shear stroke, from a single-end pull-down of the knife (by a chain, by a cam, or by a crank) to the two-end pull-down by cams, rolls, slots, slides, to the cranks which give a fixed dependable stroke, to the cranks which give a fixed dependable stroke, and at the same time pull the knife endwise; from swinging-link shear to a straight-line shear; from man-drive to power-drive; from driving by power fixtures in front and outside the frame to fixtures located back and underneath; from low piles to high piles; from hand clamp to power clamp, to self clamp, to automatic clamp, finally to friction adjustable pressure clamp. There is need to cut paper to give them the final desired size and form. Number of such machines are available in market with their unique design. This paper cutting machine is also has its unique features. With this paper cutting machine better accuracy can be achieved. In this machine the paper holder holds the paper first then cutter comes down to cut the paper i.e., an electric driven cutter and manual operated paper holder is provided, hence time for judging cutting edge increased and causing better accuracy. Its compact design makes it possible to use floor space efficiently.

DESIGN CALCULATIONS OF MACHINE

A REVIEW OF DESIGN IMPROVEMENT OF SP17 MIXED FLOW TYPE STAINLESS STEEL FABRICATED PUMP USING CFD

Ganesh Zanglikar, Pralhad Patole²

P.G. Student, Department of Mechanical Engineering, BVC College of Engineering Kolhapur, (MS), India¹,

Assistant Professor, Department of Mechanical Engineering, BV College of Engineering, (MS), India²

Abstract: SP17 mixed flow pump (Discharge 17000 L/hr at 8m head and 2800 rpm) is proprietary product of Grundfos pumps, Denmark. The VIRA Pumps Kolhapur is benchmarking this product. Study of SP17 Mixed flow pump carried out to reduce the problem in existing mixed flow pump by taking performance test in the testing laboratory of Vira Pumps, Kolhapur. In this test we find pump never crossed discharge of 15000 L/hr compare to original Grundfos design. Therefore it is necessary to redesign the impeller from first principle for performance enhancement for improvement in discharge. Hence study related to mixed flow pump performance is done in this paper. Effect on mixed flow pump efficiency, head, and discharge by changing parameters responsible related to it like suction diameter, width of impeller, vane profile number of vanes, inlet and outlet angles studied in this paper. Different reviews related to CFD analysis of mixed flow pump also taken into consideration.

Keywords: -Mixed flow pump, Submersible Pump.

INTRODUCTION

A submersible pump is a device which has sealed motor coupled to the pump body. The whole assembly of pump and motor is submergal in the water. It is used to lift water from bore well. The main advantage of this type of pump is that it prevents pump cavitations, which occurs mainly due to high elevation difference between pump and the fluid surface [1].

Mixed-flow pumps function as a compromise between radial and axial-flow pumps. The fluid experiences both radial acceleration and lift and exits the impeller somewhere between 0 and 90 degrees from the axial direction. As a consequence mixed-flow pumps operate at higher pressures than axial-flow pumps while delivering higher discharges than radial-flow pumps. The exit angle of the flow dictates the pressure head-discharge characteristic in relation to radial and mixed-flow [2].

With the objective of developing a small blood pump with a levitated rotor, we propose a design scheme for an axial-type self-bearing motor. The axial type motor which is basically composed of a disc motor and an axial magnetic bearing, controls both the rotation and the axial translation of the rotor. The proposed motor is similar to the bidirectional disc motor, except for changing the magnitudes of both sides of the flux to control the axial attractive force. However, the radial and tilt directions rely on passive stability and, therefore, the rotor has poor damping which might cause damage to blood constituents. The design includes a hydrodynamic bearing for improving radial support properties. Finally, to confirm its functionality, an experimental prototype of the proposed motor has been constructed and incorporated into a mixed flow blood pump. The results indicated that the bidirectional axial type self-bearing motor had high efficiency as a small continuous flow blood pump, delivering sufficient flow rate and pressure head [3].

Computational Fluid Dynamics analysis is one of the advanced tools used in the industry. A detailed CFD analysis was done to predict the flow pattern inside the impeller which is an active pump component. From the results of CFD analysis, the velocity and pressure in the outlet of the impeller is predicted. CFD analyses are done using Ansys software. These outlet flow conditions are used to calculate the efficiency of the impeller [4].

The three-dimensional flow field of the whole flow passage of a mixed-flow pump was numerically simulated by using CFD software on the basis of Spalart-Allmaras turbulent model according to the original design of the plant. Through analysing the calculation results, the reason why the flow rate of this pump cannot reach to the design requirements was found out. After replacing the impeller, a new pump impeller was optimally designed. The numerically simulation results show that the hydraulic performance of the newly designed impeller of the mixed-flow pump were obviously improved, and the engineering requirements of the owner were satisfied [5].

DESIGN AND DEVELOPMENT OF STEAM OPERATED JAGGERY MAKING SYSTEM

Mr. Satish S. Patil, Mr. Kartik P. Pol, Ms. Anuradha S. Khair, Ms. Pooja P. Sitre,
Ms. Pooja N. Garav, Prof Pravin D. Rajigare.

U.G. Student, Department of Mechanical Engineering, Bharati Vidyapeeth's College of
Engineering, Kolhapur, India.

Assistant Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of
Engineering, Kolhapur, India.

Abstract In India jaggery industry is one of the most essential parts of the industries. In every part process of jaggery making is same but there is design of plants. In jaggerymaking process heating method is important. In this paper proposed system to improve the production rate, increase the quality of jaggery. This proposed model is designed to control the process of manufacturing jaggery product. In this system first we have developed pan with its having heating from base with baffles, but cost of this system increases. Hence previous design is changed, therefore we have made new proposed design. The improved system and previous system are compared on the basis of lagane consumption, reduce pollution and increase quality of jaggery.

