SOUVENIR

National Conference
on
Emerging Trends in Engineering, Science & Technology
(ETEST- 2024)

17th May, 2024

Under
Internal Quality Assurane Cell
In association with
The Institution of Engineers (India)
Nagpur Local Center

- Organized by -

Gondia Education Society's

MANOHARBHAI PATEL INSTITUTE OF ENGINEERING & TECHNOLOGY

BHANDARA (M.S.)

NAAC Accredited

Souvenir
of

National Conference on Emerging Trends in Engineering, Science & Technology

Jointly organized by Manoharbhai Patel Institute of Engineering & Technology, Bhandara and Institution of Engineers, Nagpur

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SOURCE OF INSPIRATION

Late Shri Manoharbhai Patel

Philanthropist & Founder
Gondia Education Society, Gondia.

MESSAGE.....

It is a matter of great pride for me to know that a national level conference on the 'Emerging Trends in Engineering, Science & Technology' is being organized at Manoharbhai Patel Institute of Engineering & Technology, Bhandara on 17 th May, 2024 by Internal Quality Assurance Cell in association with the Institute of Engineers, Nagpur. Indeed, there is a growing need to organize such kind of conference to provide the platform for the people who step in research. This act will send a positive and energetic signal to all who involve in this activity. It would be definitely beneficial to the researchers to knowhow their technical and scientific craftsmanship. I'm confident that the presentations during the conference will be good boost for the scientist and scholars working in the field of research.

I congratulate the organizers for organizing this conference and I extend my warm wishes for the wonderful conduction of the conference.

Hon. Praful Patel
Former Minister, Govt. of India & M. P. Rajyasabha

I am proud to see that MIET Bhandara has organized such national conference for the students and scholars of engineering, technology, and science. The main object of the conference is to update and upgrade the knowledge of all concerning areas. Such endeavours must provide an insight to exchange the ideas of minds. It caters lot of opportunities in the field research which will be used for the betterment of humankind.

I'm sure that all the participants in the conference will get some advantage definitely while enjoying all the technical and key-note sessions.

On this occasion, I wish all the best to all who toiled hard for the huge success of the conference.

Hon. Smt. Varsha P. Patel
President, Gondia Education Society, Gondia

MESSAGE.....

I am happy to know that the IQAC, MIET Bhandara and IOE, Nagpur is jointly organizing a National Conference on 'Emerging Trends in Engineering, Science & Technology' (ETEST-2024). Definitely, this conference will focus on various aspects of research in engineering and science. The presented papers seem to be the remedy to solve many issues of industry and technology. This conference will provide an interactive forum to the experts of academics and industry also. It may be helpful to face the challenges which occurred in day to day life of people. The eminent scholars will deliberate on various co-related areas in the conference.

I wish you good luck for the success of this conference.

Hon. Rajendra H. Jain
Secretary, Gondia Education Society, Gondia

It gives me immense pleasure to learn that Internal Quality Assurance Cell (IQAC) of Manoharbhai Patel Institute of Engineering & Technology, Bhandara is organizing a National Conference on 'Emerging Trends in Engineering, Science & Technology' (ETEST-2024) on 17th May, 2024 by in collaboration with the Institute of Engineers, Nagpur.

It is nothing but a team work with dedication, determination and discipline that leads to success of the institute to organize this conference. The novel ideas of the creative minds will be shared in this platform and the untouched issues of the various fields would be discussed. It is enlightened to have the masters of the respective areas of the research who interact with all the participants and make acquaint with their knowledge. I am sure that the discussions during the conference will enhance the knowledge of the participants and will go a long way in creating skilled manpower.

Eventually, I wish to congratulate the organizing committee and participants of this conference who have made their efforts for success.

Hon. Nikhil R. Jain
Director, Gondia Education Society, Gondia

MESSAGE.....

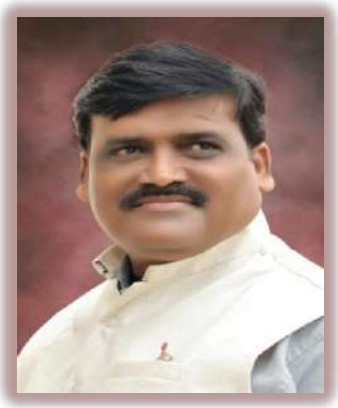
It's a matter of great pleasure to me to extend my best wishes to the organizers and participants for organizing this national level conference at MIET Bhandara in association with **Institution of Engineers** Nagpur, Local Center on **17thMay 2024**. I am sure that this conference will help the delegates to acquire the current information and innovative ideas.

Er. Satish Raipure
Chairman
Institute of Engineers, Nagpur Local Center

I am glad to know that Manoharbhai Patel Institute of Engineering & Technology, Bhandara is going to organize a National Conference on '**Emerging Trends in Engineering, Science & Technology** in association with **Institution of Engineers** Nagpur, Local Center on **17thMay 2024**. It's a matter of great pride that the institute has organized such conference in bringing together the engineers and professionals to discuss the burning issues in science and engineering. Definitely, this conference will help to adopt the knowledge at gross root level by students and industry.

I extend my best wishes for the success of the conference.

Dr. J. F. Agrawal
LCM Member
Institute of Engineers, Nagpur Local Center



I'm glad to know about the National Conference on Emerging Trends in Engineering, Science & Technology jointly organized by Manoharbhai Patel Institute of Engineering & Technology, Bhandara and Institution of Engineers, Nagpur on dated 17th May, 2024. Really this conference will be helpful to all the delegates of Industry and educational organizations in view of new vista in research and development. I'm happy to convey my warm regards and kind wishes for the success of this conference.

Dr. Sanjay Dhoble
Professor, Department of Physics, RTMNU, Nagpur

MESSAGE.....

I am delighted and honoured to convey my warm regards for this national conference on **Emerging Trends in Engineering, Science & Technology'** to be held on **17thMay 2024** that is a joint venture of IQAC of MIET Bhandara and The Institution of Engineers Nagpur. I take this opportunity to welcome all the invited academicians, delegates, research scholars, participants and students. I'm pleased to share that we always try to promote the students to peep in research areas to increase their knowledge. It has been our sincere attempt to support research and development.

This national level conference is aimed to build and strengthen the linkage among engineering, science and technology. This is a common platform for professional researchers, budding scientists and academicians to discuss and interact in the core areas of engineering and science to co-up with industries. I am sure that it will be definitely helpful to faculty and students to interact with the experts during the conference. I hope, this conference will be meaningful and relevant to solve the current issues.

