

**Patents**

Sr. No.	Title of the patent	Status (Filed/ Awarded)	Authors	Country for which the patent filed	Date of filing	Date of Issue/ Award	Application No.	Patent No	Commerci alized
1	A portable wearable smart medicine waist pouch	Awarded	Archana Chaudhari, Viraj Vhatkar, Vaishnavi Nagade, Apoorva Zolgikar, Sushrut Thete	India	2 Nov 2022	12 Sept 2022	202121050676	406383	No
2	An artificial intelligence based real time wearable audio visual system for sign language interpretation	Filed	Pramod Kanjalkar	India	9 <sup>th</sup> April 2023	--	202321026374	--	No
3	System for door safety using artificial intelligence	Granted	Pramod Kanjalkar	India	28 <sup>th</sup> Feb 2023	4 <sup>th</sup> March 2023	201921016975	424056	No
4	An early fire detection system with audio visual alarm	Filed	Pramod Kanjalkar	India	24 <sup>th</sup> April 2023	--	202321029531	--	No
5	A portable automatic extinguishing and collection system for highly polluting lit cigarette butts	Filed	Pramod Kanjalkar	India	26 <sup>th</sup> April 2023	--	202321030183	--	No
6	A solar and grid power hybrid water pumping system	Filed	Pramod Kanjalkar and Dr. Praveen Pol	India	25 <sup>th</sup> April 2023	--	202321029662	--	No
7	Smart water tap system	Filed	Manisha Mhetre	South Africa	28 <sup>th</sup> Feb 2023	--	2023/03208	--	No
8	Non-invasive hemoglobin level	Filed	Manisha Mhetre	South Africa	28 <sup>th</sup> Feb 2023	--	2023/03196	--	No

	screening and indication system								
9	Advanced digital board using virtual pen	Filed	Manisha Mhetre	South Africa	28 <sup>th</sup> Feb 2023	--	2023/03285	--	No
10	A portable device to convert text language to Braille language and vice versa	Filed	Manisha Mhetre	Indian	2 <sup>nd</sup> Sept 2022	30 <sup>th</sup> Nov 2022	202221042161	--	No
11	A system for vegetable and fruits ripeness detection by color w-tf	Filed	Archana Chaudhari	South Africa	28 <sup>th</sup> Feb 2023	--	2023/03293	--	No
12	IoT enable face shield	Filed	Archana Chaudhari	India	9 <sup>th</sup> April 2023	--	202321026373	--	No
13	System for congestion control using congestion location indicator and supporting data collector nodes in wsn's using ml	Granted	Archana Chaudhari	South Africa		28 <sup>th</sup> Feb 2023	2022/12899	--	No

### **Research Publications**

#### **Books Chapters Published (Please bold the authors from the department)**

Sr. No.	Book Title	Chapter number and Name	Primary Author	Secondary Author(s) (write NIL if single authored)	Book Edition	Is the book edited?	Publisher	Place of publication	Publication Year	ISBN/ ISSN No
1	Computational Intelligence in Image and Video Processing	10	Archana Chaudhari	Nikita Kotwal, Gauri Unnithan, Anaya Pawar	1	Yes	CRC Press, Taylor and Francis Group		2023	9781003218111

**Journal Publication (Please bold the authors from the department)**

Sr. No	Title of the publication	Primary Author	Secondary Author(s)	Name of the Journal	Impact Factor	National / International	Peer Reviewed? (Yes/No)	Is it an e-journal?	Area of Specialization	Month of publication	Date of publication	Volume	Edition No.	ISBN / ISSN
1	Determination of Some Elastic Constants of Materials Using Impact Analysis	Vijaykumar Bhanuse	Sanika Patankar, Jayant Kulkarni	Journal of Vibration Engineering and Technologies	2.33	International	Yes	No	Impact and Vibration Analysis	Nov 2022	2 <sup>nd</sup> Nov 2022	12	-	2523-3920
2	A high efficiency modified forward Converter for Solar Photovoltaic Applications	Dr. Praveen Pol		Electric Power Components and Systems	1.276	International	Yes	No	Electronics	Feb 2023	16 Feb 2023	51-6	-	1532 5016
3	Predictive Analysis of Adverse Drug effects using Machine Learning	Shilpa Sondkar	Atharva Sarde, Mayur Badgajar, Gargee Athayle	IJRASET	--	International	Yes	No			2 <sup>nd</sup> Jan 2023			<a href="https://doi.org/10.22214/ijraset.2022.48058">https://doi.org/10.22214/ijraset.2022.48058</a>

