3.3.3 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during year

Sl. No.	Name of the teacher	Title of the book/chapters published	Title of the proceedings of the conference	Name of the conference	Year of publication	ISBN/ISSN number of the proceeding	Name of the publisher
1	Hemant T. Ingale	Embedded Systems and IOT			2023-24	ISBN: 978-93-6010-440-5	Prime International Publication (PIP), (Registered under Ministry of SME, Govt. of India)
2	Hemraj V Dhande	Entrepreneurship Development & Startup			2023-24	ISBN: 978-93-5757-574-4	Scientific International Publishing House (SIPH), (Registered under Ministry of SME, Govt. of India)
3	Maheshkumar N Patil	Entrepreneurship Development & Startup			2023-24	ISBN: 978-93-5757-574-4	Scientific International Publishing House (SIPH), (Registered under Ministry of SME, Govt. of India)
4	Vijay D Chaudhari	Entrepreneurship Development & Startup			2023-24	ISBN: 978-93-5757-574-4	Scientific International Publishing House (SIPH), (Registered under Ministry of SME, Govt. of India)
5	Vijay D Chaudhari	Embedded Systems and IOT			2023-24	ISBN: 978-93-6010-440-5	Prime International Publication (PIP), (Registered under Ministry of SME, Govt. of India)

6	Hemraj V Dhande	Embedded Systems and IOT			2023-24	ISBN: 978-93-6010-440-5	Prime International Publication (PIP), (Registered under Ministry of SME, Govt. of India)
7	Rajendra V. Patil	Embedded Systems and IOT			2023-24	ISBN: 978-93-6010-440-5	Prime International Publication (PIP), (Registered under Ministry of SME, Govt. of India)
8	Vijay D Chaudhari	Artificial Intelligence and Machine Learning			2023-24	ISBN: 978-93-6010-033-9	Prime International Publication (PIP), (Registered under Ministry of SME, Govt. of India)
9	Maheshkumar N Patil	Artificial Intelligence and Machine Learning			2023-24	ISBN: 978-93-6010-033-9	Prime International Publication (PIP), (Registered under Ministry of SME, Govt. of India)
10	Anilkumar D. Vishwakarma	Artificial Intelligence and Machine Learning			2023-24	ISBN: 978-93-6010-033-9	Prime International Publication (PIP), (Registered under Ministry of SME, Govt. of India)
11	Hemant T Ingale	Literature Survey of Intelligent Irrigation	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur

12	Shaffeeque-Ur-Rehman Ansari	Literature Survey of Intelligent Irrigation	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
13	Dr. Anilkumar Dulichand Vishwakarma	Literature Survey of Intelligent Irrigation	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
14	Rajendra V. Patil	Literature Survey of Intelligent Irrigation	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur

15	Vijay D Chaudhari	Smart Wireless Notice Board using Wi-Fi Controller & Mobile Application	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
16	Dr. Ishwar S. Jadhav	Smart Wireless Notice Board using Wi-Fi Controller & Mobile Application	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
17	Dr. Ishwar S. Jadhav	Case Study: Rooftop Solar Power	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur

18	Hemraj V Dhande	Case Study: Rooftop Solar Power	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
19	Vijay D Chaudhari	Case Study: Rooftop Solar Power	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
20	Vijay D Chaudhari	Case Study: Solar Power Monitor Using IoT	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur

21	Dr. Ishwar S. Jadhav	Case Study: Solar Power Monitor Using IoT	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
22	Hemraj V Dhande	Case Study: Solar Power Monitor Using IoT	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
23	Hemant T Ingale	Case Study: Solar Power Monitor Using IoT	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur

24	Hemant T Ingale	A Review on Real Time ECG Parameters Monitoring	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
25	Dr. Anilkumar Dulichand Vishwakarma	A Review on Real Time ECG Parameters Monitoring	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
26	Rajendra V. Patil	A Review on Real Time ECG Parameters Monitoring	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur

27	Shaffeeque-Ur-Rehman Ansari	A Review on Real Time ECG Parameters Monitoring	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
28	Vijay D Chaudhari	Comprehensive Literature Survey on Vehicle Speed Control	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
29	Hemraj V Dhande	Comprehensive Literature Survey on Vehicle Speed Control	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur

30	Maheshkumar N. Patil	Comprehensive Literature Survey on Vehicle Speed Control	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
31	Hemant T Ingale	Comprehensive Literature Survey on Vehicle Speed Control	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
32	Hemraj V Dhande	IoT-based Solar Dryer with SMS and Web Logger	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur

33	Vijay D Chaudhari	Climate Change Intimation And Seed Sowing	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
34	Hemant T Ingale	Climate Change Intimation And Seed Sowing	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
35	Maheshkumar N. Patil	Drainage Blockage Wireless Sensor System	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur

36	Dr. Anilkumar Dulichand Vishwakarma	Application of AI ChatGPT with Arduino and Micropython	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication, Nagpur
37	Hemant T Ingale	Sculpting Tomorrow: A Chronicle of Science and Technology		International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-5-9	Innovative Scientific Publication, Nagpur
38	Rajendra V. Patil	Sculpting Tomorrow: A Chronicle of Science and Technology		International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISBN: 978-81-965128-5-9	Innovative Scientific Publication, Nagpur
39	Prof. Sachin R. Maheshri	Four Wheeler EV Batteries	Sculpting Tomorrow: A Chronicle of Science and Technology		2023-24	ISBN: 978-81-965128-5-9	Innovative Scientific Publication
40	Prof. Amit Mhaskar	Solar Air Conditioning	Sculpting Tomorrow: A Chronicle of Science and Technology		2023-24	ISBN: 978-81-965128-5-9	Innovative Scientific Publication

41	Nemichand K. Saini,	Analysis of Grid Connected Solar PV based Multi-Level Inverter System	Sculpting Tomorrow: A Chronicle of Science and Technology		2023-24	ISBN: 978-81-965128-5-9	Innovative Scientific Publication
42	Prof. Atul Barhate	Marks Management System for Academic	International Conference on Recent Advances in Engineering, Science and Technology – 2024 (ICRAEST-2024)		2023-24	ISBN: 978-81-965128-8-0	Innovative Scientific Publication
43	Prof. Bhavana Zambare	Pratibha_IJSSBT_Dec_2023	Intrnational Journal of Science spiritualaity , Busines & Technology		2023-24	ISSN:2278-3857	
44	Dr.Hemant Nehete	Performance optimization of chaff cutter			2023-24	ISBN10:8891710709	Walnut Publications
45	Dr.Hemant Nehete	Static analysis of tungsten carbide chaff cutter blade by finite element method	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISSN:2456-3463	International Journal of Innovations in Engineering and Science