I wish, this conference will have a great success and all would be greatly benefitted with the deliberations.

Dr. Pralhad R. Harde
Principal, MIET Bhandara

It is a memorable day for us that we are going to organize a National Conference on '**Emerging Trends in Engineering, Science & Technology** in association with **'The Institution of Engineers**, Nagpur on **17thMay 2024**.

The objective of this conference is to provide a platform for researchers & academicians to discuss in core areas & interact with experts in various fields. As technology is changing in very fast rate in every area of science & engineering and we find a new technology comes in market every day. So this conference will provide us to exchange & share such ideas.

We have arranged various key note sessions, paper presentation and sessions for all the participants which are very much informative. I would like to pay my sincere thanks to the management for the supports and all the resource persons to share their views. Also I'm thankful to the organizing committee & supporting staff who worked tireless to make this conference successful.

I wish a grand success for this conference.

Prof. Ajay Motiwal
Convener

CHIEF PATRON

Hon'ble Shri Praful Patel

Former Minister, Govt. of India & M.P. (Rajya Sabha)

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Hon'ble Shri Nikhil Rajendra Jain

(Director, Gondia Education Society, Gondia)

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INSTITUTE: AT A GLANCE

Manoharbhai Patel Institute of Engineering & Technology (MIET), run by Gondia Education Society, Gondia was established in 2010. Late Mr. Manoharbhai Patel, the founder of this society, devoted his whole life to provide education and technical knowledge to the young generation of Gondia and Bhandara districts. It is a dream project of his son, Hon'ble Prafulbhai Patel. This institute is located about 8 kms from Bhandara and about 52 kms from Nagpur on National Highway no. 06. Spread over an area of 60 acres of land, it boasts of state-of-art-Computer Center, well equipped Laboratories, well-stocked Library, with spacious Reading Room, model classrooms, workshop, Training and Placement cell, medical facilities, Seminar Hall, student friendly ambiences etc. MIET Bhandara is NAAC accredited and affiliated to Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur. This institute has three departments and about five hundred students enrolled for the courses. Efforts are made to meet the expectations of every engineering student and enable them to participate in seminars and workshops organized in and outside the institute.

AIMS & OBJECTIVES OF CONFERENCE

1) The National Conference-2024 is a providing a platform for presentation on Emerging Trends in Engineering, Science and Technology.
2) This is a common platform for professional researcher & academicians to discuss & interact in the core areas of engineering & science to establish the industrial network.
3) It will help to faculty and students to interact with experts during the conference.
4) It will also help in developing curriculum and internship for the students.

Gondia Education Society's

Manoharbhai Patel Institute of Engineering and Technology
Shahapur, Bhandara

Organizes

National Conference

on

Emerging Trends in Engineering, Science and Technology

(ETEST-24)

Programme Schedule

Friday, 17th May 2024

Time	Activity
10:00 A.M. - 10:30 A.M.	Delegates' Registration
11:00 A.M. - 12:45 P.M.	Inaugural Session
	Chief Guest : **Er. Satish Raipure**
	Guest of Honour : **Dr. J. F. Agrawal**
	Keynote Speaker : **Dr. Sanjay Dhoble**
1:00 P.M. - 2:00 P.M.	Lunch
2:00 P.M. - 3:30 P.M.	Technical Sessions
	Computer Engineering : Seminar Hall
	Civil Engineering : Room No.1
	Mechanical Engineering : Room No.2
	Science : Room No.2
3:30 P.M. - 4:00 P.M.	Keynote Speaker : **Dr. Shyam Dafare**
4:00 P.M. - 4:30 P.M.	Valedictory Function
4:30 P.M. - 5:00 P.M.	High Tea

CONTENTS OF PAPER

Efficacy of Admixtures on Compressive Strength of Concrete

Lokesh B. Khandekar[1], Simran P. Kotangale[2], Vedshri S. Meshram[3], Akash Y. Nagpure[4], Tejas P. Shendre[5], Komal D. Dahagaonkar[6], Prof. Sanjay Marjive[7]

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ABSTRACT

This paper investigates the impact of reducing cement proportion in concrete by adding varying percentage of silica fume and glass fibre. The aim is to evaluate the compressive strength of modified concrete mix with varying percentage. The experiment involved varying levels of cement replacement with silica fume and the addition of glass fibre to determine the optimal combination for enhancing concrete performance. Testing methodologies included compressive strength tests of concrete cube. The results provide insights into the feasibility and effectiveness of utilizing silica fume and glass fibre to improve the strength characteristics of concrete while reducing cement content, contributing to sustainable and durable construction practices.

Keywords: M20 grade concrete, silica fume, glass fibre, cement reduction, compressive strength.

Enhancing the Strength of Concrete by Using Human Hairs as a Fiber

Ashish Chikhlondhe[1], Amit Shahare[2] , Piyush Rangari[3], Hashina Nandeshwar[4], Sejal Deshmukh[5], Samir Bhujade[6], Varsha Lanjewar[7],

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ABSTRACT

One of those innovations that provides an easy, useful, and affordable way to get over micro cracks and other related flaws is fibre concrete. Human hair is a non-biodegradable substance that is inexpensive, readily available, and plentiful. Because of its breakdown, it also poses environmental risks. The performance of concrete is improved, its cost is decreased, and disposal issues are resolved and it is the most importance human hairs fibre.

Keywords: Human hairs, fibre.

Power generation from footsteps at a Bus Stop Using Piezoelectric sensors

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ABSTRACT

Day by day, the demand for electricity is on the rise, emphasizing the need for alternative methods to generate power to preserve natural resources. We propose an innovative power generation system utilizing footstep energy. This system comprises piezoelectric sensors, an Arduino UNO, LCD Display, PIC microcontroller, voltage boosters, a battery, LDR, and a mobile charging socket. When pressure is applied to the piezoelectric sensors by footsteps, they produce voltage, which is then converted into electrical power. These sensors are strategically placed to maximize voltage output, which is then fed into our monitoring circuit. Through this setup, we can generate a maximum of 22 volts per step and a minimum of 1 volt per step. Observations at bus stations show that approximately 57 volts of power can be generated by piezoelectric sensors in 24 hours

Keywords: LCD Display, PIC microcontroller, , voltage boosters.

