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Department of Electronics & Communication Engineering

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Technical Magazine
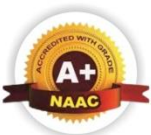
Session 2023-24

DTE Code: 4151   www.tgpcet.com

TULSIRAMJI GAIKWAD-PATIL
College of Engineering & Technology

Approved by AICTE, New Delhi and Govt. of Maharashtra | An ISO 9001:2015 Certified Institution
Affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

AN AUTONOMOUS INSTITUTE

A+ NAAC
ACCREDITED WITH GRADE

VISION & MISSION

VISION OF THE INSTITUTE

To emerge as a learning Center of Excellence in the National Ethos in domains of Science, Technology and Management.

MISSION OF THE INSTITUTE

To strive for rearing standard and stature of the students by practicing high standards of Professional ethics, transparency and accountability.

To provide facilities and services to meet the challenges of Industry and Society.

To facilitate socially responsive research, innovation and entrepreneurship.

To ascertain holistic development of the students and staff members by inculcatingKnowledge and profession as work practices.

VISION OF THE DEPARTMENT

"To emerge as a learning Hub and center of excellence in the domain of Electronics and Communication Engineering."

MISSION OF THE DEPARTMENT

To impart quality technical education through effective teaching learning process.

To provide a platform for addressing societal issues & challenges encountered by industries

To foster a culture of research & instill innovative & entrepreneurial skills.

To promote lifelong learning in order to foster the holistic development of students & staff through the knowledge & professional ethics.

PEO'S

Graduates will be able to

PEO 1: Demonstrate essential technical skills to identify analyze and solve problems and design issues in Electronics and Communication Engineering.

PEO 2: Apply field knowledge, research and professional practices to meet the requirements of industries.

PEO 3: Imbibe lifelong learning practices and entrepreneurship skills in tune with emerging technologies.

PEO 4: Inculcate professional ethics and managerial skills to satisfy real life problems for serving the needs of society and environment.

PSO'S

Graduates will be able to

PSO 1: Formulate solutions to intricate engineering problems by applying fundamental principles from the Electronics and Communication Engineering technology.

PSO 2: Develop methodologies to analyze and design circuits in electronics for communication applications to meet the societal needs

PSO 3: Implement project-based learning techniques to conduct experiments in Embedded Systems, communication system, signal and Image processing, Circuit analysis and design to work.

PROGRAM OUTCOME

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET) was established in theyear 2007 by Vidarbha Bahu-uddeshiya Shikshan Sanstha (VBSS), a registered society. It is a selffinanced Private Engineering College, which is affiliated to Rashtrasant Tukadoji Maharaj Nagpur University (RTMNU) Nagpur an disapproved by All India Council for Technical Education, New Delhi. Also college is approved by Directorate of Technical Education (DTE), Mumbai, Maharashtra State. The Institute is Accredited with A+ (3.32 CGPA) by NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC). An Autonomous Institute affiliated to RTM Nagpur University, Nagpur.

The College offers four years UG programs in Nine disciplines of engineering viz. Bio-Technology (B.Tech), Aeronautical Engineering (AE), Computer Science and Engineering (CSE), Information Technology (IT), Electronics and Communication Engineering (ECE), Mechanical Engineering (ME),Civil Engineering (CE), Electrical Engineering (EE) Computer Science and Engineering (Data Science).

TGPCET offers Eight PG programs in engineering viz. Computer Science and Engineering (CSE), Integrated Power System (IPS), Structural Engineering (SE), Electronics and Communication Engineering (ECE), Artificial Intelligence, Machine Learning (AIML) & Mechanical Engineering design (MED), Aeronautical Engineering (AERO) and Electric Vehicle (EVT) and also offers Two years PG programs in Master of Business Administration (MBA) as well as Two years Master in Computer Application (MCA).

In addition TGPCET conducts three years Diploma programs in six disciplines of engineering such as Civil Engineering (CE), Mechanical Engineering (ME), Computer Science and Engineering (CSE) and Electrical Engineering (EE), Electronics and Communication Engineering (ECE) and Information Technology (IT).

College is located in the midst of Multimodal International Cargo Hub and Airport (MIHAN) and also in the vicinity of Butibori Industrial area, Nagpur.

College offers additional courses beyond syllabus to expose the students towards the industrial climate by conducting courses in C++ with PYTHON, C#.NET, Java, Oracle-SQL and Administration, CCNA, PLCSCADA, MATLAB, AUTOCAD, STAADPRO, CREO, PHP.