Keywords: Jaggery, Pan jaggery making unit, Steam, Sugarcane juice,

1 INTRODUCTION

Jaggery is natural, traditional, sweetener made by concentration of sugarcane juice. It contains all minerals and vitamins present in sugarcane juice and that is called as healthiest sugar in the world. It is rich in important minerals like salts: 2.8gm/100gm, whereas only 300mg/kg is obtained in refined sugar. Jaggery is rich in important minerals like calcium 40-100mg, magnesium 70-90 mg, potassium 1056mg, sodium 19-30mg, iron 10-13mg, zinc 0.2-0.4mg, Vitamin A-3.8 mg, Vitamin B1-0.01mg, vitamin C-7 mg, Vitamin D2-6.50mg, protein 280mg/100gm of Jaggery. This micro nutrients present in the jaggery possess antitoxic and anticarcinogenic property.

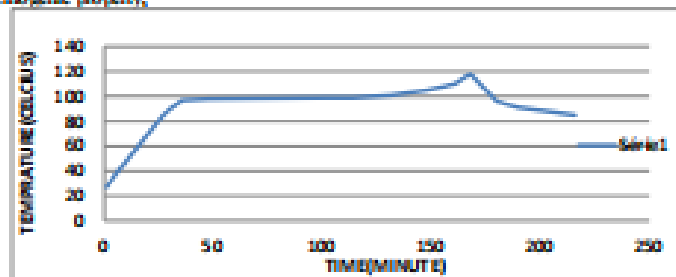


Fig: General temperature in jaggery making process

DESIGN OF PORTABLE THREE WHEELER

Prof. Avadhat R. Jadhav, Prof. Saji V. Kumbhar, Prof. Kedar K. Patil, Prof. Mahesh S. Shinge
Prof. Amit A. Desai

Assistant Professors, Department of Computer Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Abstract: In India, millions of cars are presently running on road. This might create several problems like traffic jams, parking problems etc. As population growth of India is tremendously large, the demand of individual person is also increased like they want their car cheap in cost and small in size. To overcome the problems of Traffic Jams, we developed the portable three wheeler. In this paper we discussed the design of the portable three wheeler. In this paper we discussed the design and analysis of the chassis and driving shaft.
Keywords: portable, suitcase

I INTRODUCTION

India is developing country, now a population of India is increasing day by day. This causes increase of demand of car, bikes, the use of cars/bikes, vehicle creates traffic problem, parking problem. The economy status of public is increased so now a days around 60% family have at least one car. So demand of current scenario is to develop the compact size automobile. To minimize the traffic and mainly parking problem, vital need to develop the compact automobile or foldable car.

To overcome the problem we designed and developed the portable three wheeler which is foldable. It is basically portable vehicle which is enclosed in suitcase.

II. SUITCASE CAR



The above is the picture of portable three wheeler. It is the vehicle which is enclosed inside the suitcase. Portable three wheeler is formed by attaching the various part present in suitcase. The various parts like wheels, hand seat, fuel tank are detachable type. The total 5 to 6 minutes require converting the suitcase into portable three wheeler.

It is car in closed in suitcase of dimension 780mmx560mmx320mm. It is powered by an 80cc two stroke engine, the vehicle holds enough fuel for around one hour of driving at speeds up to 25 km/hr. It is built around a small steel chassis and it steered by handlebar. The weight of current model is around 35 kg. The performance parameter is mileage of 50km/lit. the maximum speed obtain is 25km/h.

It consist following main parts

- Chassis

DESIGN AND FABRICATION OF MACHINE PERFORMING MULTIPLE WOOD WORKING OPERATIONS USING SINGLE DRIVE

Mr. Vijay V. Jadhav, Mr. Ganesh D. Chandawale, Prof. M. S. Shinge

U.G. Student, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Assistant Professor, Department of Computer Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Abstract: This paper discuss about the design and fabrication of multi-operational mechanical wood working machine. Wood working is anything that performing any operation on wood in any way for some useful work. The multi-operational mechanical wood working machine (MoMM) has ability to perform four operations such as drilling, hack-saw cutting, grinding, saw blade cutting. On a single machine all the four tools driven by single motor. The belt drives can be engaged and disengaged whenever necessary. In this competitive work people are passionate for their home interior design. Traditionally carpenter uses separate machine for separate operation which creates a serious problem of material handling as well as maintenance. In order to minimise this problem the idea of installing all the machines in single setup comes up. Which will not only minimise the working space but also it will enhance the ease of operation for operator.

Keywords: - Multi-operational mechanical machine, drilling, hack-saw cutting, grinding, saw blade cutting.

VIII. INTRODUCTION

Industries are basically meant for production of useful goods and services at low production cost, machinery cost, low inventory cost. Today in this world every task have been made quicker and fast due to technology advancement, but this advancement also demands huge investment and expenditure, every industry desires to make high productivity rate maintaining the quality and standard of the product at low average cost, so here we have proposed machine which can perform operations like drilling, sawing (hack-saw, or circular saw), grinding which implies that industrialist have not to pay for the machine performing above task individually but simultaneously.

IX. EXISTING SYSTEM

Generally the operations which can be performed on multi-operational mechanical wood working machine is done on separate, huge and bulky machines which costs high and also difficult to maintain periodically. Also it requires high initial investment which is generally not possible for small and medium scale enterprise. This gives rise to the innovative machine which will lessen the efforts of human being and yield more productivity by arranging all the above mentioned four operations that is drilling, saw blade cutting, hack-saw cutting and grinding in one single setup.

X. PROPOSED SYSTEM

The system consists of simple setup and at most utilization of space and considering all the ergonomic considerations for the operator which will ease the machine.

A) Layout Diagram

The proposed layout of Multi-operational Mechanical wood working machine is shown in fig [1].

DESIGN OF PORTABLE THREE WHEELER

Prof. Avadhut R. Jadhav, Prof. Sujit V Kumbhar, Prof. Kedar K. Patil, Prof. Mahesh S. Shinge
Prof. Amit A. Desai

Assistant Professors, Department of Computer Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Abstract: In India, millions of cars are presently running on road. This might create several problems like traffic jams, parking problems etc. As population growth of India is tremendously large, the demand of individual person is also increased like they want their car cheap in cost and small in size. To overcome the problems of Traffic Jams, we developed the portable three wheeler. In this paper we discussed the design and analysis of the chassis and driving shaft.
Keywords: portable, suitcase

I. INTRODUCTION

India is developing country, now a population of India is increasing day by day. This causes increase of demand of car, bikes, the use of cars/bikes, vehicle creates traffic problem, parking problem. The economy status of public is increased so now a days around 60% family have at least one car. So demand of current scenario is to developed the compact size automobile. To minimize the traffic and mainly parking problem, vital need to developed the compact automobile or foldable car.