46	Prof.Mayur Thakur	Design and Implementation of a Solar Collector Tracking System: A Review	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISSN:2456-3463	International Journal of Innovations in Engineering and Science
47	Dr.Hemant Nehete	Power generation by double cylinder engine	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISSN:2456-3463	International Journal of Innovations in Engineering and Science
48	Tushar Koli, Mayur Thakur, Kishor Mahajan, Dr.Vijaykumar Patil	A review on utilization of solar energy in solar water heaters integrated with phase change materials	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)	2023-24	ISSN:2456-3463	International Journal of Innovations in Engineering and Science

49	Mrs. Bhavana Zambare	Pharmacy Management System	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)		2023-24	ISBN: 978-81-962241-3-4	International Journal of Innovations in Engineering and Science
50	Prof. Nilesh Choudhari	Review: Stock Market Prediction Using Machine Learning	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)		2023-24	ISBN: 978-81-962241-3-5	International Journal of Innovations in Engineering and Science
51	Mrs. Bhavana Zambare	Online Birth Certification System	Proceedings of the International Conference on Recent Advances in Engineering, Science & Technology (ICRAEST-2024)		2023-24	ISBN: 978-81-962241-3-6	International Journal of Innovations in Engineering and Science
52	Prof. Prashant Shimpi	Conventional Neural Network For Brain Tumor Classification		International Journal of Innovations in Engineering and Science	2023-24		International Journal of Innovations in Engineering and Science

53	Dr.Lalita Patil	Performance of Black Cotton soil Reinforced with Randomly distributed Banana fibers		GEOLEAP-Geotechnic:learning, valuation,analysis &practice(15-17dec 2022at cochi)	2023-24	DOI:10.1007/978-981-97-1745-3	

(EE-5) Marks Management System for Academic

Rushikesh Bhagwat Sambare [1], Keshav Arun Divse [2], Aniket Rajendra Chaudhari [3], Tejas Anil Fegde [4], Akshay Gajanan Thakre[5], Prof. Atul Barhate [6]

1-3UG student, Dept. of Electrical Engineering, Godavari foundation's Godavari college of engineering, Jalgaon, Maharashtra, India.
4 Assistant Professor, Dept. of Electrical Engineering, Godavari foundation's Godavari college of engineering, Jalgaon, Maharashtra India.

Abstract -*The Marks Management System is a comprehensive web application designed to streamline the process of managing and organizing student marks within a college setting. The primary objective of this project is to centralize and efficiently manage all data related to student marks, ultimately providing a convenient and accessible platform for both administrative staff and students. The system encompasses a user- friendly interface that allows authorized administrative personnel to input, update, and maintain student marks seamlessly. Through secure login credentials, administrators can perform tasks such as add students, update student, entering semester-wise marks, updating results, and generating comprehensive reports and also provide notice to students. The system employs a robust database architecture to store and organize the marks data securely, ensuring data integrity and confidentiality. One of the key features of the Marks Management System is its accessibility for students. Through individual student logins, the system enables students to view their semester-wise results, track their academic progress, and access detailed mark sheets. This enhances transparency and empowers students to stay informed about their academic performance The project aims to address the following key objectives: • Centralized Data Management: Implement a centralized system to manage all student marks data efficiently. • User Authentication: Ensure secure login mechanisms for both administrators and students to access and interact with the system. • Data Security: Employ robust security measures to safeguard student data, ensuring confidentiality and integrity. • Result Generation: Facilitate the automated generation of semester-wise results and mark sheets for easy dissemination. • User- Friendly Interface: Design an intuitive and user-friendly interface to enhance the overall user experience for administrators and students.*

Keywords: *Accessibility, Confidentiality, Authentication, Centralized data*

(CSE-35) CONVOLUTIONAL NEURAL NETWORK FOR BRAIN TUMOR CLASSIFICATION

Velchand Hole[1], Prashant Shimpi[2], Nilesh Chaudhary[3]

[1]Research scholar, Asstt Professor. Velchand Hole , Godavari College of Engineering, Jalgaon, India, 425001, velchandhole29@gmail.com
[2]Research scholar, Asstt Professor. Prashant Shimpi , Godavari College of Engineering, Jalgaon, India, 425001, prashant.shimpi30@gmail.com
[3]Research scholar, Asstt Professor.Nilesh Chaudhay , Godavari College of Engineering, Jalgaon, India, 425001, nilesh.cont@gmail.com

ABSTRACT– *Accurate and unique mind tumor MR images classification performs an important role in scientific diagnosis and decision making for affected person remedy. The key challenge in MR pix classification is the semantic gap between the low-level visual records captured by means of the MRI device and the excessive-stage statistics perceived through the human evaluator. The conventional system mastering strategies for type awareness handiest on low-stage or excessive-degree capabilities, use some handcrafted features to reduce this gap and require accurate feature extraction and class techniques. Recent development on deep studying has proven incredible development and deep convolutional neural networks (CNNs) have succeeded within the photos class project. Deep gaining knowledge of is very effective for feature representation that may depict low-level and high-level records absolutely and embed the section of feature extraction and class into self-getting to know however require huge training dataset in general. For maximum scientific imaging scenarios, the training datasets are small, therefore, it is a tough project to practice the deep studying and train CNN from scratch at the small dataset. Aiming this trouble, we use a pretrained deep CNN model. Our method is more established because it does now not use any handcrafted capabilities, calls for minimal preprocessing and may gain common accuracy of ninety five.51% under 5-fold move-validation. We examine our outcomes not most effective with the traditional machine studying but additionally with deep gaining knowledge of strategies the use of CNNs. Experimental outcomes display that our proposed technique outperforms modern class at the MRI dataset*

Keywords *– Convolutional neural networks (CNNs), Grey-level co-occurrence matrix (GLCM), Magnetic resonance (MR)*

(CSE-36) Clustering of Fuzzy K-Means With Discriminative Embedding: A Review

Payal Rajput[1], Prof. Nilesh S. Vani[2]

[1]MTech.Student, Computer Science
Head, Computer Engg. Dep
Godavari College of Engineering, Jalgaon

