



BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING, KOLHAPUR
Intellectual property rights (IPR)
Patent

Sr. No.	Name of the Applicant	Title of patent	Type of patent National / International	Application Number	Status		
					Filed	Published	Awarded
1	Mr. Tanveer I. Mujawar	LIGHTWEIGHT JIB CRANE HANDLING DEVICE	National	457102-001	29/4/2025		2/9/2025
	Mr. Nilesh D. Pawar						
	Mr. Sanjiv K. Kondigire						
	Dr. Pralhad Bhaskar Patole						
	Dr. Vijay R. Ghorpade						
Mr. Amit A. Desai							
2	Mr. Jayant Chandrakant Thorat,	Biochemical Testing Device with Integrated Micro Pipettes	International	UK-6456646	-	-	15/07/2025
3	Dr. Pralhad Bhaskar Patole	NANOPARTICLE-BASED PRECISION COOLING SYSTEM FOR ENHANCED METAL CUTTING OPERATIONS	National	202321055690	19/8/2023	18/12/2023	28/3/2025
	Mr. Suyash B. Kamble						
	Mr. Amit Abhav Desai						
	Mr. Bepari M.M.						
Mrs. Jyoti Pralhad Patole							
4	Dr. Sunil J. Kadam	A System for the Fabrication of Hybrid Photovoltaic Devices Using Mo-doped TiO ₂ /rGO as Nanocomposites and Natural Pigments as Sensitizer	International	202024107612	12/28/2024		2/3/2025
5	Mr. Pramod A. Kharade Dr. Sagar B. Patil	Precision Handheld Pesticide Sprayer	National	438530-001	26th Nov. 2024		12th Feb. 2025
6	1. Mrs. Aarti Hemant Tirmare	ELECTRICAL REPAIRS ASSISTING ROBOTIC DEVICE	National	430575-001	15/09/2024	24/01/2025	24/01/2025
	2. Ms. Priyadarshani Shivakumar Mali						
	3. Dr. Kamalakar Ravindra Desai						
	4. Mr. Vikas Dattatray Patil						
7	Dr. Jayamala Kumar Patil	Solar-Powered Medicinal Plant Extractor	International	6417339	-	15/01/2025	20/01/2025
8	1.Mr. Jayant Chandrakant Thorat 2. Shree Santosh Kesarkar	Ergonomically Optimized Benchtop Chemical Reactor with Integrated Digital Controls and Enhanced Safety Features	National	IN459394-001	19/05/2025	-	8/9/2025
9	5.Shree Santosh Kesarkar 6.Balaji Tukaram Mohite	Design for "AI Base Device for Solve Mathematical and Engineering Problems."	National	464729-001	6/7/2025	-	10/12/2025
10	Mr.Avadhut R. Jadhav	Brackets Restricting canvas tearing	National	157901	12/27/2023		21/02/2024
	Dr. Sunil J. Kadam						
	Mr.Gajendra J.Pol						
	Mr.Jitendra G. Shinde						
Mr.Raju B. Lokapure							
11	Mr.Jitendra G. Shinde	Miniature Pulse Tube Cryocooler	National	183675	9/6/2024		30/10/2024
	Dr. Sunil J. Kadam						
12	Mr.Jitendra G. Shinde	Bag Holder Device For Motorcycle	National	161946	1/27/2024		28/03/2024
	Mr.Avadhut R. Jadhav						
	Mr.Gajendra J.Pol						
	Dr. Sunil J. Kadam						
13	Dr. Sunil J. Kadam	A system for synthesizing Ti1-xFexO2-δ Photoelectrodes co-sensitized with CdS QDs- N719 dye Sensitized Solar Cell	International	202024106776	11/23/2024		9/12/2024
14	Mr.Jitendra G. Shinde	Ginger Sowing Machine	National	185222	9/23/2024		22/11/2024
	Mr.Gajendra J.Pol						
	Mr.Avadhut R. Jadhav						
15	Mr.Jitendra G. Shinde	Moving Magnet Compressor For Cryocooler	National	168218	3/21/2024		5/3/2024
	Dr. Sunil J. Kadam						
	Mr.Avadhut R. Jadhav						
Mr.Gajendra J.Pol							
16	Dr. Rahul P. Mirajkar Mrs. Dipali A. Alone Mrs. Radhika M. Mane	Miniature Pulse Tube Cryocooler	National	429670-001	6th Sept. 2024		30th Oct. 2024
17	Dr. Praveenkumar A. Patel	AI Based Solar Energy Management Device	National	6388472	3rd Sept. 2024		11th Sept. 2024