To overcome the problem, we designed and developed the portable three wheeler which is foldable. It is basically portable vehicle which is enclosed in suitcase.

II. SUITCASE CAR



The above is the picture of portable three wheeler. It is the vehicle which is enclosed inside the suitcase. Portable three wheeler is formed by attaching the various part present in suitcase. The various parts like wheels, hand seat, fuel tank are detachable type. The total 5 to 6 minutes require converting the suitcase into portable three wheeler.

It is car in closed in suitcase of dimension 780mmx560mmx320mm. It is powered by an 80cc two stroke engine, the vehicle holds enough fuel for around one hours of driving at speeds up to 25 km/hr. It is built around a small steel chassis and it steered by handlebar. The weight of current model is around 35 kg, the performance parameter is mileage of 50km/lit, the maximum speed obtain is 25km/h.

It consist following main parts

- Chassis

AUTOMATIC COCONUT DE-HUSKING AND DE-SHELLING MACHINE

Mr. Varad V. Bhalakar, Mr. Shubham M. Langarkar Prof. S. B. Kamble

U. G. students, Department of mechanical engineering, Bharati vidyapeeth's college of engineering,
Kolhapur, India.

Assistant Professor, Mechanical Department, Bharati vidyapeeth's college of engineering, Kolhapur, India.

Abstract : Agriculture forms the backbone of our country economy. About 50-60% of citizens are depending on agriculture. For developing our country means providing our farmers with more advanced technology or tools, which would reduce overall time and cost required for work. This would make work more easy and comfortable.

Coconut is one of the world most useful and important perennial plant. Coconut plays an important role in economic, social and cultural activities of millions of people in our country, hence we develop coconut de-husking machine. Manual de-husking is time consuming since it is hand operated using sharp blade. Besides, it is dangerous and may cause back pain to the worker. The main purpose of this machine is to eliminate the skilled operator involved in de-husking the coconut and to completely automate the de-husking and de-shelling and this would help increase the production rate. This paper presents design and operational activities involved in developing an automated coconut de-husking and de-shelling machine.

Keywords: Coconut, Automatic, Coconut De-Husking, De-Shelling, Toothed Rollers, Small Scale Farmers, Production Rate.

I INTRODUCTION

Coconut tree is known as "Kalpa Vrishnu" in Sanskrit which means the tree that gives all that is necessary for living. Coconuts are grown in more than 93 countries in the world and therefore there is considerable scope to develop this machine. India is a major producer of coconut in the world. The various parts of the coconut have a number of culinary uses. The seed provides oil for frying, cooking, and making margarine. The coconut water is consumed as a refreshing drink throughout the humid tropics and is gaining popularity as a sports' drink. Coconut water can be fermented to produce coconut vinegar. The machine proposed in this work basically does two processes. They are de-husking and de-shelling, de-husking is the process of removing the husk from the nut. Majority of de-husking is carried out manually by machete or a spike, it show that there are no superior machines develop to handle the coconut. Coconut de-husking is the most fundamental issue in terms of finding labor and improving productivity.

Now a day's various techniques are used for de-husking of coconut. They are as follows:

1. Manual de-husking :
 - a) By using machete or spike
 - b) By using traditional tool
2. Pedal operated de-husking
3. Hydraulic operated de-husking
4. Pneumatic operated de-husking

At present, the de-husking of coconut is carried out by various machines like spike, traditional tool, pedal operated machine, hydraulic and pneumatic machines, etc.

From all above methods of coconut de-husking we understood that there are many limitations which creates difficulties during coconut de-husking. To overcome these difficulties and to increase production rate, we have decided to make "Automatic coconut de-husking machine." And also for removing the shell of coconut, the special attachment is provided.

II LITERATURE REVIEW

Venkataraman S, Abhirav Ram B, Rahul R discussed in "Design and Development of Automated Coconut De-husking and Crown Removal Machine" paper, presents the design and analysis activities involved in developing an automated coconut de-husking and coconut crown removal machine. The main purpose of this machine is to eliminate the skilled operator involved in de-husking the coconut and to completely automate the de-husking and crown removing process. H.V. Prashant, C. Gopinath, Vignesh Ravichandran discussed in "DESIGN AND DEVELOPMENT OF COCONUT FIBER EXTRACTION

A.35

UAV FOR MEDICAL EMERGENCIES: ORGAN TRANSPORT

Pranav U. Karekar, Sunil D. Mistry, Satyajeet A. Mahadik, Prof. G. J. Patil

U.G Students, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Assistant Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Abstract: An UAV is an Aerial vehicle that operates either manually or autonomously depending upon the requirement of the mission and precision in operation. UAV (Unmanned Aerial Vehicle). The central idea of this paper is defining the use of UAV newly. The contemporary application consists of aerial photography, surveillance etc. A UAV is an aerial vehicle that uses rotors (electrical motors) for lifting, steering, and stabilization. Unlike other aerial vehicles, the UAV can achieve vertical flight in a more stable condition. The UAV is not affected by the torque issues that a helicopter experiences due to the main rotor. Furthermore, due to the UAV's cyclic design, it is easier to construct and maintain. As the technology becomes more advanced and more accessible to the public, many engineers and researchers have started designing and implementing UAVs for different uses.