ABSTRACT– *A popular clustering technique called fuzzy K-means (FKM) divides each data point into one or more groups according to how far it is from each cluster's centroid. Nonetheless, methods for mapping the data into a lower-dimensional space where the clustering can be carried out more successfully have been developed, such as discriminative embedding approaches. The current state of FKM clustering with discriminative embedding is reviewed in this paper, along with the primary methods and their uses. The difficulties and potential future directions of this field of study are also discussed.*

Keywords- *fuzzy K-Means, dimensionality reduction, most information, principal component analysis*

(CSE-33) A Detailed Estimates On Grid Computing And Applications

Mohammad.Muqeem[1], Rajashri.S.Shekokare[2], Shraddha Rajendra Mundada[3], Ashwini T. Devarale[4]

[1]Professor at School of Computer Science & Engineering, Sandip University, Nashik
Mtech III Semester appearing , Associate professor at KCE'SCOEM ,Jalgaon
Mtech I Semester appearing , Associate professor at KCE'SCOEM ,Jalgaon .
Mtech I Semester appearing , Associate professor at KCE'SCOEM ,Jalgaon
Muqeem.79@gmail.com, Shekokarerajashri@gmail.com,
Shraddha.mundada12@gmail.com, ashwinirajput@gmail.com

ABSTRACT– *Grid Computing defined as a network Computers working together to perform a particular task that would be different for a single machine . All machines over network works under similar protocol to act as a Virtual Super Computer . Task that can include analyzing Huge datasets or Simulating Situations that require High Computing Power. This Paper Mainly Focus on Grid Computing , basic features , difference Between Cloud Computing And Grid Computing ,Cluster Computing , Distributed Computing also highlights various applications of grid computing.*

Keywords – *Grid Computing, Cloud, Cluster*

(CSE-34) Instructor Performance Prediction Using Machine Learning

***Mitali mahendrasing Shinde[1]*, Prof. Nilesh S. Vani[2]**

Godavari College Of Engineering ,Jalgaon, Maharashtra 425001,
mitalishinde2811@gmail.com
Godavari College Of Engineering ,Jalgaon, Maharashtra 425001

ABSTRACT– *This research explores the application of machine learning algorithms—Support Vector Machine (SVM), Random Forest, k-Nearest Neighbors (KNN), and Decision Tree—in the prediction of instructor performance within educational settings. Traditional methods of evaluating instructors often suffer from subjectivity, limited metrics, and an inability to comprehensively capture teaching effectiveness. This study aims to bridge this gap by leveraging advanced machine learning techniques to develop a robust predictive model. Through a comprehensive analysis of existing literature, the research identifies the inadequacies of current evaluation systems and proposes a novel approach that integrates diverse data sources and algorithmic models for accurate and unbiased instructor performance prediction. The findings of this study contribute to the refinement of educational assessment methodologies, fostering a more data-driven and objective means of gauging instructor effectiveness*

Keywords – *data mining machine learning*

(CSE-31) Accident Prevention System

Mrs. M. A. Shaikh[1], Miss. Shrushti Patil[2], Miss. Shraddha Deore[3], Miss. Samruddhi Kshatriya[4], Miss. Ashwini Dhikale[5]

[1] *Lecturer, K.K.Wagh Polytechnic, Nashik.,* [2,3,4,5] *Students*
mashaikh@kkwagh.edu.in, *sdeore475@gmail.com, shrushtipatil2545@gmail.com* ,
samruddhikshatriya02@gmail.com , kndhikale@gmail.com

ABSTRACT– *Car accidents truly can be considered as one of the most disastrous phenomena. Through the reasons can be different for those accidents like the main reason can be drivers unawareness as well as speed. With the help of IOT we can try to prevent as well as reduce the number of accidents. IOT (Things Of Internet), is one of the most growing technology in IT industries, which is used to decrease burden of human beings. In this, the system will monitor and help to reduce those accidents. This paper discusses the process of developing accident prevention system. With the growing population the use of cars as becomes superfluous and this has led to increase in number of accidents at the alarm rate. In this project, we first applied Eclat algorithm to group the crime locations into 0 level, 1 level, 2 level accident location. Eclat algorithm takes accident level count as a factor to cluster the locations. Then we will use association rule mining to identify these locations. The rules show different factors associated with road Accident at different locations. For all this we will provide Accident data that are issue from Transport Ministry Officer. Safety driving suggestions will be marked based on Accident data. This idea is designed based on Arduino Microcontroller board and helps in controlling accidents. The system will also notify you if a driver has been that the speed limit has been exceeded then it is indicated through buzzer and displays on LCD. When accelerometer is triggered, it helps in detecting the accident and sending the signal to the Arduino of the system. The GPS technology is used to locate the position of the car in the form of latitude and longitude coordinates. So that police can trace the location through the GPS modem and necessary action will be taken. This idea is useful in preventing the accidents.*

Keywords *– Eclat algorithm, Clustering, Classification, GPS tracking, Accident*

(CSE-32) Deciphering Hyperspectral Image Classification: A Comprehensive Exploration

Yogita H. Dhande[1], Pallavi P. Surwade[2], Hemraj V. Dhande[3]

1,2,3 Assistant Professor
[1,2] G.H.Raisoni Institute of Engineering & Business Management, Jalgaon, India,425001
[3] GF's Godavari College of Engineering, Jalgaon, India, 425003
yogita.dhande@raisoni.net[1], Pallavi.surwade@raisoni.net[2], hemrajd99@gmail.com[3]

ABSTRACT– *Hyperspectral imaging is a sophisticated technique that captures multidimensional images of objects by combining imaging and spectroscopic technologies. With hyperspectral imaging (HSI), we can explore both external and internal characteristics of various objects. Each object possesses a unique spectral signature based on variations in reflectance or emittance of its materials. Due to its non-destructive nature, hyperspectral imaging is increasingly penetrating fields such as food production, medical diagnosis, agriculture, pharmaceuticals, recycling, and environmental monitoring. This paper aims to review different methods of hyperspectral image classification, including traditional, deep learning, and pre-trained classifier approaches.*

Keywords *– Deep learning, CNN, Spectral, Spatial*

(CSE-16) ROLE OF BIG DATA ANALYTICS IN INDUSTRY 4.0

Bhagyashri S. Patil[1], Nilesh Vani[2]