The college has signed MoU with Charusat University, Gujrat Dr. Panjabrao Deshmukh Krishi Vidyapeeth (PDKV), Akola and Vignan's University, Guntur to excel the academic and research capability of staff and students in the emerging fields of Science, Engineering and Agriculture.

Established with B.Tech ECE in the year 2007-08 with an intake of 60. It has been one of the key departments, active in teaching and research since its inception in 2007. It has well qualified and experienced faculty with novel teaching methods.

Research and training activities are based on VSAT, Atmel, μP & μC and SATCOM laboratories. A separate computing facility has been established to carry out project work and design jobs taken up by the department.

The Department has a state-of-the-art Microwave & Radar Engineering Laboratory in addition to well- equipped laboratories in the areas of Electronic Devices, Communication Engineering, Digital Signal Processing, Microprocessor and Microcontroller and Digital Electronics.

The department has Industry Institute Partnership Cell (IIPC) which aims to establish and explore proper links with various departments, agencies and industries all over the country. It also aims to work in close coordination with the industries and organizations for placement and training of the students, to support R & D and sponsored projects from industries, to exchange personnel between the Industries and the Institute by organizing guest lectures by Industrial experts, evaluation of project work, development of curriculum as per industry needs and other academic work in the Institute.

The sponsored project of our students "GSM Based Automatic Response System for Locomotive Trouble Shooting" designed for the three phase locomotives WAG 9 / WAP 5 / WAP 7 in Indian Railways, started under the guidance of TRO dept. of Central Railway Commission in Nagpur Division is appreciated by General Manager, Central Railways Mr. Subodh Jain in Ballarshah during his annual inspection of Ballarshah- Sevagram section and is practically implemented in Nagpur division.

The project was published in BPQ – SEGM section Booklet-B: Performance Parameter of Central Railway, Nagpur on 17th January 2012.

Student of ECE Department won 2nd Prize in XVIIth ISTE Student National Annual Convention for best Engineering Project at Rajkot.

Dear Esteemed Readers,

It is with great pleasure and pride that I extend my warmest greetings to you through the pages of this esteemed technical magazine. As the Head of the Electronics & Communication Engineering Department, I am thrilled to share some of the extraordinary accomplishments that our department as achieved over the past year.

Our commitment to excellence in education and research is reflected in the numerous awards earned by both our students and faculty members. This accomplishment not only showcases the dedication of our students but also speaks volumes about the quality of education and resources provided by our department.

I am delighted to announce that our department has consistently produced university toppers, exemplifying the academic prowess of our students. This is a testament to the high standards we maintain in our teaching methodologies, as well as the continuous support provided to our students to help them excel in their academic pursuits.

Furthermore, our faculty members have actively engaged in efficient projects, contributing significantly to the body of knowledge in Electronics and Communication Engineering. Their research endeavors have not only garnered attention within our academic community but have also madea valuable impact on the wider field.

As we celebrate these achievements, it is important to recognize that they would not have been possible without the collective efforts of our dedicated students, passionate faculty members, and the unwavering support from the institute administration and management.

Looking ahead, we remain committed to fostering an environment of innovation, excellence, and continuous learning within our department. We are determined to build on our successes and overcome new challenges, with the ultimate goal of contributing meaningfully to the advancement of in Electronics and Communication Engineering.

I extend my heartfelt gratitude to everyone who has been a part of this incredible journey, and I invite you to delve in to the pages of this magazine to explore the depth of our achievements and the promising future that lies ahead.

Warmr egards,

Dr. Sanjay Asutkar
Head of Department Electronics and Communication
Engineering Department Tulsiramji Gaikwad Patil
College of Engineering and Technology, Nagpur

MESSAGE FROM HOD

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7.	Students achievements
8.	Faculty achievements

Smart IoT-Based Multipurpose Robot

Mr. Roshan Bawne. Mr. Sulabh Kotangale. Mr. Sumit Selokar.
Ms. Puja Raut. Ms. Chetna Gaikwad.

ABSTRACT

It has many advantages for use in big farms of crops and other plants and thus it will be Raspberry Pi camera automatically detects signs of disease whenever they appear on the leaves of the plant. In pharmaceutical research leaf disease detection is a necessary and important topic for research because it has advantages in monitoring crops in the field at the form and thus it automatically detects symptoms of the disease by image processing by the CNN algorithm. The term disease means the type of damage to the plants.