18	Mr. Tiwari Vikramsinh Subhash	MANUALLY CONTROLLED WATER DIVERTING MACHINE	National	410867-001	18/03/2024	30/05/2024	30/05/2024
	Ms. Pooja Avinash Bhokare						
19	1. Bharati Vidyapeeth's College of Engineering, Kolhapur 2. Dr. Jayamala Kumar Patil 3. Dr. Vijay Ram Ghorpade 4. Mr. Vinay Sampatrao Mandlik 5. Dr. Kamalakar Ravindra Desai 6. Dr. Sanjay Shamrao Pawar 7. Mrs. Aarti Hemant Tirmare 8. Ms. Priyadarshani Shivakumar Mali 9. Mr. Vikas Dattatray Patil	SMART HEATING AND COOLING JACKET	National	395663-001	21/09/2023	26/01/2024	25/01/2024

20	Mr. V.S.Kadam	Portable Device for Comprehensive Real-Time Concrete Structure Health and Integrity Assessment	National	430577-001	15/09/2024	2/12/2024	2/12/2024
	Mr. S.S.Kotwal						
	Mr. M.M. More						
	Mr. V.B. Patil						
	Mr. V.S.tiware						
	Mr.N.A.Mohite						
Ms.P.K. Fagueredo							
21	Mr. Tiware Vikramsinh Subhash Ms. Pooja Avinash Bhokare	PH-BASED WATER DIVERTING AUTOMATIC DEVICE	National	410545-001	14/03/2024	3/5/2024	3/5/2024
22	1.Dr. Rajkumar Kundlik Chougale, 2. Mrs.Sarita Santaji Shinde, 3. Praveenkumar Arjun Patil, 4. Ranjeet Ramesh Suryawanshi, 5.Gayatri Suryakant Ghorpade,	AI Based Solar Energy Management Device	International	UKD: 6388472	-	-	11/9/2024
23	Mr.Kadam Vidyanand Shirrang	Design of Smart Helmate to Support Civil Engineers	National	375773-001	17/12/2022	5/4/2024	5/4/2024
24	1. Bharati Vidyapeeth's College of Engineering, Kolhapur 2. Dr. Jayamala Kumar Patil 3. Dr. Vijay Ram Ghorpade 4. Mr. Vinay Sampatrao Mandlik	SMART AGRICULTURAL MONITORING DEVICE	National	426248-001	8/8/2024	1/11/2024	1/11/2024
25	Dr. Vijay R. Ghorpade Dr. Sunil J. Kadam Mr.Jitendra G. Shinde	Fuel Filter	National	14192	4/5/2023		6/7/2023
26	1. Bharati Vidyapeeth's College of Engineering, Kolhapur 2. Dr. Jayamala Kumar Patil 3. Ms. Priyadarshani Shivakumar Mali 4. Mr. Vikas Dattatray Patil 5. Ms. Aarti Hemant Tirmare 6. Mr. Vinay Sampatrao Mandlik 7. Mr. Ranjeet Ramesh Suryawanshi 8. Dr. Kamalakar Ravindra Desai	SMART DESK TO IDENTIFY LEARNING DISABILITIES	National	380135-001	25/02/2023	26/05/2023	23/05/2023
27	Dr. Jayamala Kumar Patil	SMART BIOSENSOR DEVICE TO DETECT LUNG CANCER	International	6322973			9/11/2023
28	1. Dr. Rajkumar K. Chougale 2. Mr. Vinay S Mandlik	MCB UNIT WITH TOUCH SCREEN FOR DOMESTIC PURPOSE	National	372033-001	05/10/2022	06/01/2023	04/01/2023
29	Dr. Sunil Jagannath Kadam	COST-EFFECTIVE ELECTROSPINNING SETUP FOR	National	202121004762	04/02/2021	26/02/2021	11/02/2022
30	Mr. Jayant Chandrakant Thorat	IMPLEMENTATION OF ARTIFICIAL INTELLIGENCE BASED TECHNIQUE INTEGRATED WITH MOLECULE MACHINES TO GENERALISE AUTOMATED CHEMISTRY	National	202341003016	15/01/2023	27/01/2023	
31	Mr. Jayant Chandrakant Thorat	IOT BASED AUTOMATIC VEHICLE ABNORMAL ACCIDENT DETECTION	National	202221072657	15/12/2022	30/12/2022	
32	1. Mr. Gajendra Jaysing Pol 2. Mr. Avadhut Rajaram Jadhav 3. Mr. Jitendra Govind Shinde 4. Mr. Ranjeet Sarjerao Mithari	DESIGNING A SMART CUTTING MACHINE TO CUSTOMIZE THE PRODUCTION OF PRODUCTS IN MANUFACTURING DEPARTMENT	National	202221054074	21/09/2022	23/12/2022	
33	Dr. Kedar Sharad Joshi	A SMART IOT BASED NATURAL LANGUAGE PROCESSING SYSTEM WITH PROMPT OF ENGLISH SENTENCES TO HELP LAYMEN'S INTERACTION WITH VIRTUAL ASSISTANTS EMBEDDED WITH SENSORS ALONG WITH PRONUNCIATION	National	202241051821	11/09/2022	16/09/2022	