4	Reconstruction of an Image Based on 13/19 Triplet Half-Band Wavelet Filter Bank and Orthogonal Matching Pursuit	Pramod Kanjalkar		International Journal on Recent and Innovation Trends in Computing and Communication	--	International	Yes	No		Dec 2022		10(1)	241-6	2321-8169
5	Age and Gender Detection	Pramod Kanjalkar		International Journal of Innovative Science and Research Technology	--	International	Yes	No		Nov 2022	20 <sup>th</sup> Nov 2022			2456-2165
6	Crowdfunding Donation System Using Smart Contract and Ethereum	Pramod Kanjalkar		NOVYI MIR Research Journal		International	Yes	No		May 2023	24 <sup>th</sup> ay 2023			0130-7673
7	Triboelectric Nanogenerator-Based Vibration Energy Harvester Using Bio-Inspired Microparticles and	Manisha Mhetre		Energies		International	Yes	No		Jan 23				

	Mechanical Motion Amplification													
8	Music Genre Classifier	Manisha Mhetre		High Technology Letters		International	Yes	No		Jan 23				
9	The Fitness Guide	Manisha Mhetre		GIS Science Journal		International	Yes	No						
10	Material Characterization Based on a Comparative Analysis of Various Metals Elongations	Manisha Mhetre		IJRASET		International	Yes	No						
11	Cleanzo: Vacuum Cleaner with Obstacle Detection using Bluetooth	Manisha Mhetre		IJRASET		International	Yes	No						
12	Vision Application for Visually Impaired People	Manisha Mhetre		IJRASET		International	Yes	No						
13	MRI Image-Based Automatic Segmentation and Classification of Brain Tumor and Swelling Using Novel	Kapil Munda	Jayant Kulkarni	International Journal of Image and Graphics		International	Yes	No						1793-6756

	Methodologies													
14	Electric components testing and analysis	Vijaykumar Bhanuse		GIS Science Journal						2022	2022	11(9)		1869-9391
15	SMART FLOOR CLEANER	Vijaykumar Bhanuse		Journal of Emerging Technologies and Innovative Research						2023	April 2023	10(4)		2349-5162
16	IntelliStick	Archana Chaudhari	Sakshi Sawant, Isha Tayade	International Journal of Creative Research Thoughts						2023	21 <sup>st</sup> May 2023	11(5)	665-668	2320-2882
17	Vehicle number plate detection	Archana Chaudhari	Mobin Shaikh, Faizan Shaikh	NOVYI MIR Research Journal						2023	May 2023	8(5)		0130-7673
18	Development of Automated Trash Collecting Boat using Machine Learning	Anil Kadu		International Research Journal of Engineering and Technology						2023	May 2023	10(5)		2395-0072
19	Design and Development of Three Factor Authentication System for Smart Lock	Anil Kadu		GIS Science Journal						2023	May 2023			1869-9391
20	Comparison of Signal	Jitendra Gaikwa	Prithviraj Kamalapur	International						2023				2321-9653

	Processing Methods for Bearing Fault Detection	d, Sanika Patankar	e, Prasad Patil, Tejas Kamble, Sumit Padole, Naseer Lahwal	Journal for Research in Applied Science										
21	Automated Doors And Windows Using Voice Command	Jitendra Gaikwad	Omkar Pawar, Onkar Pharande	NOVYI MIR Research Journal								8(5)		0130-7673
22	Vision Based Pothole Detection And Mapping System	Jitendra Gaikwad	Varad Pingle, Omkar Yeote, Ronit Pokharan	NOVYI MIR Research Journal								8(5)		0130-7673
23	Ingenious EV Charging Station with Green On-Grid Electricity and Wireless Charging	Jitendra Gaikwad	Nisarg Gandhi, Sarthak Pagar, Akarsh Patankar, Vipul Patil	NOVYI MIR Research Journal								8(5)		0130-7673
24	Water Cooling System of PV Panel	Jitendra Gaikwad	Pushkar Nerpagar, Anjali Patil, Raj Patil, Salil Patil	NOVYI MIR Research Journal								8(5)		0130-7673
25	Design and Development of Underground Cable Fault Detection and Alerting	Jitendra Gaikwad	Priti Pukale, Aarya Pittulwar	International Journal of Scientific Research in Engineeri								7(5)		2582-3930

System using GSM and GSM Modul			ng And Managem ent										
--------------------------------	--	--	--------------------	--	--	--	--	--	--	--	--	--	--