Keywords: UAV (Unmanned Aerial Vehicle)

INTRODUCTION

UAV are basically characterized as, manually operated and autonomously operated. Manually operated UAV's are those whose control operation is performed by the client or operator and Autonomous UAV's are those whose control is independent of the operator. Both of the mentioned types has certain pros and cons depending upon the area of application, precision of operation etc. Autonomous systems are machines and systems that are capable of performing a series of operations where the sequence is determined by the outcome of the previous operation or by reference to external circumstances that are monitored and measured within the system itself or the host. Various groups such as military, engineers, researchers and hobbyists etc. have been developing UAV to understand different technical areas. For example, UAV's can be used for reconnaissance and collecting data. This could range from searching for survival victims in disaster area to checking the state of electrical powerline etc. the main focus of this paper is to elucidate the use of UAV for transportation of vital organs such as heart and kidney and blood. During a medical emergency such as a heart transplant the patient has to be handled as soon as possible in such situations contemporary modes of transportation of such organs such as roads can lead to serious problems in metropolitan cities where traffic is a major issue, sometimes the patient cannot survive the surgery due to delay in the transport. Hence using UAV's as transportation medium during such situations can seriously reduce the transportation time which is considered as a key factor in the survival of the patient.

II. LITERATURE REVIEW

1] Etienne Oehmichen:

Etienne Oehmichen was the first scientist who experimented with Rotorcraft designs in 1920s. Among the six designs he tried, his second multi-copter had four and eight propellers, all driven by a single engine. The Oehmichen used a steel-tube frame, with two-bladed rotors at the end of four arms. The angle of these blades could be varied by warping. Five of the propellers, spinning in the horizontal plane, stabilized the machine laterally. Another propeller was mounted at the nose for steering. The remaining pair of propellers were for forward propulsion.

2] Converterwings Model a Quadrotor (1956):

This unique helicopter was intended to be the prototype for a line of much larger civil and military quadrotor helicopters. The design featured two engines driving four rotors through a system of v-belts. No tail rotor was needed and control was obtained by varying the thrust between rotors. Flown successfully many times in the mid-1950s, this helicopter proved the quadrotor design and it was also the first four-rotor helicopter to demonstrate successful forward flight. Due to a lack of orders for commercial or military versions however,

A21

AUTOMATED MATERIAL HANDLING SYSTEM FOR MULTI STORAGE BUILDING

Mr. Satish Suryawanshi, Mr. Tushar Ingade, Mr. Rahul Kamble, Mr. Sunil Chavan,

Mr. Nitin Tambe, Prof. G. J. Patil

U.G. Student, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Assistant Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Abstract: Automatic motion planning and navigation is the primary task of an Automated Guided Vehicle (AGV) or mobile robot. All such navigation systems consist of a data collection system, a decision making system and a hardware control system. Artificial Intelligence based decision making systems have become increasingly more successful as they are capable of handling large complex calculations and have a good performance under unpredictable and imprecise environments. This project focuses on development of multi storey material handling systems using automated guided vehicle which can smartly follow a predefined path on industry floor. The project involves development of smart inter vehicular communication system between AGVs which perform a task in coordination with each other. The project consists of AGVS and a lift to transfer material across different floors. The prime focus of the project is to make entire operation automated thus involving least manual intervention.

Keywords: Material Handling, AGVS

I. INTRODUCTION

Material handling involves short-distance movement within the confines of a building or between a building and a transportation vehicle. It utilizes a wide range of manual, semi-automated, and automated equipment and includes consideration of the protection, storage, and control of materials throughout their manufacturing, warehousing, distribution, consumption, and disposal. Material handling can be used to create time and place utility through the handling, storage, and control of material, as distinct from manufacturing, which creates form utility by changing the shape, form, and makeup of material. Robots are now working in dangerous places, such as nuclear disposal, space explorers, fire fighting, etc. One such robotic vehicle which is employed in industries is the automated guided vehicle. The primary purpose of AGV is in material handling in industries from one point on industrial floor to another. An automated guided vehicle (AGV) is a robot that follows markers or wires in the floor, or uses vision or lasers. They are most often used in industrial applications to move materials around a manufacturing facility. Automatic guided vehicle uses less manpower and are highly efficient. They are not only used in manufacturing process but are also used in transporting the product from manufacturing unit to warehouse.

II. EXISTING SYSTEM

The existing system is the manual handling refers to the use of a worker's hands to move individual containers by lifting, lowering, and filling, emptying, or carrying them. It can expose workers to physical conditions that can lead to injuries that represent a large percentage of the over half a million cases of musculoskeletal disorders reported in the U.S. each year, and often involve strains and sprains to the lower back, shoulders, and upper limbs. Ergonomic improvements can be used to modify manual handling tasks to reduce injury. These improvements can include reconfiguring the task and using positioning equipment like lift/abram tables, hoists, balancers, and manipulators to reduce reaching and bending.

OPTIMIZATION OF ROLLER BELT CONVEYOR IN SUGARCANE INDUSTRY

Mr. Swarnand A. Dhanawade, Prof. S. J. Kadam, Prof. G. J. Pol

P.G. Student, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Associate Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Assistant Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Abstract: Material handling is most important part of the industry and it is consuming a considerable proportion of the total power supply in industry. Material handling system contains various types like Lifts, AGV's, Conveyors, etc. from that conveyors are used mostly in industries for continuous handling. Belt conveyor is used to transport material from one location to another. Belt conveyor is a commonly used equipment of continuous transport it has a high efficiency, large conveying capacity and it can be achieved at different distances, different materials transportation. The task of transportation within the conveyor belt systems can be defined as a process aimed at the transportation of the determined quantity of handled material within a defined period of time between the specified loading and unloading locations. It is significant to reduce the energy consumption or energy cost of material handling sector. This task accordingly depends on the improvement of the energy efficiency of belt conveyors, as these are the main energy consuming components of material handling systems. In this project the solution on more weight and power consumption is given. Hence in this project we are going to design the critical parts of roller belt conveyor used in sugarcane industry, i.e., roller, bracket, bearing, and frame of conveyor.