Effect of Soft Story on the Seismic Performance of RC Building

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ABSTRACT

Seismic analysis and design of RC buildings are crucial for ensuring safety, minimizing damage, and maintaining functionality during earthquakes. It reduces economic losses, ensures legal compliance, fosters public confidence, and drives advancements in engineering practices. In earthquake analysis, a "soft story" refers to a building configuration where one or more stories have significantly less lateral stiffness or strength compared to the stories above or below. This design flaw can lead to disproportionate structural damage or collapse during seismic events. Soft story buildings are particularly vulnerable to lateral forces generated by earthquakes because the weaker story(s) may fail, leading to structural instability and potential collapse .Addressing soft story vulnerabilities through retrofitting and advanced structural design is essential for enhancing seismic resilience and mitigating the potential impact of future seismic events. Furthermore, incorporating advanced structural analysis and design techniques can help engineers identify and address soft story vulnerabilities during the initial stages of building construction or renovation. This proactive approach allows for the implementation of appropriate measures to enhance seismic resilience and ensure the safety of occupants and surrounding communities. Therefore, identifying soft story buildings is essential for reducing seismic risk and ensuring the safety of occupants and property. In the present study, the effect of soft story on the performance of building is studied in detail. The presence of soft story is shown to have considerable effect on the modal frequencies and the story drift of the structure. In the present study, the effect of different seismic zones is also discussed in detail .soft stories pose a significant risk to the seismic performance of RC buildings, increasing the likelihood of structural damage and collapse during earthquakes.

Keywords: *Seismic Analysis, RC Building, Equivalent Static Analysis, Soft Story.*

Study of Vertical Irregularity on the Seismic Response of RC Building

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ABSTRACT

Earthquake is one of the most devastating natural hazards that causes great loss of life and livelihood. Thus, it is of utmost importance to perform the seismic analysis of the structures so as to ensure safety against earthquake. A structure analysed by taking into consideration the forces induced due to ground motion instigated by earthquake can reduce the losses to life as well as economy to a greater extent. In general, the performance of the building is greatly affected due to the irregularity the structure. The present study discussed the effect of vertical geometric irregularity on the seismic response of structure. The objective of the present study is to carry response spectrum analysis (RSA) and equivalent static analysis (ESA) of vertically geometric irregular RC frame building. This paper discusses in brief, the use of static as well as dynamic seismic analysis procedures and their applications using analytical techniques in conjunction with the computer software (Etabs v20.2.4).Comparison of the results of analysis of regular and irregular structure is presented in this paper. The scope of present study also includes the evaluation of response of structures subjected to different seismic zones having low to very sever seismic intensity. A direct relation between the earthquake zone and the lateral displacement of the structure is verified. This study contributes to the body of knowledge in structural engineering by providing valuable insights into the presence, characteristics and consequences of vertical irregularity of simple structure.

Keywords: Seismic Analysis, ESA, RSA, Vertical Irregularity, Structure analysis through Etabs

Global AI Applications in Traditional Civil Engineering Practices

Prof. Sanjay Marjive[1] (marjive.sanjay1@gmail.com)
Dr. Shahid Akhtar Sheikh[2] (shahid_bhandara@rediffmail.com)
[12]Assistant Professor, MIET Bhandara

ABSTRACT

Artificial intelligence is a field of computer science that studies, designs, and applies intelligent computers. Traditional approaches for modeling and optimizing complex structural systems take enormous computational resources, and artificial intelligence-based solutions can frequently provide valuable options for efficiently tackling civil engineering problems. This paper summarizes recently developed methods and theories in the developing direction for applications of artificial intelligence in civil engineering, including evolutionary computation, neural networks, fuzzy systems, expert systems, reasoning, classification, and learning, as well as chaos theory, cuckoo search, firefly algorithm, knowledge-based engineering, and simulated annealing. The important research trends are also mentioned at the end. The paper presents an overview of achievements in artificial intelligence applied to civil engineering.

Keywords: Artificial Intelligence, Global Network, fuzzy systems, chaos theory

Bio Cementation: Novel method for Environment-Friendly and Sustainable construction

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Prof. Sanjay Marjive[2] (marjive.sanjay1@gmail.com)

[12]Assistant Professor, MIET Bhandara

ABSTRACT

The practice of soil treatment and improvement is a widely employed technique within the domain of geotechnical engineering. The use of cement as a soil treatment material is widespread due to its effectiveness; however, it is also associated with significant greenhouse gas emissions. Consequently, researchers are actively investigating alternative options such as geosynthetics, chemical polymers, geopolymers, microbial induction, and biopolymers. This study presents a comprehensive examination of the contemporary utilisation of biopolymers in the field of geotechnical engineering. Microorganism-induced biopolymers possess properties such as high tensile strength, non-toxicity, and environmental friendliness. The main topic of this discussion is the study of how soil and biopolymers interact and the mechanisms that help strengthen soil, which have been developed through recent experiments and microscopic studies. Furthermore, this study examines the economic viability of incorporating biopolymers in the construction industry, specifically in relation to conventional cement, with a focus on environmental considerations. The study's findings indicate that biopolymers exhibit significant promise as a viable substitute for cement in soil treatment applications, particularly in the realm of environmentally sustainable construction and development.

New Trends in Structural Engineering: Current Research Review

Prof. Varsha Lanjewar[1] (varshalanjewar1984@gmail.com)
Prof. Swati Kolhatkar[2]
[12]Assistant Professor, MIET Bhandara

ABSTRACT

With an emphasis on sustainability, resilience, and the assessment of the structural elements' performance, this thorough review delves into the most current developments in structural engineering. The incorporation of sustainability principles into structural engineering has become essential in the modern construction scenario, where resource constraints and environmental considerations greatly impact design processes. The introduction highlights the complexity of structural engineering and the essential components that lead to resilient and sustainable solutions. It is essential to analyse the design elements, taking into account energy efficiency, occupant comfort, low environmental effect, and strength requirements. In order to generate ecologically friendly designs, modern structural engineers use a wide variety of tools and methodologies, addressing the challenges presented by changing demands and resource restrictions. Through experimental studies on novel materials, the strength requirements of structural members—such as ultimate capacity, energy absorption, axial stiffness, and durability—are investigated. Studies have compared the effectiveness of alkali-activated concrete with conventional mortar against sulfuric acid attack, the use of coconut coir fibre in limestone-calcined clay cement concrete, and the combination of metakaolin and ground granulated blast-furnace slag in concrete for marine environments. A wide range of subjects are covered by analysis and design aspects, such as the seismic analysis of reinforced concrete frames and the use of finite element modelling to assess the behaviour of hybrid composite laminates. The volume places a strong emphasis on the value of foundation isolation systems, progressive collapse analysis, and masonry wall safety evaluation.