34	Ms. Sarita Santaji Shinde	AI & ML BASED SYSTEM FOR PREDICTION OF WIND POWER FOR MULTI-TURBINES	National	202221050126	02/09/2022	16/09/2022	
35	Ms. Sarita Santaji Shinde	A SYSTEM FOR MAPPING CANCER COMMON DATA ELEMENTS USING	National	202221051203	07/09/2022	16/09/2022	
36	1. Dr. Rajkumar K. Chougale 2. Mr. Vinay S Mandlik	BATTERY MANAGEMENT SYSTEM FOR GREEN ENERGY STORAGE	National	202221048908	26/08/2022	09/09/2022	
37	Dr. Rajkumar K. Chougale	DESIGN AND IMPLEMENTATION OF A SMART SOLAR PANEL WITH AUTO RECTIFICATION AND SELF PHASED MANAGEMENT FEATURES	National	202221036570	25/06/2022	22/07/2022	
38	Dr. Rajkumar K. Chougale	DESIGN OF SOLAR THERMAL POWER INTEGRATION SYSTEMS TO INCREASE THE EFFICIENCY OF UTILISATION OF RENEWABLE ENERGY RESOURCES IN HOUSING UNITS	National	202211035079	19/06/2022	01/07/2022	
39	Dr. Vijay Ram Ghorpade	DYNAMIC TRUST MANAGEMENT FOR COMMUNITY BASED MOBILE GRID APPLICATION	National	201921047137	19/11/2019	21/05/2021	

40	Dr. Vijay Ram Ghorpade	INTELLIGENT COIN SEPARATOR	National	201821038013	08/10/2018	15/01/2021	
41	Dr. Vijay Ram Ghorpade	SECURE ROUTING PROTOCOL FOR MOBILE AD-HOC NETWORK (MANET)	National	201921053631	24/12/2019	03/01/2020	
42	Dr. Sunil Jagannath Kadam	DESIGN, FABRICATION AND ANALYSIS OF SOYABEAN MOISTURE REDUCING MACHINE IN SOYBEANS	National	201621003189	29/01/2016	20/10/2017	
43	Dr. Vijay Ram Ghorpade	METHOD AND APPARATUS FOR HIGH PERFORMANCE COMPUTING USING MOBILE GRID	National	4218/MUM/2015		12/05/2017	
44	Dr. Rajkumar Kundlik Chougale, Praveenkumar Arjun Patel	An Intelligent Machine Learning System for Optimizing Power output in Photovoltaic Arrays under Partial Shading Conditions	National	202541077953 A	16/08/2025	29/08/2025	
45	Dr. Rajkumar Kundlik Chougale	IOT-Integrated AI controller for real-time Battery temperature & load balancing in Electric Vehicles	National	202521074654 A	45816	15/08/2025	
46	1. Dr. Kamalakar Ravindra Desai 2. Ms. Aarti Hemant Tirmare 3. Mr. Ranjeet Ramesh Suryawanshi	SMART NIGHT VISION CAMERA SYSTEM WITH DISTRESS IDENTIFICATION AND WARNING ALERTY MECHANISM TO NOTIFY CRIME.	National	202221069210	30/11/2022	12/1/2024	
47	Supriya Yogesh Naik	AI-DRIVEN IOT FRAMEWORK FOR ELECTRIC VEHICLE-BASED POLLUTION MONITORING AND DISEASE PREVENTION IN SMART CITIES	National	202641024937	3/3/2026	20/03/2026	
48	Mrs. Renuka V. Jadhav	Interactive Web Platform for Visualizing Page Replacement Algorithms	National	202621008644	28th Jan 2026	13th Mar. 2026	
49	Mrs. Renuka V. Jadhav	Lightweight Spell-Checker utilizing Wagner-Fischer edit-Distance with Optimized Dictionary	National	202521123780	12th Aug. 2025	23rd Jan 2026	
50	Dr. Sagar B. Patil Mr. Pramod A. Kharade	Zero-Knowledge Proof-Enabled Privacy System for Secure Multi-Part Interactions	National	202541133447 A	30th Dec. 2025	9th Jan 2026	
51	Dr. Sagar B. Patil	Cloud-Native Microservice Architecture for Scalable Real-Time Workload Automation	National	202541133451 A	30th Dec. 2025	9th Jan 2026	
52	1. Dr. Jayamala Kumar Patil 2. Dr. Kamalakar Ravindra Desai 3. Mr. Vinay Sampatrao Mandlik	PORTABLE AI-INTEGRATED TERRAIN-ADAPTIVE HAZARD DETECTION APPARATUS FOR ELECTRIFIED RAILWAY SAFETY	National	202521096815	8/10/2025	16/01/2026	