UG Students[1], GF's GCOE, Jalgaon
E-Mail:patilbhagyashri1693@gmail.com

ABSTRACT– *Industry 4.0 is a term used for the fourth industrial revolution: the digitization and automation of manufacturing. Advances in networking, machine learning, data analytics, robotics, 3D printing, and other technologies are making vast improvements on industrial processes and reducing our dependence on human labor and decision-making. By leaning into digital solutions, manufacturing can reduce human error, shorten time to market, and increase the speed at which industrial processes can adapt to new information. Now a day, big data in industry 4.0 is a major concern for current research for the organizations that are motivated to invest in these kinds of projects. The big data are known as the large quantity of data collected from various resources that potentially could be analyzed and provide valuable insights and patterns. In industry 4.0 the production of data is massive, and thus, provides the basis for analysis and important information extraction. The paper first introduces two major areas Industry 4.0 and Big Data Analytics (BDA) with its concepts, characteristics and processes. The main aim of the paper is to provide the impact of big data analytics in industry 4.0 environments by providing both a positive and a negative perspective of the subject.*

Keywords – *Industry 4.0, Big Data Analytics, 5 V's of big data*

(CSE-17) Observational Research on the Vehicle Number Plate Detection System

[1]Nayana S. Patil, [2]Nilesh Choudhary

UG Student[1], Asstt. Prof.[2]
Computer Engg dept., Godavari College Of Engineering, Jalgaon.
Email: nayanapatil1502@gmail.com

ABSTRACT– *A vehicle number plate detection system is a computer vision application designed to automatically identify and recognize license plates from images or video streams. The system typically involves preprocessing to enhance image quality, followed by number plate localization to isolate relevant regions. Character segmentation and recognition techniques are applied to extract alphanumeric information. Post-processing steps may include error correction and format verification. The system outputs the detected number plate information, and it may integrate with databases or trigger alerts based on the recognized data. Continuous evaluation and optimization ensure reliable performance.. In this article, we will discuss about how vehicle number plate detection system perform?*

Keywords – *NUmber plate, plate recognition,, detection*

paradigm's success. This article discusses the deployment and design of an Internet of Things (IoT)-enabled Underground Drainage and Manhole Monitoring System (UDMS). This design prioritizes cheap cost, minimal maintenance, rapid deployment, many optical communication sensors, a long service life, and a high level of service quality. The suggested model includes a system for observing the water level, air temperature, and pressure within a manhole and determining if there is an increase in water level and tension between two manholes.

Keywords – *IoT, Sensor, WSN, Blockages, optical*

(E&TC-32) Kidney Disease Detection Using Deep Learning Techniques

Anup B Jayaswal[1], Mahesh B Dembrani[2], Tushar H Jaware[3], Ravindra D Badgujar[4]

1Research Scholar, R C Patel Institute of Technology, Shirpur, India 425405, jay.anupkumar@gmail.com
2 Asso. Professor, R C Patel Institute of Technology, Shirpur, India 425405, mahesh.dembrani@gmail.com
3Asso. Professor, R C Patel Institute of Technology, Shirpur, India 425405, tusharjaware@gmail.com
4 Asso. Professor, R C Patel Institute of Technology, Shirpur, India 425405, ravindrabadgujar12683@gmail.com

Abstract- *Kidney disease is still a major global health concern that requires prompt and precise diagnostic methods in order to be effectively managed. This study explores the use of deep learning methods for kidney disease identification, namely the You Only Look One (YOLO) object detection framework. Leveraging YOLO's efficiency in object localization and segmentation, we aim to enhance diagnostic accuracy by precisely identifying regions of interest within medical images. A comprehensive review of existing literature underscores the limitations of conventional diagnostic approaches and underscores the promise of deep learning in improving diagnostic capabilities. The study employs convolutional neural networks (CNNs) in conjunction with the YOLO framework to analyze diverse datasets encompassing patient demographics, clinical parameters, and medical imaging. Methodological details, including data preprocessing steps and model architectures, are elucidated. The results of the experiments show that the suggested deep learning models are effective, outperforming other approaches in terms of performance indicators. The findings underscore the transformative potential of deep learning, particularly YOLO-based segmentation, in revolutionizing kidney disease diagnosis. This research contributes to advancing the frontier of medical diagnostics, facilitating early disease detection and improving patient outcomes*

Keywords – *Chronic Diseases, Kidney, Deep learning, Segmentation, CNN, Yolo*

(E&TC-35) IoT-based Solar Dryer with SMS and Web Logger

Tushar H. Rathode[1], Sayyed Alireza Sayyed Aliasgar[2], Hiten P. Mahajan[3], Hemraj V. Dhande[4]

[1,2,3] UG student . [4]Asstt, Professor
[1,2,3,4] E& TC Engg dept, GF's Godavari College of Engineering, Jalgaon, India, 425003.
tusharrathod773@gmail.com[1]. Shadabdesign9801@gmail.com, Hitenmahajandj17@gmail.com, hemrajd99@gmail.com4

Abstract- *Various agricultural and culinary products are dried to extend their shelf lives, mostly for marine foods. In many coastal locations of the Philippines, drying fish traditionally is still practiced, although study has shown that due to weather conditions and other factors, this technique is not seen*

(E&TC-30) Comprehensive Literature Survey on Vehicle Speed Control

Priya Gupta [1], Vijay D. Chaudhari[2]. Hemraj V. Dhande[3], Maheshkumar N. Patil[4], Hemant T. Ingale[5]

[1]PG student, [232,4,5] Assistant Professor
[1,2,3,4,5] E&TC dept, MTech (VLSI & ES), GF's Godavari College of Engg, Jalgaon - 425003, Maharashtra, India.
prgpt75@gmail.com[1], vinuda.chaudhari@gmail.com[2], maheshninupatil@gmail.com[4]

Abstract- *Now a day's people are facing further problems about road accident in all over world, currently accident is the most essential issue far and wide in the world; utmost of accident are due to rush driving of vehicle by motorist on public road indeed in confined areas. In recent study millions of people failed in India due to road accident. Main reason of road accident is people one who driving vehicle veritably presto, drive vehicle by drinking alcohol, some people doesn't use Seatbelt, frazzle of motorist. Hence business operation is important in big megacity. Then in this paper, trying to reproduce the comprehensive literature study related to the colorful vehicle speed control fashion, accident discovery that are necessary to reduce accident to save precious life of one. In once days, the exploration is gone on colorful vehicle speed control fashion like traditional automotive mechanical system systems. Due to the advancement in recent ways, some vehicle speed control systems are grounded on microcontroller, GSM, GPS, numerous different detector like alcohol discovery, close eye discovery, RFID, Sigsbee, Wi-Fi, CAN machine protocol and radio frequencies system, etc. Each system has their own advantages and disadvantages. In utmost of systems, SMS fashion is used for communication so the system will come cost effective, more dependable and it'll take lower time to deliver communication. As accident becomes major problem currently, the speed covering systems moment needs to make use of the rearmost technology. In some papers, the authors have presented different vehicle speed monitoring system is bedded in vehicle or on road to control speed of vehicle automatically. Occasionally system will check whether condition like motorist frazzle, alcohol discovery, seat belt etc. Also the enhanced security systems are available grounded on android platform, wireless ways and bedded systems. A number of modifications take places in colorful vehicle speed control fashion from the last many times, in coming coming times numerous changes will takes place.*