Impact of Machine Learning Techniques in Manufacturing Sector towards industry 4.0

Shailesh P. Nagapure

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ABSTRACT

The industry 4.0 is changing traditional manufacturing into smart manufacturing where machines learn to understand individual processes, interact with environment, and intelligently adapt their actions. The industry 4.0 model promotes the usage of smart sensors, devices, and machines, to facilitate smart factories to continuously collect data concerning to production. The Machine Learning (ML) has shown great potential to transform the manufacturing sector to SMART by using advanced analytics tools for processing the vast amounts of manufacturing data generated, known as Big Data. ML techniques enable the generation of actionable intelligence by processing complex manufacturing data and offers an intelligent decision support system to manufacturing tasks such as continuous inspection, predictive maintenance, quality improvement, process optimisation, supply chain management, and task scheduling. Here, this paper contributes to presenting an overview of available machine learning techniques its potential impact and successful applications in a manufacturing sector.

Keywords: industry 4.0, machine learning, computer-integrated manufacturing, intelligent manufacturing systems, smart manufacturing, manufacturing analytics

Development of Smart Car to Avoid Road Accident

Miss. Akanksha Nandeshwar[1], Miss. Khushboo Sakharawade[2], Miss.VrutikshaBansod[3],Mr. Aryan Bhendarkar[4], Mr. PrajwalKamble[5], Shailesh Nagapure[6]

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ABSTRACT

Robotics is a rapidly expanding and Fascinating field in the modern world. Because of its high Level of intelligence, a smart car can utilize all of the Available space. This thesis presents the design and Execution of a selfdriving, obstacle-avoiding Smart Car That uses an ultrasonic wave sensor. The goal of the project Is to create a Smart Car that can move around obstacles by Employing ultrasonic sensors. To carry out the needed Procedure, 1an ATmega328 microcontroller is employed. A machine that can work automatically or with instruction Is referred to as a smart car. The proposal suggests a smart Car that can selfsteer when an impediment is in its way Since it has intelligence built into it. A microcontroller from The AT mega 328 series was used to construct this Smart Car vehicle. Any obstruction in front of it is detected by an Ultrasonic sensor, which then sends an instruction to the Microcontroller. The microcontroller instructs the Intelligent Car to travel in a different direction based on the Signal that it receives by activating the motors that are Connected to it by a motor driver. The roadblock avoidance Distance may be calculated by emitting pulses. We can Simultaneously manage the steering to carry out the Function of obstacle avoidance. The Smart Car has rear Wheel drive and front axle steering. Two electric motors Using gear reduction systems power two driving tires. Using an Arduino MCU microchip as the brains of the Smart Car's control system. We construct our Smart Car Platform while achieving positive experimental results Through the design for both the software and the hardware Systems.

Keywords: - Oxygen therapy, Smart car, accidents detection, ultrasonic Sensor, Arduino Controller, Application etc.

Fabrication of Treadmill Bicycle

Mr.Ashutosh S. Patil[1] ,Mr.Ashish Chadave[2], Mr.Shashank Wanjari[3], Mr. Charudutta Kalbande[4], Mr.Santosh Deshmukh[5], Prof. Ajay Motiwal[6]

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ABSTRACT

There is growing interest in hybrid transportation devices that combine elements of different modes of travel, such as walking and cycling. Research in this area often focuses on enhancing mobility and addressing urban transportation challenges.In today's sedentary lifestyle, physical inactivity poses a significant health risk, leading to various chronic diseases. As a response, the fitness industry continuously innovates to provide novel solutions for promoting physical activity. This research paper presents the fabrication process and performance evaluation of a treadmill bicycle, a hybrid exercise equipment merging the benefits of both treadmill walking/running.

The fabrication process involves integrating a traditional treadmill's walking/running platform with a stationary bicycle frame, enabling users to engage in both walking/running and exercises simultaneously or interchangeably. The design incorporates adjustable resistance levels, speed controls, and safety features to ensure a customizable and secure workout experience for users of different fitness levels.

The research evaluates the biomechanical and physiological responses of users while using the treadmill bicycle compared to traditional treadmill walking/running and stationary cycling. Through experiments and user feedback surveys, the effectiveness, usability, and user satisfaction of the treadmill bicycle are assessed, providing insights into its potential benefits for promoting physical activity and traveling shorter distances.

The findings of this research contribute to the advancement of exercise equipment technology and provide valuable insights for fitness enthusiasts, gym owners, and healthcare professionals seeking innovative solutions to combat sedentary behavior and promote active lifestyles. Furthermore, the treadmill bicycle offers a versatile exercise option suitable for individuals with varying fitness goals, preferences, physical abilities and trevelin, ultimately contributing to the enhancement of public health and well-being.

Keywords: Treadmill bicycle, fabrication, performance evaluation, exercise equipment, cardiovascular fitness.

Oxygen Concentrator Using Pressure Swing Adsorption Technology

Mr. Masur Ramteke[1], Mr. Mrunal Bhure[2], Mr. Rohit Shahare[3], Mr. Tejas Yelmule[4], Mr. Umesh Ganvir5, Prof. Dilip Borkar[6]

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ABSTRACT

An Oxygen concentrator is a device designed to provide a constant and cost-effective supply of oxygen. Unlike traditional oxygen cylinders, they draw ambient air and employ advanced processes, such as pressure swing adsorption (PSA) or membrane technology, to extract and deliver highly concentrated oxygen to individuals with chronic respiratory conditions. This technology has revolutionized patient care, allowing many to receive oxygen therapy in the comfort of their homes, thus reducing the burden on healthcare facilities.

The compact and portable nature of oxygen concentrators ensures mobility and independence for patients, enhancing their quality of life. This has been particularly valuable during the COVID-19 pandemic, as concentrators played a vital role in providing oxygen to patients in makeshift healthcare settings and at home, alleviating the stress on overwhelmed healthcare systems.

Keywords: - Oxygen therapy, RPSA technology, Respiratory equipment.