Keywords: - Material handling, energy

1. INTRODUCTION

Material handling is an important part of the industry and consuming a considerable proportion of the total power supply. Material handling system contains various types like Lifts, AGV's, Conveyors, etc. from that conveyors are used mostly in industries for continuous handling. Conveyors are further classified in various types like, belt conveyor, roller conveyor, chain conveyor, screw conveyor, pneumatic conveyor, roller belt conveyor, etc. Belt conveyor is used to transport material from one location to another. Belt conveyor is a commonly used equipment of continuous transport it has a high efficiency, large conveying capacity and it can be achieved at different distances, different materials transportation. Now a day's Belt conveyor system not only used in mining industries but also applied in cement industries, power plant, food industries, production industries etc. So it is essential equipment for in house material transportation today. It has high load carrying capacity, large length of conveying path, simple design, easy maintenance and high reliability of operation. Belt conveyor system is also used various industries such as the material transport in foundry shop like supply and distribution of moulding sand, moulds and removal of waste, coal and mining industry, sugar industry, agricultural industry, bagasse industry, fuel industry etc.

The task of transportation within the conveyor belt systems can be defined as a process aimed at the transportation of the determined quantity of handled material within a defined period of time between the specified loading and unloading locations. To ensure operational reliability of the conveyor system consisting of rollers, roller brackets, bearings, belt lines, in terms of kinematic, dynamic, and energetic conditions is a very challenging task.

The coal loading conveyors can produce noise levels that become an annoyance, especially at night time when the ambient noise levels are low. For these reasons decreasing the noise produced by conveyors is an important topic, and producing an idler roller that lowers the noise emission from the conveyor belt

A REVIEW ON AUTOMOBILE TYRE

Prof. Kunal J Padalkar, Prof.S.V Pandit, Pro. CA R Jadhav, Prof.G J Pol

Assistant Professor, Department of Engineering sciences, RAIT Neral Neri Mumbai, India

Assistant Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Abstract: The tyres are required to carry the load of the automobile. The tyres may be with tube or tubeless. In the former, the tube is inside the tyre and contains air at high pressure. In tubeless tyre there is no tube and tyre itself contains air at high pressure. They also transfer the braking and driving torque to the road. The motion of the automobile becomes possible only when the friction acts between the tyre surface and the road surface. This friction is required for the stability of the moving automobile. The friction must not go beyond a particular limit as it will cause wastage of power output from the engine and loss of money in the form of wastage of fuel. The tyres also absorb the vibrations due to the uneven road surface. The road may be dry or wet, it may be a concrete road, or may be paved with gravel or asphalt. Sometimes automobile may be required to move on a rough road. The tyres must be capable of providing stability to the automobile in all these varying conditions. This paper gives the information related to tyre.

Keywords: -tyres, automobile, tubeless tyre, tyre specifications, tyre materials

I. INTRODUCTION

The materials of modern pneumatic tires are synthetic rubber, natural rubber, fabric and wire, along with carbon black and other chemical compounds. They consist of a tread and a body. The tread provides traction while the body provides containment for a quantity of compressed air. Before rubber was developed, the first versions of tires were simply bands of metal fitted around wooden wheels to prevent wear and tear. Early rubber tires were solid (not pneumatic). Today, the majority of tires are pneumatic inflatable structures, comprising a doughnut-shaped body of cords and wires encased in rubber and generally filled with compressed air to form an inflatable cushion. Pneumatic tires are used on many types of vehicles, including cars, bicycles, motorcycles, buses, trucks, heavy equipment, and aircraft. Metal tires are still used on locomotives and railcars, and solid rubber (or other polymer) tires are still used in various non-automotive applications, such as some casters, carts, lawnmowers, and wheelbarrows.

Synthetic rubbers were invented in The laboratories of Bayer in the 1920s, and Michelin developed the radial tire method of construction. Michelin had bought the bankrupt Citroen automobile company in 1934, so it was able to fit this new technology immediately. Because of its superiority in handling and fuel economy, Tires of this technology quickly spread throughout Europe and Asia. In the U.S., the outdated bias-ply tire construction persisted, with market share of 87% as late as 1967. Delay was caused by tire and automobile manufacturers in America "concerned about transition costs." In 1968, Consumer Reports, an influential American magazine, acknowledged the superiority of radial construction, setting off a rapid decline in Michelin's competitor technology. Even in the U.S., the radial tire now has a market share of 100%.

II. TYRE MATERIAL

Rubber is the main raw material used in manufacturing tires, and both natural and synthetic rubber are used. Natural rubber is found as a milky liquid in the bark of the rubber tree, *Hevea brasiliensis*. To produce the raw rubber used in tire manufacturing, the liquid latex is mixed with acids that cause the rubber to solidify. Presses squeeze out excess water and form the rubber into sheets, and then the sheets are dried in tall smokehouses, pressed into enormous bales, and shipped to tire factories around the world. Synthetic rubber is produced from the polymers found in crude oil. The other primary is

Gradient in tire rubber is carbon black. Carbon black is a fine, soft powder created when crude oil or natural gas is burned with a limited amount of oxygen, causing incomplete combustion and creating a large amount of fine soot. So much carbon black is required for manufacturing tires that rail cars transport it and huge silos store the carbon black at the tire factory until it is needed.

A 151

DESIGN OF PORTABLE THREE WHEELER

Prof. Avadhut R. Jadhav, Prof. Saji V Kumbhar, Prof. Kedar K. Patil, Prof. Mahesh S. Shinge
Prof. Amit A. Desai

Assistant Professors, Department of Computer Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Abstract: In India, millions of cars are presently running on road. This might create several problems like traffic jams, parking problems etc. As population growth of India is tremendously large, the demand of individual person is also increased like they want their car cheap in cost and small in size. To overcome the problems of Traffic Jams, we developed the portable three wheeler. In this paper we discussed the design of the portable three wheeler. In this paper we discussed the design and analysis of the chassis and driving shaft.
Keywords: portable, suitcase

I INTRODUCTION

India is developing country, now a population of India is increasing day by day. This causes increase of demand of car, bikes, the use of cars/bikes, vehicle creates traffic problem, parking problem. The economy status of public is increased so now a days around 60% family have at least one car. So demand of current scenario is to develop the compact size automobile. To minimize the traffic and mainly parking problem, vital need to develop the compact automobile or foldable car.

To overcome the problem we designed and developed the portable three wheeler which is foldable. It is basically portable vehicle which is enclosed in suitcase.