Keywords – *Vehicle speed, GSM, GPS, Wi-Fi, CAN*

(E&TC-31) WIRELESS BLOCKAGE DETECTION USING SENSOR NETWORK WITH IoT DEVICES

Mrs. Swati Ajay Gandhi[1], Dr. Deepak P. Patil [2]

[1] Research Scholar, Sandip Foundation , Sandip Institute of Engineering Research and Management ,Nasik,Maharashrta,India,swati.gandhi25@gmail.com
[2]Research Guide & Professor , Sandip Foundation ,Sandip Institute of Engineering Research and Management ,Nasik,Maharashrta,India,dipakpatil25@gmail.com

Abstract- *The Internet of Things (IoT) is a system of physical items connected through communication devices to sensor networks that enables communication and automated operations between the natural and digital worlds. IoT was born because of the ability of computers to retrieve data from objects and devices without requiring human contact. Nonetheless, it sought to transcend the limitations of manually input data to attain cost, precision, and generality. The sensor system is critical to the IoT*

(E&TC-28) Case Study: Solar Power Monitor Using IoT

Tushar Dhake[1], Vijay D. Chaudhari[2]. Dr. Ishwar S. Jadhav[3], Hemraj V. Dhande [4], Hemant T. Ingale[5]

[1]PG student, [2] Assistant Professor
[1,2,3,4,5] E&TC dept, MTech (VLSI & ES),
GF's Godavari College of Engg, Jalgaon - 425003, Maharashtra, India.
tushardhake@gmail.com [1], vinuda.chaudhari@gmail.com[2],
ishwar.jadhav@rediffmail.com, hemrajd99@gmail.com[4]

Abstract- *Using the Internet of Things Technology for supervising solar power generation can greatly enhance the performance, monitoring and maintenance of the plant. With advancement of technologies the cost of renewable energy equipment is going down globally encouraging large scale solar plant installations. This massive scale of solar system deployment requires sophisticated systems for automation of the plant monitoring remotely using web based interfaces as majority of them are installed in inaccessible location as and thus unable to be monitored from a dedicated location. The Project is based on implementation of new cost effective methodology based on IoT to remotely monitoring a solar plant for performance monitoring.*

Keywords – *Internet of Things (IoT), NODE MCU, GSMA, PV, Solar panel, LCD, Things Speak*

(E&TC-29) A Review on Real Time ECG ParametersMonitoring

Ojas Patharwat[1], Dr. Anil D. Vishwakarma[2], Rajendra V. Patil[3], Shafique Ansari [4],Maheshkumar N. Patil[5]

[1] PG Scholar, [3,4,5] Assistant Prof. , [2] Asso. Professor
[1,2,3,4,5] Dept of E&TC Engg. MTech (VES), GF's Godavari COE Jalgaon -425001
ojaswini83@gmail.com[1], anil18vishwakarma@gmail.com[2],
rajendravpatil1966@gmail.com[3]

Abstract- *Real time sense and examination of heart thumps is today's necessity in the field of therapeutic gadgets. Different parameters like heart rate and heart beat wave shape are utilized for investigation like ECG examination to remove the different parameters helpful to discover the ordinariness of individual. This analyzer can at first predict the ordinary level so that any individual can check the ordinariness of his heart rate and heart status. This can be made delicate so that if any probability of any damage discovered, framework can teach to us about taking specialists help. Different module progressively and ongoing information examination are performed to discover the typicality or to discover the parameters which can be dissected by specialists. This paper outlines the different frameworks created in comparable sense.*

Keywords – *Biomedical signal processing, Electrocardiogram (ECG), heart rate (HR), heart rate variability (HRV), CLOUD*

(E&TC-26) Literature Survey of Intelligent Irrigation

Vidya D. Pardeshi[1], Hemant T. Ingale[2], Shafique Ansari [3], Dr. Anil D. Vishwakarma[4], Rajendra V. Patil[5]

[1] PG Scholar, [2,3] Assistant Prof., [4,5] Asso. Professor
[1,2,3,4,5] Dept of E&TC Engg. MTech (VES), GF's Godavari COE Jalgaon -425001
vidyarajput282017@gmail.com[1], hetui@rediffmail.com[2], anil18vishwakarma@gmail.com[4]

Abstract- *Irrigation is the process of artificially supplying water to land where crops are cultivated. Traditionally hand pumps, canal water and rainfall were a major source of water supply for irrigation. This method has led to severe drawbacks like under irrigation, over-irrigation which in turn causes leaching and loss of nutrient content of soil. Changing environmental conditions and shortage of water have led to the need for a system which efficiently manages irrigation of fields. Automated irrigation system is a machine based system, which automates the irrigation of land by combining various software and hardware approaches together for field irrigation.*

Keywords – *Automated Irrigation, Soil, leaching, nutrient*

(E&TC-27) Case Study: Rooftop Solar Power

Mitesh Sapkale[1], Dr. Ishwar S. Jadhav[2], Maheshkumar N. Patil[3], Hemraj V. Dhande[4], Vijay D. Chaudhari[5]

[1]PG student, [2,3,4,5]Assistant Professor
[1,2,3,4,5] E&TC dept, MTech (VLSI & ES),
GF's Godavari College of Engg, Jalgaon - 425003, Maharashtra, India.
miteshsapkale24@gmail.com[1], ishwar.jadhav@rediffmail.com[2], maheshninupatil@gmail.com[3]