Partially Labelled Data Driven Approach from Identifying DDOS Attack

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ABSTRACT

A distributed denial of service (DDOS) attack is a type of network exploit that stops a server's normal replies and operations. The denial-of-service attack (DDOS) prevents authorized users from accessing online resources and enables us to spot anomalous network traffic patterns. This attack is considered to be one of the largest threats to the internet. In order to address the repercussions of this problem, we are developing a detection model through the use of a variety of machine learning methods. Semi-supervised machine learning (ML) techniques are offered for DDOS detection, whereas unsupervised methods scan incoming network information to detect attacks. (K-Nearest Neighbor, Support Vector Machine, Random Forest, and Co-clustering). The unsupervised approach reduces the regular traffic data that isn't important. This DDOS detection approach has a feature that lowers false positive rates while increasing accuracy. Conversely, the supervised segment accurately detects the DDOS traffic and considerably reduces the false positive rates of the unsupervised component.

Keywords: Machine learning algorithms, K-Nearest, DDoS detection, unsupervised section, semi-supervised section, Random Forest

A Review on Gender and Age Detection System Using CNN on Real-Time Video

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ABSTRACT

Because of its wide range of applications in a variety of facial investigations, automatic age and gender prediction from face photos has recently gained a lot of attention. We can leverage the aforementioned technologies to determine a person's age and gender just on a single glimpse from a camera, image, or video. This research paper will outline a convolutional neural network (CNN) using deep learning, methodologies, and algorithms that can be used, and how everything fits together for gender classification and age detection. Technology will also underline its importance and how it may be used to better our everyday lives. The paper's prime objective of use deep learning to develop a gender and age detector that can roughly predict the gender and age of a human face in an image. Further, the map shows how this technology might be applied to our benefit and looks at the broad array of applications where it could be used: from intelligence agencies, CCTV cameras, and policing to matrimony sites. In these applications, facial photographs are commonly employed since they contain useful information that may be used to extract human interaction. For gender detection and age prediction, Image processing, feature extraction, and classification steps are usually used. These steps may change based on the objective of the study and the characteristics to be used. The face images were processed using a variety of approaches, and calculations were performed based on the results of the investigations. For image processing, there are two basic and typical which we need to follow. Image enhancement is the process of improving an image so that the resultant image is of higher quality and can be used by other applications. The most popular technique for extracting information from an image is the other technique. The image is divided into a specified number of parts or objects to solve the challenge and this procedure is called Segmentation. Due to the accuracy of its classification technique, deep learning techniques are a variety of tasks such as classification, feature extraction, object recognition, and so on, it helps in gender and age prediction. We used this technology on real-time videos on multiple images at one video then show all image detected the gender and age.

Keywords: CNN, deep learning, gender classification, age detection**.**

AI in News Media Platform

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ABSTRACT

This paper is AI news platform is such an online platform where news and article related to artificial intelligence (AI) are published. Major developments related to AI, new tools, scientific research(ethics), commercial applications, and other AI-related updates are available on this platform. AI news platform presents AI relevant news, articles, and opinion pieces so that people can get information about the important and impact of AI. AI experts, researchers, and business people often express.

Artificial Intelligence refers to the simulation of human intelligence in machines, enabling them to perform task that that typically require human intelligence, such as understanding natural language, recognizing patterns, and making decisions. In the news media sector, AI is used to automate and enhance various processes.

Keywords: Artificial intelligence, natural language understanding, machine learning.

Multi Salon Service Application

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ABSTRACT

This research paper analysed the impact of employee engagement and employee performance on the service quality of TMD Hairdressing and Beauty Salon Services in Yangon, Myanmar. This study used organization development interventions (ODIs) to improve employee engagement, employee performance and service quality. The objectives were: to assess and analyse the current situation of the organization; to design and implement the deliberate organization development interventions (ODIs); to measure the initial impact of ODIs; to determine the difference between the values of pre and post ODI; to draw up a three year Road Map for the organization to sustain the change. The level of employee engagement, employee performance and service quality were relatively low at the pre ODI stage. Based on the pre-ODI results, the researcher conducted purposeful organization development interventions on employee engagement and employee performance to improve service quality. The post ODI results showed significant improvement on employee engagement, employee performance and service quality. According to the results of paired sample t-test, there were significant differences between pre and post ODI outcomes related to Employee Engagement, Employee Performance and Service Quality. Based on the regression results, employee engagement and employee performance had significant impacts on the level of service quality. The organization development interventions (ODIs) positively affected the level of employee engagement, employee performance and service quality. Based on the data from the study, the researcher drew up a three year Road Map in terms of three levels: Manager Level, Employee Level and Organization Level. Further organization development interventions to improve employee engagement.

Keywords: TMD Hairdressing, organization development interventions (ODIs), Service Quality, regression results, paper analysed, Road Map, significant impacts.

Online Music Sharing Platform

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ABSTRACT

Music sharing is one of the most important components in interactive entertainment. In recent years, mobile music market has experience a rapid growth. Current mainstream music sharing platforms provide users with a large number of online music, which however suffer some limitations of functionality since they neglect the interactions in the physical world. The combination of online music sharing and offline music sharing creates a new music sharing mode. Music Sharing App is a powerful music sharing software that allows users to log into the system, add albums, and add songs to the playlist. All songs listened to by other users registered on the system can also be found in the album. This music software also has music download capabilities, allowing users to listen to music even when they are not connected to the internet. Any user can register for free, and they can all share their music. With increasing demand of information and data. Information Technology is a field which is developing rapidly. Technology which is in demand today might get redundant in future. The motivation of this project comes from my desire to learn the increasingly growing field of Django server database designing, website designing and their growing popularity by taking up this Project. The word "design" in the context of a Web Application can mean many things. Its most popular usage probably refers to the visual and user interface (UI) design of a website.

The proposed music sharing platform is developed with cloud computing techniques, which relies on sharing of resources and focuses on maximizing the effectiveness of the shared resources. Music sharing on cloud is more convenient and efficient in this case. Experimental results show that this platform can function properly and achieve satisfactory user experience. The purpose of Online Music Portal is to automate the existing manual system by the help of computerized requirements and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work.

Keywords: Online Music Platform (OMP), Copyrights, File Sharing (FS), Peer-to-Peer Networks (PPN), Online Music Portal (OMP), Music Streaming Platforms (MSP**)**

Twitter Sentiment Analysis Using Machine Learning

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ABSTRACT

In this paper to delve into the realm of Twitter sentiment analysis, exploring the diverse methodologies and techniques employed to decipher the sentiments conveyed through tweets. By examining the rich landscape of sentiment analysis on Twitter, we aim to shed light on the advancements, challenges, and potential future directions of this dynamic field. This interest comes from the fact that a great number of tweets are posted on Twitter, which provides vital information on the sentiments of the public on a variety of subjects.