53	Mr. Vijay D. Chougule	Automatic Speed Regulation System for Electric Vehicles	National	202521078031 A	17th Aug. 2025	29th Aug. 2025	
54	Mr. Koustubh P. Nilje	Intelligent Parking Management System Using Real-Time Sensors and Machine Learning	National	2.02521E+11	14th Aug. 2025	12th Sep 2025	
55	1. Dr. Rajkumar Kundlik Chougale 2. Mr. Shree Santosh Kesarkar 3. Dr. Pralhad Bhaskar Patole 4. Mr. Raju Babu Lokapure 5. Dr. Praveenkumar Arjun Patel 6. Mr. Jayant Chandrakant Thorat 7. Mr. Ananda Shamrao Patil 8. Mr. Balaji Tukaram Mohite 9. Mr. Arjun Pandurang Kadam	Modular Solar Panel System with Adjustable Orientation for Maximum Efficiency.	National	202521079425 A	21/08/2025	12/9/2025	
56	Mrs. Renuka V. Jadhav	Advanced Music Source Isolation Employing Multi-Head Transformer	National	2.02521E+11	10th Apr. 2025	2nd May 2025	
57	1. Dr. Rajkumar Kundlik Chougale, 3. Praveenkumar Arjun Patel, 4. Dr. Rahul Prakash Mirajkar	Deep learning based technique for Intrusion detection in IoT based Electric vehicle charging stations	National	202321043595 A	29/06/2023	4/8/2023	
58	Mr. Jayant C. Thorat	A Novel Anti-Inflammatory Composition Comprising Scopoletin Extracted from Cassia fistula Pods and its Pharmaceutical Applications	National	202521065817 A	10/7/2025	1/8/2025	
59	1. Mr. Jayant C. Thorat, 2. Miss. Sana M. Bagban	IoT-Based Fertilizer Optimization to Enhance Soil Nutrient Efficiency and Crop Yields	National	202421000000	9th Oct. 2024	15/11/2024	
60	Mrs. Dipali A. Alone Mrs. Radhika M. Mane	Bag Holder Device for Motor Cycle	National	405814-001	27th Jan 2024	28th Mar. 2024	
61	Mr. Pramod A. Kharade Dr. Sagar B. Patil	Crack Identification in Bridge Infrastructure Using a Convolutional Neural Network	National	202421000432	3rd Jan 2024	2nd Feb. 2024	
62	Dr. Rahul P. Mirajkar Dr. Praveenkumar A. Patel	Deep Learning Based Techniques for Intrusion Detection in IoT Based Electric Vehicle Charging Station	National	202321043595		4th Aug. 2023	
63	Dr. Rahul P. Mirajkar Dr. Praveenkumar A. Patel	Implementation of Techniques to Analyse the Role of Machine Learning in Linear Algebra	National	202331005288 A		10th Feb. 2023	
64	Mrs. Renuka V. Jadhav	Data-Driven Framework for Women Empowerment Based Decision-Making in Marketing and Business Economics	National	202611028563	3rd Oct. 2026		

65	5. Shree Santosh Kesarkar, 6. Mrs. Supriya Yogesh Naik, 7. Mr. Balaji Tukaram Mohite, 9. Mr. Tasgaonkar Vikas Vilas	MACHINE LEARNING-DRIVEN PEDAGOGY-AWAREQUALITY ASSURANCE SYSTEM FOR OUTCOME-BASED EDUCATION IN HIGHE	National	202621017995	18/02/2026		
66	1. Dr. Rajkumar Kundlik Chougale 2. Asit Rajakathar Kittur 3. Shree Santosh Kesarkar 4. Ranjeet Ramesh Suryawanshi 5. Gayatri Suryakant Ghorpade 6. Ananda Shamrao Patil 7. Jayant Chandrakant Thorat 8. Balaji Tukaram Mohite 9. Sana Munaf Bagban 10. Dr. Pralhad Bhaskar Patole	Design for Solar-Powered Garden Light	National	450003-001	28/02/2025		
67	Mr. Satish S. Kotwal Mr. Prasad J. Jadhav Mr. Vivek V. Mane Mr. Mayur M. More Mr. Nitish A. Mohite	Development of Artificial Intelligence Algorithms for Real Time Speed Estimation Based on Vehicle Detection	National	202321030905	30/04/2023		
68	Mr. Mayur M. More Mr. Nitish A. Mohite	Development of Artificial Intelligence Techniques for Modelling of Mechanical	National	202321031328	30/04/2023		