**Conference Publication (Please bold the authors from the department)**

Sr. No.	Title of the publication	Primary Author	Secondary Author(s)	Name of the Conference	National/ International	Date of the conference	Location of the conference	Page Numbers	Place of publication	Publisher of the proceedings
1	Corrosion Detection Using Deep Learning And Custom Object Detection	Prof. Kapil Mundada		2022 2 n d Asian Conference on Innovation in Technology (ASIANCON)	International	26th & 28th August 2022	Pimpri Chinchwad College of Engineering & Research ( PCCOER) , Pune			
2	Experimental analysis of Deep learning algorithms used in Brain Tumor Classification	Prof. Kapil Mundada and Dr. Jayant Kulkarni	Toufiq	3rd Congress on intelligent systems CIS2022	International	5 <sup>th</sup> and 6 <sup>th</sup> Sept 2022	Christ Deemed to be University, Bangalore, India			Springer
3	An approach for clustering and classification of Alumina employment information	Dr. Shilpa Sondkar, Dr. Archana Chaudhari	Shlok Doshi, Ajinkya Gad, Rahul Borole	2022 IEEE Global Conference on Computing, Power and Communication Technologies (GlobConPT)	International	23 <sup>rd</sup> and 24 <sup>th</sup> Sept2022	NIT Silchur			Springer
4	EV's Lithium ion Battery Heating Analysis	Prof. Vijaykumar Bhanuse	Krishna Kalaskar, Swapnil Irkate, Varun Jaybhaye, Amogh Dongre,	ICICSA 2022	International	23 <sup>rd</sup> and 24 <sup>th</sup> Sept2022	NIT Silchur			Springer

5	Efficiency of Machine Learning Algorithms in Disease Prediction	Prof. Anil Kadu	Swarali Pathak	ICICSA 2022	International	23 <sup>rd</sup> and 24 <sup>th</sup> Sept2022	NIT Silchur			Springer
6	Comparative Analysis of Machine Learning Algorithms for Phishing Website Detection	Dr. Archana Chaudhari	Omkar Gore	ICICSA 2022	International	23 <sup>rd</sup> and 24 <sup>th</sup> Sept2022	NIT Silchur			Springer
7	Analysis of Hate Speech Recognition using SVM and Naive Baye's Classification	Dr. Archana Chaudhari	Rahul Borole	ICICSA 2022	International	23 <sup>rd</sup> and 24 <sup>th</sup> Sept2022	NIT Silchur			Springer
8	An Approach for Clustering and Classification of Alumni Employment Information	Dr. Shilpa Sondkar, Dr. Archana Chaudhari	Shlok Doshi, Rahul Borole, Aditya Gad	2022 IEEE Global Conference on Computing, Power and Communication Technologies (GlobConPT)	International	23 <sup>rd</sup> and 25 <sup>th</sup> Sept2022	New Delhi			IEEE
9	Fruit Freshness detection using CNN	Archana Chaudhari	Shekhar Shegaonkar, Krushna Rudrawar, Shaunak Joshi, Shruti Tibile, Isha Tayade	2022 International Conference of Futuristic Technologies, Belgavi, Karnatak, India, INCOFT 2022	International	25-27 <sup>th</sup> Nov 2022	Belgavi			IEEE

10	Design and implementation of Garbage detection and classification using YOLO-V5	Anil Kadu	Achyut Mohata	International Conference on Emerging Electronics and Automation, NIT Silchur Assam	International	16-18 Dec 2022	Assam		Pune	Springer
11	Parkinson's Disease Detection: Comparative Study Using Different Machine Learning Algorithms	Vijaykumar Bhanuse	Ankita Chirame, Isa Beri	3 <sup>rd</sup> International conference on Computer Vision, High Performance Computing, Smart Devices and Networks (CHSN-2022)	International	28-29 Dec 2022	JNTU Kakinada			Springer
12	Predictions of Energy Consumption of Buildings' Life Cycle to Mitigate the Effects of Climate Change with a Focus on Energy Efficiency	Shilpa Sondkar	Prajyot Patil	2022 IEEE Pune Section International Conference (PuneCon)	International	19 <sup>th</sup> Jan 2023	Pune, India			IEEE
13	Hybrid Gradient Boost based Heart Failure Prediction System	Shilpa Sondkar	Atharva Sarde, Mayur Badgujar, Gargee Athayle	2023 International Conference on Emerging Smart Computing and Informatics (ESCI), Pune, India, 2023	International	March 2023	Pune, India	1-6	Pune	IEEE
14	Inventory Management in Retail Stores	Pramod Kanjalkar		2 <sup>nd</sup> International Conference on	International	May 2023	Pune		Pune	Springer