Keywords: Sentiment Analysis, machine learning, natural language processing, supervised learning.

AGRO APP for Farmers: Government Schemes and Crops Information

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ABSTRACT

Imagine a landscape where farmers wield knowledge as their most potent tool. Enter the AGRO App, a groundbreaking mobile platform poised to upend the agricultural landscape. Tailored to the diverse needs of farmers, it serves as a one-stop solution, bridging the gap between information and action.

Real-time market trends empower farmers to make informed decisions, navigating price fluctuations with strategic foresight. Weather forecasts, readily available at their fingertips, guide precise planning, protecting precious crops from nature's unpredictable whims. Modern agricultural techniques, once shrouded in obscurity, are unlocked, unleashing the potential for increased productivity and sustainable practices. The AGRO App transcends data dissemination, fostering seamless communication with government initiatives. Information on subsidies, grants, and training programs flows freely, ensuring vital resources reach those who need them most.

This innovative solution isn't merely a technological marvel; it's a human empowerment engine. The AGRO App equips farming communities with the knowledge and tools to thrive. Food security flourishes as harvest yields rise, nourishing a nation's well-being. The ripple effect extends far beyond individual farms, fuelling the overall growth and development of the agricultural sector.

In essence, the AGRO App paints a vivid picture of a transformed agricultural future, one where knowledge is power and technology is the key to unlocking a brighter horizon. For farmers, it promises autonomy, security, and prosperity. For the industry, it signifies growth, efficiency, and sustainability. The AGRO App is not just an application; it's a beacon of hope, illuminating the path towards a flourishing future for farmers and agriculture alike.

Keywords: Dissemination, government schemes for farmers, fingertips, Agro app

Survey on News Portal

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ABSTRACT

An abstract of a news portal refers to a concise summary or overview of the key information and topics featured on the website. News portals are online platforms that aggregate and provide news articles, updates, and multimedia content from various sources. The abstract typically highlights the latest and most important news stories, covering a diverse range of topics such as politics, economics, science, technology, entertainment, and more. In essence, the abstract serves as a snapshot of the current news landscape, giving readers a quick glimpse of the headlines and events shaping the world. It is designed to capture the reader's attention and provide a brief but informative overview of the most significant and noteworthy stories, encouraging them to explore further by clicking on specific articles or categories. The goal is to keep users informed and engaged with the latest developments in an easily digestible format.

Keywords: News Portal, online platform, easily digestible format

Video-sharing platform

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ABSTRACT

Video-sharing platform (VSP) such as YouTube, TikTok, and Twitch Have grown rapidly in recent years and attracted millions of users. Research topics such as online communities, video interactions, and recommendation algorithms have drawn increasing attentions. Group and community dynamics were also examined with live streaming and short form videos. However, HCL literature lacks a holistic picture of video interactions, and recommendation algorithms have drawn increasing attention. Group and community dynamics were also examined with live streaming and short-form videos. However, HCI literature lacks a holistic picture of video-sharing research themes, methods, and findings that summarizes the diverse topics on interaction modalities and communities. Prior reviews on VSP were about a particular platform or reviewed as a part of social media. This paper contributes a scoping review of 106 articles on video-sharing published in HCI literature from 2012 to June 2022. We identified six research themes through grounded theory analysis and encoded five HCI research methods in VSP studies. We concluded a framework with five components to structure findings in video-sharing research, with which were flect on future directions on this topic.

KEYWORDS: Video-sharing, YouTube, Tik Tok,

Web Scraping for E-Commerce Website

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ABSTRACT

The "Web Scraping for E-Commerce Website" In this emerging world of the internet, there is lots of data present and retrieving this data becomes very complicated. As a result web scraping is one of the important methods of data gathering. Web scraping is a technique of extracting data from various websites and depending on the tool end-users can access the data in several formats such as spread sheet, csv, json, xml and database. Web scraping is used in many fields like e-commerce, market research, brand monitoring and etc. Our system proposes a method of fetching product data from e-commerce websites and comparing them. For extracting data different tools are used such as Scrapy, Beautiful Soup, Selenium, etc. Our system uses Beautiful Soup for extracting data. After extraction data is stored into MySQL database. This data is then displayed in a comparable format on our web app. Visiting websites one by one and comparing product details is time consuming, so to overcome this system will display all the product details from various websites, which will help the end user to compare the products.

Web scraping is basically an interactive method for website and some other online sources to browse for and access data. Web scraping is often called automatic data gathering, database discovery, database crawling, or content management mining. Web scraping has possibly existed since before the start of the World Wide Web, but it has been used mainly in the context of data analytics, and is generally associated to e-commerce. Web scraping technique provides a broad collection of options and can serve various purposes: A web crawler's least necessity is to automate the normally physical work of gathering cost quotation marks and website article details. A web crawler's main requirement will be to discover formerly inaccessible sources of price data, and include a survey of all accessible price information. This scraping process is performed using different technologies which can be automatic application tools or manual methods. This paper provides the overall technology.

KEYWORDS: Web Scrapping, database discovery, database scrawling, content management mining.

A Research Paper on Recon

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ABSTRACT

The construction and renovation project aims to transform existing buildings into modern, functional, and sustainable spaces. The project involves a thorough evaluation of the building's condition, identifying areas that require repair, replacement, or upgrade. A team of experts will assess the building's structural integrity, electrical and plumbing systems, and environmental impact to develop a comprehensive renovation plan. The project's objectives include improving energy efficiency, enhancing accessibility, and incorporating sustainable materials and practices. The renovation process will involve collaboration with stakeholders, including architects, engineers, contractors, and local authorities to ensure compliance with building codes and regulations. Effective project management will be crucial to ensure timely completion, budget control, and quality assurance. The outcome of the project will be a revitalized building that meets the needs of its occupants, while minimizing its environmental footprint. The project's success will serve as a model for future construction and renovation initiatives, promoting sustainable development and community growth.