II. SUITCASE CAR



The above is the picture of portable three wheeler. It is the vehicle which is enclosed inside the suitcase. Portable three wheeler is formed by attaching the various part present in suitcase. The various parts like wheels, hand seat, fuel tank are detachable type. The total 5 to 6 minutes require converting the suitcase into portable three wheeler.

It is car in closed in suitcase of dimension 780mmx560mmx320mm. It is powered by an 80cc two stroke engine, the vehicle holds enough fuel for around one hour of driving at speeds up to 25 km/hr. It is built around a small steel chassis and it steered by handlebar. The weight of current model is around 35 kg. The performance parameter is mileage of 50 km/lit. The maximum speed obtain is 28 km/h.

It consist following main parts

- Chassis

A 147

Optimization of Wall Thickness for Minimum Heat Losses for Induction Furnace

Nilesh T. Mohite¹, Ravindra G. Bhanf²

1, Assistant professor, 2 Associate professor Mechanical Engg. department, D.Y.Patil college of engg. & Technology,

Kalhapur,

Maharashtra, India,

Amit A. Desai³, Anil V. Patil⁴

3, 4 Assistant professor, Mechanical Engg. department, Bharati Vidyapeeth's college of engg. & Technology,

Kalhapur,

Maharashtra, India,

Abstract

This paper focuses on the issue of optimum wall thickness for minimum heat losses through the walls of induction furnace. Three ramming masses viz. Alumina, Magnesita and Zirconia are used. This analysis is carried out in Ansys Workbench software and the results are compared with the analytical results. From the result, we can reduce 48% losses from properties optimization and 64 % by geometrical optimization. Optimum geometry and properties of ramming mass can reduce total 60% losses with optimum thickness and properties of material of induction furnace.

Keywords: Optimization, induction furnace

Introduction

Induction heating processes have become increasingly used in these last years in industry. The main advantages of using these processes when compared to any other heating process (gas furnace, ...) are, among others, their fast heating rate, good reproducibility and low energy consumption. The induction heating process basically consists in transmitting by electromagnetic means, energy from a coil through which an alternative current is circulating. Induction heating processes are mainly used either at low frequencies (around 50 Hz), usually in order to reach a temperature distribution as uniform as possible within the material before any forming process, or at much higher frequencies (104–106 Hz) in order to heat very locally near the surface, usually for heat treatments.

The design of induction furnace involves in the proper composition of the composite wall for the proper melting of metals. There are numerical calculations involved in the wall thickness but the industries fit the wall thickness mostly based on experience. Most induction heating processes are set up using engineering experience and a trial-and-error procedure in order to achieve the corresponding goal (gran size control, uniform prescribed temperature, hardness map, etc.). Induction heating process simulation, which couples

electromagnetic and heat transfer equations, can be of great help for a more in depth understanding of occurring physical phenomena. So far, various numerical models have been developed coupling electromagnetism and heat transfer. Most models involve the well-known finite element approach or mixed finite element and boundary element approaches. [8]

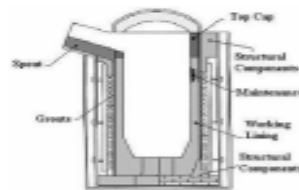


Figure 1: Induction Furnace used in industries

Induction furnaces are most commonly used for melting of metals. Especially silica ramming mass is used as refractory material to prevent losses. Hence proper optimization is needed in thickness. Increase in thickness plays an important role in effectiveness of the furnace. As the thickness increases the heat losses goes on decreasing up to a certain limit. Optimum thickness reducing heat loss in furnace with economical cost is needed. Now a day's the increasing demand for electric power and the pursuit of its economical use, energy converters with higher and higher power have been developed and are being produced. In addition, the requirements of minimum electric power losses and environment protection have become extremely important, that is the minimization of the heat losses. Mostly there are heat losses by conduction, convection and radiation, and hence the improvement in best refractory material and

A REVIEW ON AUTOMOBILE TYRE

Prof. Kunal J Padalkar, Prof.S.V Pandit, Prof.A.R Jadhav, Prof.G J Pol

Assistant Professor, Department of Engineering sciences, RAIT Neri Neri Mumbai, India

Assistant Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Abstract: The tyres are required to carry the load of the automobile. The tyres may be with tube or tubeless. In the former, the tube is inside the tyre and contains air at high pressure. In tubeless tyre there is no tube and tyre itself contains air at high pressure. They also transfer the braking and driving torque to the road. The motion of the automobile becomes possible only when the friction acts between the tyre surface and the road surface. This friction is required for the stability of the moving automobile. The friction must not go beyond a particular limit as it will cause wastage of power or output from the engine and loss of money in the form of wastage of fuel. The tyres also absorb the vibrations due to the uneven road surface. The road may be dry or wet, it may be a concrete road, or may be paved with gravel or asphalt. Sometimes automobile may be required to move on a 'rough' road. The tyres must be capable of providing stability to the automobile in all these varying conditions. This paper gives the information related to tyre.

Keywords: -tyres, automobile, tubeless tyre, tyre specifications, tyre materials

I. INTRODUCTION

The materials of modern pneumatic tires are synthetic rubber, natural rubber, fabric and wire, along with carbon black and other chemical compounds. They consist of a tread and a body. The tread provides traction while the body provides containment for a quantity of compressed air. Before rubber was developed, the first versions of tires were simply bands of metal fitted around wooden wheels to prevent wear and tear. Early rubber tires were solid (not pneumatic). Today, the majority of tires are pneumatic inflatable structures, comprising a doughnut-shaped body of cords and wires encased in rubber and generally filled with compressed air to form an inflatable cushion. Pneumatic tires are used on many types of vehicles, including cars, bicycles, motorcycles, buses, trucks, heavy equipment, and aircraft. Metal tires are still used on locomotives and railcars, and solid rubber (or other polymer) tires are still used in various non-automotive applications, such as some casters, carts, lawnmowers, and wheelbarrows. Synthetic rubbers were invented in The laboratories of Bayer in the 1920s-40s, Michelin developed the radial tire method of construction. Michelin had bought the bankrupt Citroen automobile company in 1934, so it was able to fit this new technology immediately. Because of its superiority in handling and fuel economy, Tires of this technology quickly spread throughout Europe and Asia. In the U.S., the outdated bias-ply tire construction persisted, with market share of 87% as late as 1967. Delay was caused by tire and automobile manufacturers in America "concerned about transition costs." In 1968, Consumer Reports, an influential American magazine, acknowledged the superiority of radial construction, setting off a rapid decline in Michelin's competitor technology. Even in the U.S., the radial tire now has a market share of 100%.