				Intelligent systems and application (ICISA 2023)						
15	Intelligent Surveillance Tower for Detection of the Drone from the other aerial objects using Deep learning	Pramod Kanjalkar		2 <sup>nd</sup> International Conference on Intelligent systems and application (ICISA 2023)	International	May 2023	Pune		Pune	Springer
16	Smart IV Saline Monitoring System using RF Transmitter	Manisha Mhetre	Varun Manwatkar , Krushna More,Amit Mohite	International Conference on Recent Advances in Science, Engineering, Technology and Management (ICRASET - 2023)	International	March 2023	Pune		Pune	IEEE
17	Wearable Smart Glove for Personal Health Tracking	Manisha Mhetre	Aryan Patil, Aditya Patil, Pritiksha Pardhi, Bhavesh Patil	International Conference on Recent Advances in Science, Engineering, Technology and Management (ICRASET - 2023)	International	March 2023	Pune		Pune	IEEE
18	IOT Based Non Invasive Sugar Level Measurement from Saliva using Capacitance	Manisha Mhetre	Mrunmayee Kulkarn	International Conference on Recent Advances in Science, Engineering, Technology and	International	March 2023	Pune		Pune	IEEE

	Method			Management (ICRASET - 2023)						
19	Smart Bus Real-Time Tracking System using GSM and GPS module	Kapil Mundada	Sumedh Patti, Tejas Rajguru, Pushkaraj Savaji, Sayali Shambharkar	ICT4SD 2023		Aug 2023				
20	Harmonic Analysis of Mild steel plate.	Vijaykumar Bhanuse	Sanika Patankar, Jayant Kulkarni	Emerging Smart Computing Conference 2023		March 2023	AISSMS IOIT Pune		Pune	IEEE
21	Estimate elastic constant of Mild steel plate using welch's periodogram method	Vijaykumar Bhanuse	Sanika Patankar, Jayant Kulkarni	International Conference on Intelligent Computing & Networking (IC-ICN 2023)		Feb 2023	Thakur College of Engineering Mumbai		Mumbai	
22	Parkinson's Disease Detection: Comparative Study Using Different Machine Learning Algorithms	Vijaykumar Bhanuse		3rd International Conference on Computer Vision, High Performance Computing, Smart Devices and Networks (CHSN 2022)		Dec 2022	JNTU Kakinada		Kakinada	Springer
23	Optimizing the ESP8266-based Industry Protection System for Real-Time Response	Vijaykumar Bhanuse		11th International Conference on Contemporary Engineering and Technology		May 2023	Chennai			

				2023 (ICCET)						
24	Iot based manhol detection system	Vijaykumar Bhanuse		International Conference on Advances in Computer Engineering, Communications Systems and Business Development ICACECSBD-2023		May2023				
25	Comparative Analysis of Recent Face Detection Methods Implemented for Age and Gender Detection	Archana Chaudhari	Riya Gokhale, Purva Shendge, Nikita Sawant	International Conference on Intelligent Computing and Networking		Feb 2023	Mumbai			Springer
26	Real Time Implementation of OCPP Communication Protocol for Electric Vehicle supply equipment	Archana Chaudhari	Gayatri Shinde, Shekhar Shegaonkar, Sanskruti Simpale	2 nd International Conference on Sustainable Computing and Data Communication Systems ICSCDS		March 2023	Erode			IEEE
27	Development of Robotic Arm Prototype	Archana Chaudhari	Kaustubh Rao, Krushna Rudwar, Pratik Randhwan, Pratamesh Raut	2 nd International Conference on Sustainable Computing and Data Communication Systems ICSCDS		March 2023	Erode			IEEE
28	IOT Based air	Archaan	Sharvit	First		May 2023				IEEE

	quality detection in truck cabins	Chaudahri	Shewade, Tinish Ughe, Awanti Tingale, Pratamesh Talekar, Siddhesh Shirsat	International Conference on Signal Processing, Computation, Electronics, Power and Telecommunication IConSCEPT 2023						
29	Design and Development of IoT based Smart Jacket for Farmers	Anil Kadu		3 <sup>rd</sup> International Conference on Soft computing for security Applications ICSCS 2023		April 2023	Salem Tamil Nadu			Springer
30	IOT Based Solar Car Controlling Over a WiFi Network	Anil Kadu		International Conference on Management, Engineering and Social Science (ICMESS-2023)			Delhi			
31	Design and Development of an Interactive System for the Disabled Person	Anil Kadu		THE 14th International Conference on Computing, Communication and Networking Technologies (ICCCNT)		July 2023	Delhi			IEEE
32	Image registration and Shi Tomasi and SIFT	Sanika Patankar		2023 2 <sup>nd</sup> International Conference for Innovation in Technology (INOCON),		March 2023	Banglore			IEEE

33	A Closed Space Parameter Monitoring and Visualization System using Power Business Intelligence (Power BI)	Praveen Pol	Samyak Jain, Minal A. Gaydhane, Omkar M. Koli, Rutuj P. Saraf, Gayatri C. Mhaske	2023 2nd International Conference for Innovation in Technology (INOCON)		March 2023	Banglore			IEEE
----	---	-------------	--	---	--	------------	----------	--	--	------