KEYWORDS: Structural integrity, budget control, stakeholders, quality assurance

Thyroid Disease Prediction

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ABSTRACT

Thyroid disease prediction has occurred as an important task newly. Despite existing way for its diagnosis, often the target is binary classification, the used datasets are small-sized and results are not validated either. Thyroid disorders represent a prevalent health concern, necessitating timely and accurate diagnostic approaches. This research delves into the realm of machine learning for enhanced thyroid detection. A comprehensive dataset encompassing diverse thyroid-related parameters is employed to train and evaluate machine learning models. Various algorithms, including but not limited to support vector machines, neural networks, and ensemble methods, are explored to discern patterns indicative of thyroid abnormalities. Feature engineering and selection techniques optimize model performance. The study leverages a sizable dataset sourced from clinical records, incorporating demographic, hormonal, and imaging data. The developed machine learning model exhibits robust classification capabilities, achieving high sensitivity and specificity. Cross-validation and external validation on independent datasets substantiate the model's generalizability. Interpretability analyses shed light on influential features and contribute to the understanding of underlying patterns in thyroid pathology. Furthermore, the proposed system incorporates explain ability mechanisms, enhancing its clinical utility. By providing insights into the decision-making process of the model, healthcare professionals gain valuable information to support their diagnostic interpretations. The model's integration into clinical workflows is explored, considering real-world implementation challenges and ethical considerations.

KEYWORD: Machine learning, Thyroid prediction, forward features selection, bidirectional feature elimination.

Data Security Using Hybrid Encryption and LSB Steganography

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ABSTRACT

This paper proposes a novel approach to bolster data security by integrating Least Significant Bit (LSB) steganography with a hybrid encryption framework comprising Advanced Encryption Standard (AES), Data Encryption Standard (DES), and Rivest-Shamir-Adleman (RSA) algorithms. By combining the strengths of symmetric and asymmetric cryptography, this system provides a robust defence against unauthorized access and data tampering.

KEYWORD: Data Security, Hybrid Encryption, Symmetric Encryption, Asymmetric Encryption, Advanced Encryption Standard (AES), Data Encryption Standard (DES), Rivest-Shamir-Adleman (RSA), Least Significant Bit (LSB) Steganography.

Discovering the Developments in the Real-Estate

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ABSTRACT

The real estate sector is being transformed by technology, with digital platforms enhancing property search, transactions, and management. Innovations like virtual reality tours, blockchain-based transactions, and AI-powered analytics are enhancing efficiency and transparency. Sustainability is a central theme, driving demand for eco-friendly buildings, renewable energy integration, and green infrastructure. Traditional real estate models are being reimagined, with co-living arrangements, shared workspaces, and mixed-use developments catering to changing lifestyle preferences and urbanization trends. Alternative investment avenues like real estate crowd funding and REITs are gaining prominence, offering diversification opportunities and income generation. Addressing housing affordability challenges requires innovative approaches like regulatory reforms, public-private partnerships, and community-driven initiatives. Globalization presents both opportunities and challenges, influencing market dynamics and investment strategies. Understanding these developments is crucial for stakeholders to navigate the complexities of the real estate landscape. By embracing innovation, sustainability, and inclusivity, the industry can contribute to a more resilient and vibrant built environment.

KEYWORD: The analysis includes capital structure, profitability, firm size, liquidity, and business risk.

Content Analysis in Business - A Comprehensive Examination and Strategic Insights

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ABSTRACT

This paper provides a comprehensive overview of a research project titled "Content Analysis in Business: A Comprehensive Examination and Strategic Insights." It begins by acknowledging the pivotal role of content in contemporary business landscapes, highlighting its influence on organizational strategies and consumer perceptions. This sets the stage for exploring Content Analysis as a potent tool for Business Analysis projects, aiming to dissect the complexities of content to extract meaningful insights crucial for informed decision-making within businesses.

The paper ambitiously delves into various content sources, spanning websites, social media platforms, and marketing materials. Using advanced analytical techniques, it seeks to unearth patterns, trends, and sentiments embedded within these sources. Implemented the regression analysis, design tree algorithm, train and test Classifier with Machine learning model gives 97% accuracy of data, with visualize dashboard for project with unique content. However, while the abstract mentions the application of advanced analytical techniques, it could benefit from providing greater specificity regarding the methodologies employed. For instance, elaborating on specific text mining algorithms or sentiment analysis approaches would enhance the clarity of the research methodology.

Keywords: Power BI, SQL, My-SQL, Tableau, Excel, OS –64 bits.

Moringa Oleifera Gumderived Activated Charcoal Decorated Mgo Nanocomposite for the Removal of Basic Dye

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ABSTRACT

The elimination of dye from contaminated water is a challenging environmental task, especially in a large-scale context. Therefore, the aim of this work is the fabrication of magnesium oxide (MgO)/Moringa oleifera gum activated carbon (MOGAC) nanocomposites constructed by the sol–gel method and applied to the photocatalytic removal of basic dye in aqueous solutions under different light irradiations. The phase composition and morphology of the MgO/MOGAC NCs were characterized using XRD, FT-IR, SEM-EDS, UV–Vis-DRS, EDX, Raman Spectra and BET analyser. The SEM image of MOGAC reveals the micro- and mesopores on its surface, which resembles a honeycomb voids-like structure. The surface range of MgO/MOGAC NCs resolute was recorded by BET. The removal performance of the MgO/MOGAC NCs in various pH, catalyst dose, contact times variation of adsorbate viz. Malachite green (MG) and Eriochrome Black T (EBT)dye concentrations were assessed. Various kinetic equations were used to study the removal experimental results. Also, the MgO/MOGAC NCs sustained good stability after basic dye removal.

KEYWORD: MgO/MOGAC NCs, Sol–gel method, basic dye removal.

CaS:Pr Phosphor's Paramagnetic Behavior

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ABSTRACT

Magnetic susceptibility of CaS:Pr has been studied at room temperature (300' K) by varying the concentration of Pr from 0.004 to 0.120 % by weight Paramagnetic behaviour of Pr ions is explained using tri/tetra valent state of Pr along with cluster hypothesis. This study shows that Activator centres CaS lattice in trivalent state at lower concentration and in tetravalent state at higher concentration Clustering of ions occurs at 0.02% of weight of Pr and above.