IOT Based Smart Blind Stick

Mr. Jayesh Burbure Mr. Chetan Shiwarkar
Mr. Pratyush Shende Ms. Alisha Sakhare

Abstract:

People with visual impairments face numerous challenges daily because the existing assistive technologies often do not meet consumer expectations regarding affordability and the level of assistance provided. This research presents a novel type of assistive Smart Blind Stick designed specifically for blind students. The stick, equipped with sensors, can detect obstacles and navigate a path with precise directionality. The power source powers the Arduino Nano. Its essential components, consisting of the ultrasonic sensor, control module, and Buzzer, are made up by the obstacle detection module's processing and output units.

IOT Based Railway Accident Prevention and Automation

Mr. Prem Kaikade Mr. Harshal Bawne Mr. Sanket Kapse
Mr. Aditya Gudmewar Ms. Shyamal Patil

Abstract:
Determining tracks manually can be burden as well as not completely accurate because of extensive time demands and a need for qualified personnel. To order to tackle the problem effectively with advanced technology's solutions based on IOT, we present in this paper an railway track crack detection system. By collecting a significant amount of data it is feasible to achieve localization and tracking for Railway Fault Detection.

IOT Based Smart City

Mr. Nilesh Mishra Ms. Sonali Pawar Mr. Ravi Patle
Ms. Sonali Giri Mr. Arbaz Khan

Abstract:
In the era of rapid urbanization and technological advancement, the concept of a smart city has emerged as a promising solution to address the complex challenges faced by moder urban environments. This project presents an innovative approach towards building a smart city infrastructure leveraging the Internet of Things (IoT) technology.

Student Corner: Best Student Projects

Sr. No.	Name of Project Group Leader	Group Members Name	Guide Name	Title of Project	Remark
1	Mr. Roshan Bawne	Mr. Roshan Bawne. Mr. Sulabh Kotangale. Mr. Sumit Selokar. Ms. Puja Raut. Ms. Chetna Gaikwad.	Prof. Sandeep Thakre	Smart IoT-Based Multipurpose Robot	Innovative Agriculture Based
2	Mr. Prem Kaikade	Mr. Prem Kaikade Mr. Harshal Bawne Mr. Sanket Kapse Mr. Aditya Gudmewar Ms. Shyamal Patil	Prof. Rohini Pochhi	IOT Based Railway Accident Prevention and Automation	Industry Social
3	Mr. Jayesh Burbure	Mr. Jayesh Burbure Mr. Chetan Shiwarkar Mr. Pratyush Shende Ms. Alisha Sakhare	Prof. Pallavi Rokade	IOT Based Smart Blind Stick	Application Based
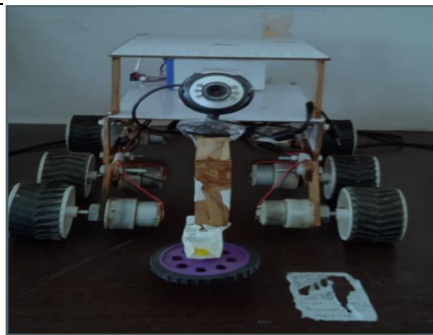
Smart IoT-Based Multipurpose Robot

IOT Based Railway Accident Prevention and Automation

IOT Based Smart City

Faculty Research Corner
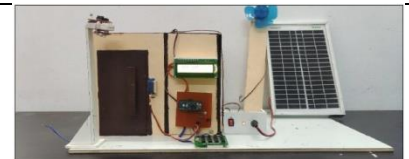
Sr. No.	Name of the Faculty	Title of Paper	Volume /IssueISSN/ ISBN/DOI	Details of Journal	Indexing (Web of Science/Scopus/ UGC Care/ Peer Reviewed)
1	Dr. Sanjay Asutkar	Design and Implementation of Retinal Eye Disease Detection Based on Machine Learning.	15th &16th March 2024	Indian Knowledge System, Science And Spirituality For Advancing Technology (IC-IKSAT-2K24)	Tulsiramji Gaikwad Patil College of Engineering & Technology, Nagpur
2	Dr.Sanjay Asutkar	Design and Implementation of Retinal Eye Disease Detection Based on Machine Learning.	23rd & 24th February 2024	Recent Trends in Science, Engineering &Technology (ICRTSET-2024), AICTE, IETE & ISTE Approved.	Govindrao Wanjari College of Engineering &Technology, Nagpur
3	Dr. Bharti Sayankar	Transforming Healthcare Harnessing the Power of IoT in the Healthcare System	6th & 7th April 2024	2nd International Conference on Trends in Material Science and Mechanical Engineering (ICTMSME 2024)	VIT Nagpur
4	Dr. Pravin Tajane	Design and Development of an RTC Based Relay Board for Precision Control of Industrial Motors	15th &16th March 2024	Indian Knowledge System, Science And Spirituality For Advancing Technology (IC-IKSAT-2K24)	Tulsiramji Gaikwad Patil College of Engineering &Technology, Nagpur
5	Dr. Pravin Tajane	Design and Development of an RTC Based Relay Board for Precision Control of Industrial Motors	23rd & 24th February 2024	Recent Trends in Science, Engineering &Technology (ICRTSET-2024), AICTE, IETE & ISTE Approved.	Govindrao Wanjari College of Engineering &Technology, Nagpur