Abstract- *Rooftop solar power plants offer a number of advantages, including self-reliance in electricity at a low cost, protection against future price increases for electricity, reduced carbon footprint, and others. The sunlight that generates solar energy is an environmentally friendly and never-ending renewable source of energy. Applications such as residential, commercial, and industrial use this solar energy, which is easily derived from direct sunlight. Therefore, it is highly effective and environment-friendly. The design of low- and medium-voltage collector systems for large solar power plants is facing new difficulties as a result of the development of newer technologies in concentrating solar power (CSP) plants, particularly those that make use of dish Sterling systems, as well as changes in the design of photovoltaic (PV) inverters. Besides, interconnect prerequisites for responsive power, voltage, and incline rate control and the qualities of sun-based power require special answers for ideal plant plan. The development of appropriate models for transient and dynamic simulation of these plants must be included in the design process to guarantee that large solar plants can be successfully connected to the grid without compromising grid stability or reliability. Renewable solar energy is a plentiful source. In India, solar energy is only used sparingly. The production of electricity from sunlight is known as solar power. Using the photovoltaic effect, photovoltaic (PV) converts light into electric current either directly or indirectly through the use of concentrated solar power (CSP). Business concentrated sunlight based power plant were first evolved during the 1980s.*

Keywords – *PV Module, Inverter, Roof top solar, Battery Off grid*

(E&TC-22) Smart Wireless Notice Board using Wi-Fi Controller & Mobile Application

Chaitanya Rane [1], Deep Pardeshi [2], Kundan Thombare [3], Pranjali Sonawane [4], Dr. Ishwar S. Jadhav [5], Vijay D. Chaudhari [6]

[1,2,3,4] UG Student, [5] Asst. Prof., [6] Asst. Prof

[1,2,3,4] E&TC Engg dept, GF's Godavari College of Engineering, Jalgaon

chaitanyarane9@gmail.com[1], isjadhav247@gmail.com[5], vinuda.chaudhari@gmail.com [6]

Abstract- *In this paper, we propose a Smart Wireless Notice Board system that utilizes Wi-Fi controller and a mobile application for efficient dissemination of information in various environments. Traditional notice boards suffer from limitations such as static information, lack of real-time updates, and inconvenience in managing content. The proposed system aims to address these issues by leveraging wireless communication technology and mobile applications to create a dynamic and interactive notice board platform. We discuss the design, implementation, and functionalities of the system, highlighting its potential applications and benefits.*

Keywords – *Mobile Application, Wireless Communication, Real-time Updates, Dynamic Information Dissemination, Remote Management, User Engagement, Interactivity, Push Notifications, Multimedia Content Support, IoT Integration, Cloud Services, Security and Privacy, User Interface Design*

(E&TC-25) Breast Cancer Classification from Histology Images using Dense Residual Capsule Network

Pallavi B. Salunkhe[1], Dr. Pravin S. Patil[2]

[1]Research Scholar, [2]Professor

S.S.V.P.S's.B.S.D College of Engineering Dhule, India, 424005,

pallavisalunkhe055@gmail.com , psp777@gmail.com

Abstract- *Breast cancer stands as a prominent form of cancer predominantly affecting women globally, with a concerning trend of rising incidence in developing nations. The detection and diagnosis of breast cancer can be achieved through non-invasive methods and biopsy. Non-invasive methods primarily include imaging procedures such as diagnostic mammograms, Magnetic Resonance Imaging (MRI) of the breast, breast ultrasound, and thermography. While imaging procedures are commonly used for cancer screening, biopsy remains the most reliable method to confirm the presence of cancer. Histopathological analysis, vital for diagnosing cancer, requires specialized expertise and is time-consuming. It heavily relies on the experience of pathologists and can be affected by factors like fatigue and decreased attention. Recent advancements in image processing have significantly improved the accuracy of diagnosis. an image can be analysed for classification of Malignant and normal cells in a different datasets of breast cancer. Several machine learning/deep learning based approaches are being applied for analysis of microscopic images. Early identification holds significant importance in detection and treating breast cancer, ultimately reducing mortality rates. Hence, this study presents an automated technique for detecting breast cancer through the application of deep learning on histopathological images. Proposed method employs breast histology images, which were categorized into different classes using the Attention Residual Dense Capsule Network. This innovative approach was developed and evaluated using the Python platform and the BreakHis dataset. Performance assessment was conducted using various metrics including f-measure, recall, specificity, precision, and accuracy to gauge the efficacy of the proposed methodology.*

Keywords – *Histopathological image, Breast Cancer, Dense Residual network, Capsule Network*

(E&TC-14) Application of AI ChatGPT with Arduino and Micropython

Priti Subramanium[1], Gajanan Uttam Patil[2], Anilkumar Dulichand Vishwakarma[3], R. D.Raut[4]

[1,2] Assistant Professor, Dr., [3]Associate Professor, Dr., [4]Associate Professor & Dean (SA),Dr.
[1,2] HSM'S, SSGBCOE&T, Bhusawal, India, 425203,
[3]GF'S, GCOE, Jalgaon India, 425203, [4]Government College of Engineering, Nagpur India,
pritikanna559@gmail.com, gajanan.bsl@gmail.com,
anil18vishwakarma@gmail.com, rdraut@gcoen.ac.in

Abstract–*ChatGPT is an artificial intelligence chatbot that functions unlike any other chatbot you have ever used. It was educated using a sizable language model that taught it nearly everything in every language and subject. At least, ChatGPT's dataset isn't connected to the Internet. The existing public beta contains little knowledge of events that occurred after 2021 because it was trained with data that was finished at the start of 2022. The ChatGPT interface is rather basic, with just a text field to enter commands or questions. The outcome will be shown at the head of the website. OpenAI, an artificial intelligence research lab made up of the non-profit OpenAI Inc. and its for-profit OpenAI LP, is the organization that created ChatGPT.*

Keywords- *Artificial Intelligence, ChatGPT, Arduino, IDE, LLM, LED.*

(E&TC-18) Challenges in Various Computer Aided Techniques for Prediction of Heart Disease

Mr.Prashant M Goad[1], Dr.Pramod J Deore[2]

[1] Research Scholar, [2] Professor Dr.
[1,2] R.C.P.I.T.SHIRPUR INDIA 425405
prashantgoad@gmail.com , pjdeore@yahoo.com

Abstract- *In today's fast-paced world, health has taken center stage. Today's world is affected by an increasing number of new ailments. We will discuss a disease that is responsible for 33 % of global mortality in this study. Yes, we're talking about cardiovascular disease. Cardiovascular disease (CVD) is a condition that affects the heart and circulatory system. Which has a varied impact on each age group. Today, the health department can detect such a disease, but patients must spend a lot of money for it, which is expensive in low- and middle-income countries like India. As a result, it's critical to employ a technique that can predict CVD based on available data. This review discusses several strategies for analyzing CVD employing automated computer aided learning techniques like as Machine Learning (ML) without using an invasive base method that are currently accessible.*

Keywords— *Machine learning, feature selection, cardiovascular disease (CVD), prediction model*

provide a robust measurement of model performance.
Results reveal distinct performance characteristics, with EfficientNet excelling in accuracy and YOLOv5 small showcasing efficiency in object detection. The comparative analysis underscores the strengths and limitations of each model, offering valuable guidance for clinicians and researchers seeking suitable algorithms for colon cancer diagnosis. In conclusion, this study contributes to advancing deep learning in medical image analysis, refining models, and enhancing the precision and efficiency of early colon cancer detection systems.