KEYWORD: CaS:Pr, Magnetic susceptibility

PARTAP SHARMA: A BIOGRAPHICAL SKETCH

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ABSTRACT :

In the realm of Indian English literature **Partap Sharma** (1939-2011) happens to be an Indian English playwright and novelist. He was born on 12th December, 1939. Hails from Punjab, mainly he wrote more than six plays and most of them brought him name and fame in home and overseas too. His masterpieces are '*A Touch of Brightness', 'Begum Sumroo', 'Zen Katha'* and *Sammy!* His all dramas are staged with great appreciation. He employed the themes like sex, women exploitation, history, spiritualism, patriotism, symbolism, myth and existentialism in his dramatic and fictional works. He has a lone novel to his credit, '*The Days of Turban'*. Besides, he is an author of books for children, director, commentator, anchor, actor, voice-over artist, documentary film-maker and polymath. A gifted writer, Sharma covers a wide range of subjects and perspectives, and as a master craftsman delivers intricate ideas simply. Partap Sharma seems to be an outstanding writer in the galaxy of creative Indian English writers. Partap Sharma's literary contribution is vast and varied One who reads the dramas and novel of Sharma finds in him a superb craftsman, a great storyteller and also a thinker who has striven to give artistic expression to his views on life and human destiny. Known as *the* ***Golden Voice of India***, Partap Sharma was always warm, encouraging and inspirational. He breathed his last on 30th November, 2011. The world will be sadder without him but greater for his contributions.

KEYWORDS : Indian English drama, novel, Partap Sharma

ABOUT GES, GONDIA

Gondia Education Society was founded by Great Philanthropist, social worker and a true Gandhian Late Shri Manoharbhai Patel in the year 1958. After the days of British Raj, India needed to develop in all fronts. At this juncture, Gandhiji invited people with good economic standing like industrialists to be the custodian of the society and to spend their money for the welfare of the society in particular and nation in general because he believed, “Education should be so revolutionized as to answer the wants of the poorest villager, instead of answering those of an imperial exploiter.” Late Shri Manoharbhai Patel, being a true Gandhian joined this noble adventure of nation building with his few trusted friends and decided to spread education among the poorest of the poor of east Vidarbha Region.

Literacy and education were not the priority of the British Raj as their sole focus was to hold on to their colony, India, the jewel in the Crown. Most of the districts of India were suffering for want of mere basic amenities. Bhandara was also one of those districts worst affected.

GES INSTITUTES

NATWARLAL MANIKLAL DALAL COLLEGE OF ARTS AND COMMERCE
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MANOHARBHAI PATEL INSTITUTE OF ENGINEERING & TECHNOLOGY, BHANDARA

N. H. NO. 6, SHAHAPUR, BHANDARA - 441 906

INSTITUTE CODE : 4302

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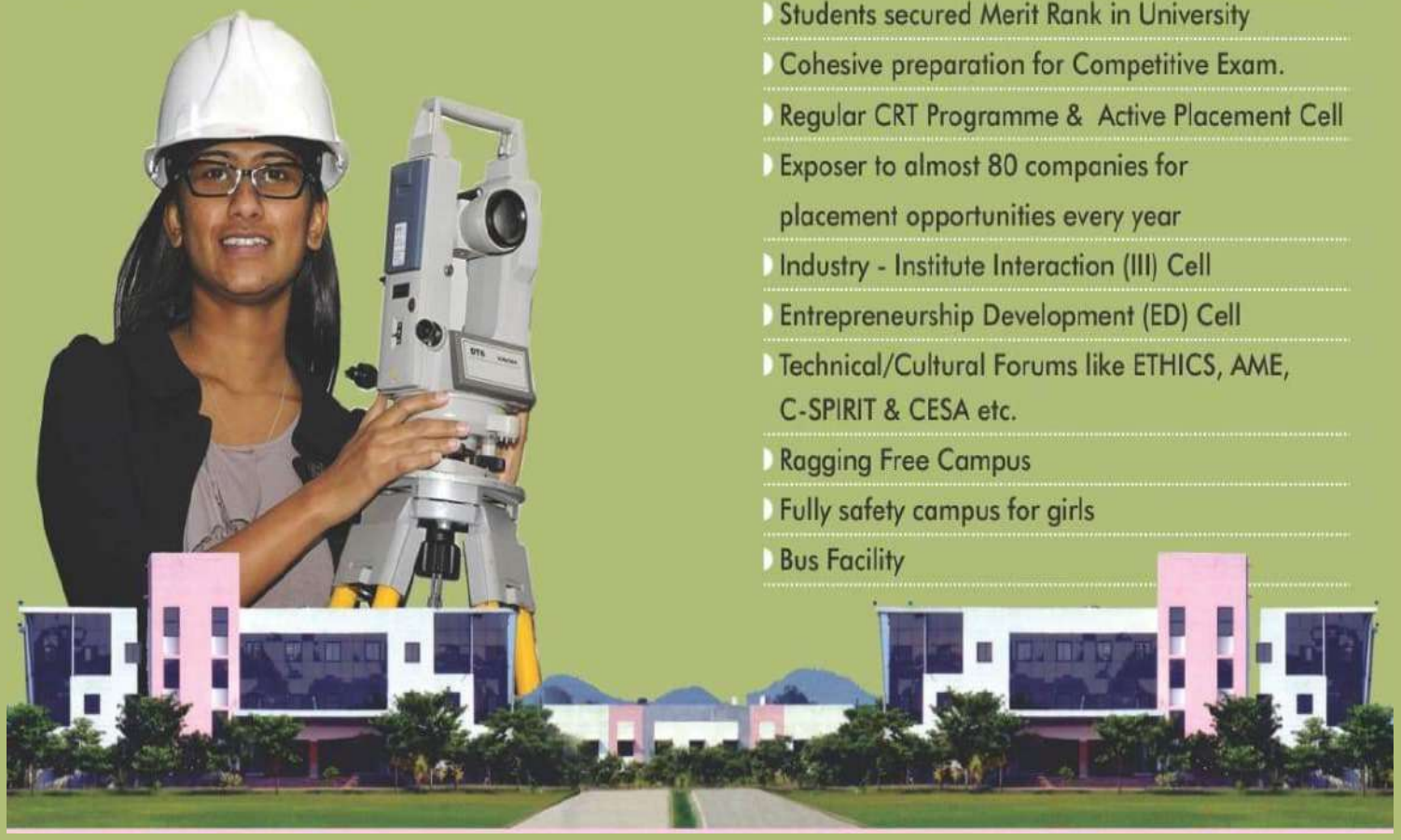
Branch	Branch Code
Computer Engineering	430224510
Mechanical Engineering	430261210
Civil Engineering	430219110



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