6	Prof. Rohini Pochhi	Deep Learning-Based Leaf Disease Detection in Crop Using Images for Agricultural Application	15th &16th MARCH 2024	Indian Knowledge System, Science And Spirituality For Advancing Technology (IC-IKSAT-2K24)	Tulsiramji Gaikwad Patil College of Engineering &Technology, Nagpur
7	Prof. Rohini Pochhi	Deep Learning-Based Leaf Disease Detection in Crop Using Images for Agricultural Application	23rd & 24th February 2024	Recent Trends in Science, Engineering &Technology (ICRTSET-2024), AICTE, IETE & ISTE Approved.	Govindrao Wanjari College of Engineering &Technology, Nagpur
8	Prof. Rahul Dhuture	Design and Implementation of Cluster of Microcontroller for various Data on Real Time	15th &16th March 2024	Indian Knowledge System, Science And Spirituality For Advancing Technology (IC-IKSAT-2K24)	Tulsiramji Gaikwad Patil College of Engineering &Technology, Nagpur
9	Prof. Rahul Dhuture	Design and Implementation of Cluster of Microcontroller for various Data on Real Time	23rd & 24th February 2024	Recent Trends in Science, Engineering &Technology (ICRTSET-2024), AICTE, IETE & ISTE Approved.	Govindrao Wanjari College of Engineering &Technology, Nagpur
10	Prof. Sandeep Thakre	Design and Implementation of fire Security alarm with voice Interaction using IOT	15th &16th March 2024	Indian Knowledge System, Science and Spirituality for Advancing Technology (IC-IKSAT-2K24)	Tulsiramji Gaikwad Patil College of Engineering &Technology, Nagpur

11	Prof. Sandeep Thakre	Design and Implementation of fire Security alarm with voice Interaction using IOT	23rd & 24th February 2024	Recent Trends in Science, Engineering &Technology (ICRTSET-2024), AICTE, IETE & ISTE Approved.	Govindrao Wanjari College of Engineering &Technology, Nagpur
12	Prof. Mayuri Harde	Design and Implementation of an Embedded Edge-Processing Water Quality Monitoring System based on Internet of Things	15th &16th March 2024	Indian Knowledge System, Science And Spirituality For Advancing Technology (IC-IKSAT-2K24)	Tulsiramji Gaikwad Patil College of Engineering &Technology, Nagpur
13	Prof. Mayuri Harde	Design and Implementation of an Embedded Edge-Processing Water Quality Monitoring System based on Internet of Things	23rd & 24th February 2024	Recent Trends in Science, Engineering &Technology (ICRTSET-2024), AICTE, IETE & ISTE Approved.	Govindrao Wanjari College of Engineering &Technology, Nagpur
14	Prof. Khushal Masarkar	Performance analysis of routine protocols for an efficient data transmission in 5G WSN communication	15th &16th MARCH 2024	Indian Knowledge System, Science And Spirituality For Advancing Technology (IC-IKSAT-2K24)	Tulsiramji Gaikwad Patil College of Engineering &Technology, Nagpur
15	Prof. Khushal Masarkar	Performance analysis of routine protocols for an efficient data transmission in 5G WSN communication	23rd& 24th February 2024	Recent Trends in Science, Engineering &Technology (ICRTSET-2024), AICTE, IETE & ISTE Approved.	Govindrao Wanjari College of Engineering &Technology, Nagpur