Keywords- *Deep learning, colon cancer, efficient Net Yolo, mobileNet, ResNet*

(E&TC-11) Image Fusion Techniques based on Discrete Cosine Transform using energy coefficients and contrast measure

Ramkrishna P. Patil

Assistant Professor
Electronics Engg. Department, SSVPS B S Deore College Of Engineering, Dhule, India 424005
ramkrishna700@gmail.com

Abstract: - *Discrete cosine transform (DCT) is used for the fusion of two different images and image compression. Two multi-focus images are utilized for image fusion. Different fusion algorithms are used and their performance is evaluated [2,3]. Fusion performance is not satisfactory when utilizing algorithms with a block size of less than 64x64 and also a block size of 512x512. Contrast, amplitude, and energy-based image fusion algorithms accomplished well. The fused images are similar with the reference image. Only the image size is taken into consideration but blurring percentage is not considered.*

Keywords: *DCT, contrast measure, energy measure*

(E&TC-13) Drainage Blockage Wireless Sensor System

Kiran Pandurang Yevale[1], Prasann Narendra Shirname[2], Krunali Manohar Jangale[3], Prof. Mahesh. N. Patil[4]

[123]UG student E&TC Engg. [4]Asstt. Professor,
[1,2,3,4]E&TC Engg dept, GF's Godavari College of Engineering,
Jalgaon, India, 425003,
yeolekiranp68@gmail.com[1], Prasannshirname@gmail.com[2],
krunalijangale981@gmail.com[3], mahesh_npatil@rediffmail.com[4]

Abstract*:- Drainage blockage is a common issue in urban and rural areas, leading to various problems such as flooding, infrastructure damage, and environmental pollution. Conventional drainage monitoring techniques frequently depend on fixed sensors or manual examination, both of which are expensive, time-consuming, and prone to coverage and accuracy issues. This study presents the idea of a Drainage Blockage Wireless Sensor System (DBWSS), which uses wireless sensor technology to provide real-time drainage blockage detection and monitoring in response to these difficulties. The objectives of the DBWSS are to improve the effectiveness of drainage management, lower maintenance costs, and lessen the negative effects of drainage blockages on the environment and infrastructure.*

Keywords*: Drainage Blockage, Wireless Sensor System, Real-time Monitoring, Data Analytics, Smart Infrastructure.*

(ME-20) Static Analysis of Tungsten Carbide Chaff Cutter Blade by Finite Element Method

Dr. Hemant R.Nehete[1], Dr.Nilesh Diwakar[2]

[1]*Assistant Professor, Department of Mechanical engineering, Godavari college of engineering, Jalgaon,Maharashtra, hrn.gcoe@gmail.com*
[2]*Professor, Department of Mechanical engineering, RKDF Institute of science & Technology, Bhopal,M.P*

Abstract – *A waste shaper is utilized to cut the debris ,sugarcane likewise stem so there will be better creature processing. Because of this the refuse is cut into tiny pieces. This debris and roughage assumes a vital part in horticulture creation. In this paper we need to further develop the edge life by utilizing various materials, different slope points and different sharp edge thickness and cutting edge thickness. In this paper we utilized tungsten carbide cutting edges. In this paper our primary point is to build the efficiency. We can do pressure examination by ANSYS programming and furthermore by UTM.*

Keywords- *thickness, material, edge, carbide*

(ME-17) Application of 3D Printing and 3D Scanner Technology for Medical Science

Dama Yogiraj B.[1], Bhagwan F. Jogi [2] , Raju S. Pawade [3]

[1]Research Scholar, [2,3] Professor, Department of Mechanical Engineering,
Dr. Babasaheb Ambedkar Technological University, Loner-Raigad Maharashtra
E-mail: yogirajdama@dbatu.ac.in, bfjogi@dbatu.ac.in, rspawade@dbatu.ac.in

Abstract – *The technology developed and described here makes use of 3D scanners, 3D printers, and a 3D viewer application in systematic way to turn existing resources and medical science data into digital format and to build physical prototypes for medical science related experimentation. The 3D viewer application assisted in simulating the specifics of experimentation using digital data that would otherwise be performed on live animals which not permitted legally. The experimental digital data and prototype models developed through these cutting-edge technologies will remains available for replication and reuse indefinitely for research and future experimentation. It helps global researcher to collaborate and work together with online mode. It will enhance overall eco system to collaborate and develop best solutions in medical science domain. In conclusion, proposed method using application of 3D printers, 3D scanners and 3D viewer technique along with cutting edge technology enhances the precision and reliability of medical experimentations, additionally helps for maintaining digital data for long-term use.*

Keywords- *3D Printing, 3D Scanner, 3D Viewer, Medical Science , Prototype.*

(ME-18) Design and Implementation of a Solar Collector Tracking System: A Review

Kazi Noaman Tarique[1], Thakur Mayur Prakashsingh[2], Yeole Sunil Vasudeo[3]

[1]PG student GF's Godavari College of Engineering, Jalgaon, India,425003, kazinoaman@gmail.com
[2]Asstt Professor GF's Godavari College of Engineering, Jalgaon, India,425003, mayurthakur941@gmail.com
[3]Asstt Professor R C Patel Institute of Technology, Shirpur, India, 425405, Sunilvyeole123@gmail.com

Abstract – *This paper presents the Constructing and Setting into Use a Solar Collector Tracking System aimed to improving the usage of energy. The most effective technique to gather the most solar energy is to use solar tracking devices to track the sun's daily movements and optimize the amount of beam radiation that is gathered. Through dynamic orientation facilitated by sensors, actuators, and control algorithms, the system optimizes sunlight incident angles, thereby enhancing energy conversion rates. Our design process, considering factors like cost-effectiveness and reliability, integrates robust control strategies to ensure smooth and accurate tracking performance under diverse environmental conditions. Experimental testing revealed significant improvements in energy yield compared to fixed-position collectors. Specifically, proposed system demonstrated an average increase in efficiency of 23% over fixed-position collectors. When assessing the use of thermal and electrical energy, the right tilt (inclination) of the solar collector with attention to the user is an important consideration. Using tracking systems, the tilt may be adjusted to its ideal degree. These findings underscore the system's efficacy in enhancing solar energy harvesting capabilities. From authoritative sources corroborate the need for efficient solar collector tracking systems for boosting potential energy production. This study advances solar energy technology and provides useful solutions for both business as well as residential usage.*