II. TYRE MATERIAL

Rubber is the main raw material used in manufacturing tires, and both natural and synthetic rubber are used. Natural rubber is found as a milky liquid in the bark of the rubber tree, *Hevea brasiliensis*. To produce the raw rubber used in tire manufacturing, the liquid latex is mixed with acids that cause the rubber to solidify. Presses squeeze out excess water and form the rubber into sheets, and then the sheets are dried in tall smokehouses, pressed into enormous bales, and shipped to tire factories around the world. Synthetic rubber is produced from the polymers found in crude oil. The other primary is

Gradient in tire rubber is carbon black. Carbon black is a fine, soft powder created when crude oil or natural gas is burned with a limited amount of oxygen, causing incomplete combustion and creating a large amount of fine soot. So much carbon black is required for manufacturing tires that rail cars transport it and huge silos store the carbon black at the tire factory until it is needed.

WATER TANK CLEANING MACHINE

Mr. Rajesh S. Desai, Mr. Vinay A. Bhosale, Mr. Mahadev B. Chougale, Prof. A. R. Jadhav.

U.G. Student, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

Assistant Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering, Kolhapur, India.

Abstract - Today in urban area for water management water tanks are used. Today manual cleaning of water tank is carried out in urban area. Purpose of this project is to clean the domestic water tank with the help of mechanical system. The mechanical system consists of two main mechanisms which are gear mechanism and rack - pinion mechanism. Rack and pinion system which is used to reciprocating whole mechanical system up and down according to the height of domestic tank. External pipe is shrunk on internal shaft. One end of this shaft is connected to bottom brushes and another end is connected to motor through bevel gear. When A.C. motor is switch on the external pipe moves up and down at the same time main shaft rotates and due to its rotation brushes clean the inner surface of tank. The achievement of this project is reduction of human effort and save the time. Because there will be harmful disease for the person who will go inside and it will affect the health as well as other human being who consumes water from tank.

Keywords :- A.C. motor, water tank, main shaft, brush, rack and pinion, bevel gear.

I. INTRODUCTION

The ground water level is dipping every year. A lot of algae and metallic elements precipitate out and stick to the water tank. This can eventually clog pipes and results in accidents. Which results damages the skin and it will effect on the health.

This method is the traditional method of cleaning the water tank. Where a labourer would get into water tank and scrub the wall. This method is time consuming and more effort to clean the water tank. Water tank cleaner enables to save time and money.

Water tank cleaner is best suited for building install with water tank. Tank cleaner equipment cleans water tank within minutes. There are different type of water tanks are available in the market, each suitable for different set of requirement regarding material, functioning and size.

II. BASIC COMPONENTS

1) A.C. MOTOR

An electric motor this an electromechanically device that converts electrical energy into mechanical energy. It is single phase, single wiring, 220V, 2.5A and produces power of 0.5 HP and frequency of 50 Hz and rotates the shaft at the speed of 1450 rpm.



Fig.1. A.C. Motor

A 118

DESIGN OF PORTABLE THREE WHEELER

Prof. Avadhut R. Jadhav, Prof. Sujit V Kumbhar, Prof. Kedar K. Patil, Prof. Mahesh S. Shinge
Prof. Amit A. Desai

Assistant Professors, Department of Computer Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Abstract: In India, millions of cars are presently running on road. This might create several problems like traffic jams, parking problems etc. As population growth of India is tremendously large, the demand of individual person is also increased like they want their car cheap in cost and small in size. To overcome the problems of Traffic Jams, we developed the portable three wheeler. In this paper we discussed the design of the portable three wheeler. In this paper we discussed the design and analysis of the chassis and driving shaft.
Keywords: portable, suitcase

I INTRODUCTION

India is a developing country, now a population of India is increasing day by day. This causes an increase in demand for cars, bikes. The use of cars and bikes, vehicle creates traffic problem, parking problem. The economy status of public is increased so now a days around 60% family have at least one car. So demand of current scenario is to develop the compact, size automobile. To minimize the traffic and parking problem, vital need to develop the compact automobile or foldable car.

To overcome the problem we designed and developed the portable three wheeler which is foldable. It is basically a portable vehicle which is enclosed in a suitcase.

II. SUITCASE CAR



The above is the picture of a portable three-wheeler. It is the vehicle which is enclosed inside the suitcase. A portable three-wheeler is formed by attaching the various parts present in the suitcase. The various parts like wheels, hand crank, fuel tank are of a detachable type. The total 5 to 6 minutes require converting the suitcase into a portable three-wheeler.

It is a car in a closed suitcase of dimension 780mm x 500mm x 320mm. It is powered by an 80cc two-stroke engine. The vehicle holds enough fuel for around one hour of driving at speeds up to 25 km/hr. It is built around a small steel chassis and is steered by a hand crank. The weight of the current model is around 35 kg. The performance parameter is mileage of 50 km/lit. The maximum speed obtained is 25 km/hr.

It consists of the following main parts:

- Chassis

A REVIEW ON CENTRIFUGAL CLUTCH

Prof.S.V.Pandit, Chetan Goud, Mohanish Patil, Gurunath Patil,

Assistant Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

UG Student, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Abstract: The centrifugal clutch offers many advantages in motor and engine drive applications. Utilizing the centrifugal clutch enables the selection of normal torque motors for running loads rather than the selection of high torque motors for starting loads. The world is advancing technically in the field of Automatic and Technology is never at a standstill. In recent time it has gained greater momentum than ever before. As demand for time increases, people require something less time consuming as time is money, something more precise, something accurate, meaning something automatic which can serve the people comfortably. On this path, the science and engineering field is always under development and discoveries having come to the people and serves for their betterment and welfare. In many applications, compliant mechanism can maintain or even improve performance relative to conventional rigid body designs. It is cost benefited. Also conventional clutch is expensive rather than compliant clutch. This paper presents basic information of centrifugal clutch and it's working.