Keywords- *Solar, Equator, Tracker etc.*

(ME-9) Power Generation by Double Cylinder Engine

Shaikh Mohammad Danish Atikurrah[1] Junaid Akram Gavali[2], Md Tuseef Md Tauheeb Farooqui[3], Shaikh Mohammad Kashif Md naeem[4], Dr. Hemant R. Nehete[5]

1,2,3,4UG- student, Department of Mechanical engineering, Godavari college of engineering, Jalgaon,Maharashtra
5Assistant Professor, Department of Mechanical engineering, Godavari college of engineering, Jalgaon, Maharashtra hrn.gcoe@gmail.com[5]

Abstract – *The need and progressions of power is notable, the issue with the power now accessible in the market is that they are costly, this are troublesome center for class masses to manage, which from the most level of the nation's populace. The best arrangement is to make an innovation that can change over the generally utilized twofold chamber motor into power. The twofold chamber motor is a recently found green innovation that spotlights on running the motor utilizing magnet. it portrays a motor that deals with head of shock of two unique kinds of magnet, i.e., a super durable magnet and electro magnet.*

Keywords- *magnet, energy, engine, piston*

(ME-12) Securing Safety: A Comprehensive Review of Helmet Locking and Handling Systems

Harshraj K Wani[1], Rishabh R Sharnagat [2], Ayush N Chaudhari [3], Ganesh K Badgujar [4]

[1]UG student, BTech, Mechanical Engineering Department Government College of Engineering Jalgaon, Maharashtra, India, 425002, waniharsh25@gmail.com
[2]UG student, BTech, Mechanical Engineering Department Government College of Engineering Jalgaon, Maharashtra, India, 425002, rishabhsharnagat@gmail.com
[3]UG student, BTech, Mechanical Engineering Department Government College of Engineering Jalgaon, Maharashtra, India, 425002, ayush.c2911@gmail.com
[4]Research Scholar, MTech Mechanical Engineering. Khandesh Engineering Services, Jalgaon, India, 425001, ganesh.badgujar03@gmail.com

Abstract – *This research paper presents a thorough examination of various helmet locking and handling systems with the objective of identifying the optimal solution for ensuring rider safety and convenience. Helmets are crucial components of motorcycle safety, and the effectiveness of their storage and handling systems directly impacts their functionality. The study explores a spectrum of existing mechanisms, encompassing traditional lock-and-key systems, innovative combination locks, proximity sensors, and emerging technologies. Through an in-depth analysis of factors such as security, ease of use, and durability, the paper aims to pinpoint the most efficient and user-friendly helmet locking and handling system. The findings of this research provide valuable insights for both manufacturers and consumers, contributing to the ongoing efforts to enhance motorcycle safety measures.*

Keywords- *Helmet, Driver safety, Helmet Locking, Leg guard, head gear.*

(ME-1) A Review on Utilization of Solar Energy in Solar Water Heaters Integrated with Phase Change Materials

Pankaj Shiwaji Palve [1], Prof.Tushar A. Koli [2], Dr Vijaykumar H. Patil [3], Prof.Kishor Mahajan [4], Prof. Mayur Thakur [5]

Department of Mechanical Engineering GF's Godavari College of Engineering, Jalgaon
Email ids: Pankajpalve105@gmail.com , mayurthakur941@gmail.com

Abstract – *The uncontrolled use of non-renewable energy resources is of major concern in the world as once they are depleted it cannot be replenished also the problem with use of non-renewable energy is by product generated from non-renewable energy production contribute to environmental damage and an increase in greenhouse gas emissions . so nowadays researchers focus is on utilization of renewable energy sources like solar ,wind, tidal energy etc. one of the most abundantly available energy resource among all the natural resource is solar energy. Solar energy plays vital role in domestic and industrial applications as it is freely and easily available source of energy. Solar water heating is one of the common applications of using solar energy around the world for both industrial and domestic purpose. But the core problem with solar water heaters is supply of hot water is possible only in day time from the storage tank. But PCM installed solar water heaters is solution to above stated problem. Phase change materials are used for storing the heat energy in the heaters to get efficient system PCM used in this systems are used as thermal energy storage(TES).the objective of this paper is to review the utilization of PCM in solar heating process for both industrial and domestic applications.*

Keywords- *Renewable energy, phase change materials (PCM), thermal energy storage (TES).*

(ME-4) Overview of Smart Materials Used for Vibration Control

Dr. Jitendra R. Chaudhari[1], Prof. Avinash V. Patil[2], Prof. Girish P. Bhole[3] Dr. Shrikant U. Chaudhari[4]

1Asst. Professor,SSGB COE & T, Bhusawal 425201, jitendra.rc1@gmail.com
2Asso. Professor.SSGB COE & T, Bhusawal 425201, aviyash111@gmail.com
3Asst. Professor, SSGB COE & T, Bhusawal 425201, girishin21@gmail.com
4Asst. Professor, SSGB COE & T, Bhusawal 425201, shrikant8913@gmail.com

Abstract – *Smart Structures are structures that are able to sense, process and actuate in response to environmental conditions. These conditions can include stress, pressure, temperature, electric fields, incident photons and more. Smart Structures have been used in many fields of engineering, from aerospace and automotive to civil and marine to electronics, robotics and more. The field of Smart Structures is advancing rapidly, with a wide range of supporting and enabling technologies, especially in optics and electronics, being developed. Piezo-electric actuators, fiber optic sensors and other techniques, such as shape memory alloys, magneto-restrictive materials and electro-rheological fluids, are just a few of the technologies that are being developed. Other aspects of Smart Structures that are being considered include structural integrity and fusion of sensors and data interpretation.*

Smart Structures is a rapidly advancing field with the range of support and enabling technologies having made significant advances, notably optics and electronics. Whilst piezoelectric actuators and fiber optic sensors have been accorded the most attention, other techniques such as Shape Memory Alloys, Magneto Restrictive Materials and Electro-Rheological Fluids also have niche applications. Furthermore, aspects such as structural integrity, sensor fusion and data interpretation are being considered.

Keywords- *Smart Structures, Smart Materials, Piezoelectric, Shape Memory Alloy*