Keywords: -Centrifugal clutch, Transmission, Torque, Clutch engagement and clutch disengagement.

XII. INTRODUCTION

The clutch is an important part in the transmission system of automobiles. It transmits power from the engine to gear box at various speeds. No shock is caused during this transmission of power. The clutch works on the principles of friction. When two friction surfaces are brought in contact with each other and pressed they are united due to the friction between them. If now one is revolved, the other will also revolve. The friction between the two surfaces depends upon the area of the surfaces, pressure applied upon them and coefficient of friction of the surface materials. The two surfaces can be separated and brought into contact when required. The driving member is kept rotating. When the driven member is brought in contact with the driving member, it also starts rotating. When the driven member is separated from the driving member it does not revolve. This is the principle on which a clutch operates.

An automatic transmission or gearbox is a type of motor vehicle transmission that can automatically change gear ratios as the vehicle moves, freeing the driver from having to shift gears manually. The automatic transmission was invented in 1921 by Alfred Horner Muntz of Regina, Saskatchewan, Canada, in 1923. In such a way in 1977 Mr. Ray Hill an American Automobile Engineer successfully developed an Automatic Gearbox of constant-mesh/intermesh type working on the principle of centrifugal clutches. The present automatic gearbox is an automatic transmission in which increased rotation of the input shaft causes the engagement of a first centrifugal clutch assembly which, in turn, drives a planetary gear reduction assembly and, as speed picks up, a second centrifugal clutch assembly of similar construction comes into engagement to change the drive of the input shaft to a direct drive arrangement with the output shaft whereby the whole transmission rotates as a unit.

XIII. REQUIREMENTS OF A CLUTCH

1. Torque transmission: - The clutch should be able to transmit maximum torque of the engine.
2. Gradual engagement: - The clutch should engage gradually to avoid sudden jerks.
3. Heat dissipation: - The clutch should be able to dissipate large amount of heat which is generated during the clutch operation due to friction.
4. Dynamic balancing: - The clutch should be dynamically balanced. This is particularly required in the case of high speed engine clutches.
5. Vibration damping: - The clutch should have suitable mechanism to damp vibrations and to eliminate noise produced during the power transmission.

A93

A REVIEW ON AUTOMOBILE TYRE

Prof. Kunal J Padalkar, Prof.S.V Pandit, Pro.CA R Jadhav, Prof.G J Pol

Assistant Professor, Department of Engineering sciences, RAIT Neral Neri Mumbai, India

Assistant Professor, Department of Mechanical Engineering, Bharati Vidyapeeth's College of Engineering,
Kolhapur, India.

Abstract: The tyres are required to carry the load of the automobile. The tyres may be with tube or tubeless. In the former, the tube is inside the tyre and contains air at high pressure. In tubeless tyre there is no tube and tyre itself contains air at high pressure. They also transfer the braking and driving torque to the road. The motion of the automobile becomes possible only when the friction acts between the tyre surface and the road surface. This friction is required for the stability of the moving automobile. The friction must not go beyond a particular limit as it will cause wastage of power output from the engine and loss of money in the form of wastage of fuel. The tyres also absorb the vibrations due to the uneven road surface. The road may be dry or wet, it may be a concrete road, or may be paved with gravel or asphalt. Sometimes automobile may be required to move on a rough road. The tyres must be capable of providing stability to the automobile in all the se varying conditions. This paper gives the information related to tyre.

Keywords: -tyres, automobile, tubeless tyre, tyre specifications, tyre materials

I. INTRODUCTION

The materials of modern pneumatic tires are synthetic rubber, natural rubber, fabric and wire, along with carbon black and other chemical compounds. They consist of a tread and a body. The tread provides traction while the body provides containment for a quantity of compressed air. Before rubber was developed, the first versions of tires were simply bands of metal fitted around wooden wheels to prevent wear and tear. Early rubber tires were solid (not pneumatic). Today, the majority of tires are pneumatic inflatable structures, comprising a doughnut-shaped body of cords and wires encased in rubber and generally filled with compressed air to form an inflatable cushion. Pneumatic tires are used on many types of vehicles, including cars, bicycles, motorcycles, buses, trucks, heavy equipment, and aircraft. Metal tires are still used on locomotives and railcars, and solid rubber (or other polymer) tires are still used in various non-automotive applications, such as some casters, carts, lawnmowers, and wheelbarrows.

Synthetic rubbers were invented in The laboratories of Bayer in the 1920s-46, Michelin developed the radial tire method of construction. Michelin had bought the bankrupt Citroen automobile company in 1934, so it was able to fit this new technology immediately. Because of its superiority in handling and fuel economy, Tires of this technology quickly spread throughout Europe and Asia. In the U.S., the outdated bias-ply tire construction persisted, with market share of 87% as late as 1967. Delay was caused by tire and automobile manufacturers in America "concerned about transition costs." In 1968, Consumer Reports, an influential American magazine, acknowledged the superiority of radial construction, setting off a rapid decline in Michelin's competitor technology. Even in the U.S., the radial tire now has a market share of 100%.

II. TYRE MATERIAL

Rubber is the main raw material used in manufacturing tires, and both natural and synthetic rubber are used. Natural rubber is found as a milky liquid in the bark of the rubber tree, *Hevea brasiliensis*. To produce the raw rubber used in tire manufacturing, the liquid latex is mixed with acids that cause the rubber to solidify. Presses squeeze out excess water and form the rubber into sheets, and then the sheets are dried in tall smokehouses, pressed into enormous bales, and shipped to tire factories around the world. Synthetic rubber is produced from the polymers found in crude oil. The other primary in

Gradient in tire rubber is carbon black. Carbon black is a fine, soft powder created when crude oil or natural gas is burned with a limited amount of oxygen, causing incomplete combustion and creating a large amount of fine soot. So much carbon black is required for manufacturing tires that rail cars transport it and huge silos store the carbon black at the tire factory until it is needed.