16	Prof. Pallavi Rokade	Development of Android based online monitoring and control system for Renewable Energy Sources	15th &16th March 2024	Indian Knowledge System, Science and Spirituality for Advancing Technology (IC-IKSAT-2K24)	Tulsiramji Gaikwad Patil College of Engineering &Technology, Nagpur
17	Prof. Pallavi Rokade	Development of Android based online monitoring and control system for Renewable Energy Sources	23rd & 24th February 2024	Recent Trends in Science, Engineering &Technology (ICRTSET-2024), AICTE, IETE & ISTE Approved.	Govindrao Wanjari College of Engineering &Technology, Nagpur
18	Prof. Amol Dhenge	Design and Implementation of Clusters of Microcontroller for various sensors data on real time	15th &16th March 2024	Indian Knowledge System, Science and Spirituality for Advancing Technology (IC-IKSAT-2K24)	Tulsiramji Gaikwad Patil College of Engineering &Technology, Nagpur
19	Prof. Amol Dhenge	Design and Implementation of Clusters of Microcontroller for various sensors data on real time	23rd & 24th February 2024	Recent Trends in Science, Engineering &Technology (ICRTSET-2024), AICTE, IETE & ISTE Approved.	Govindrao Wanjari College of Engineering &Technology, Nagpur
20	Prof.Suraj Mahajan	Intelligent Object Detection using Bioinspired Convolutional Kalman Neural Network	24th &25th April 2024	International Conference on Technological Innovation & Applications In Industry 4.0 Challenges and Way Ahead (ICTIA-2024)	St. Vincent Pallotti College of Engineering, Nagpur

Faculty Research Corner - Patent

Sr. No	Name of Faculty	Title of Invention	Patent Number	Date of Filling	Date of Publication
1	1. Dr. Sanjay Asutkar 2. Dr. Pravin Tajane 3. Prof. Rohini Pochhi 4. Prof. Rahul Dhuture 5. Prof. Sandeep Thakre	Fruit Image Recognition and Calorie Measurement using Convolutional Neural Network (CNN)	2023210322 69 A	24/04/2024	24/05/2024
2	1. Dr. Bharati Sayankar 2. Dr. Pravin Tajane	Leaser Level Measuring Instrument	418301-001	29/05/2024	Application under process (Waiting for Technical Examination)
3	Dr. Bharati Sayankar	AI Smoke Bomb Drone	393067-001	19/08/2023	Under Secrecy Direction
4	Dr. Sanjay Asutkar	Machine Learning approaches for Rainfall prediction and crop health management in Intelligent Agriculture	2024210444 78 A		12/07/2024

Faculty Research Corner- Copy Right

Sr. No	Name of Faculty	Title of Work	Diary Number	Date of Application	Date of Publication
1	1. Prof. Suraj Mahajan 2. Mayuri Harde	Enhanced Arduino based traffic light control for Emergency vehicle using radio frequency	17026/2024 -CO/L	28/05/2024	In Process
2	1. Prof. Pallavi Rokade 2. Prof. Sandeep Thakre	IoT based Smart Blind Stick	17342/2024	30/05/2024	In Process
3	1. Prof. Rahul Dhuture 2. Dr. Pravin Tajane	IoT Based Smart City	20371/2024	22/06/2024	In Process
4	1. Dr. Bharati Sayankar 2. Prof. Amol Dhenge	IoT Based Solar Charging Ststion for E-Vehicle	17844/2024	01/06/2024	In Process

Research Corner: Student Publications

Sr. No.	Name of Student	Topic	Publication Information	Position/ Remark	Event Organized By
1	Mr. Kashish Banerjee Ms. Aishwarya Madnure Ms. Maheshwari Yamunwad Ms. Nisha Bichkewar Ms. Swati Shende	IOT BASED SOLAR CHARGING STATION FOR E-VEHICLE	IJIRT Volume No 10 issue 11, April 2024.	Published	INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN TECHNOLOGY (IJIRT)
2	Mr. Kashish Banerjee Ms. Aishwarya Madnure Ms. Maheshwari Yamunwad Ms. Nisha Bichkewar Ms. Swati Shende	IOT BASED SOLAR CHARGING STATION FOR E- VEHICLE	IC-IKSAT-2K24 15TH and 16TH March 2024	Published	Indian Knowledge System Science & Spirituality Of Advancing Technology
3	Mr. Ankit Bhagat, Ms. Disha Moon, Ms. Sayali Shewale, Ms. Kalyani Wadatkar, Ms. Kavitri Miravi.	IoT-Based Transmission Line Fault Detector	2K24 (IRJMETS-2K24) 05th May 2024.	Published	International Research Journal of Modernization in Engineering Technology and Science
4	Mr. Ankit Bhagat, Ms. Disha Moon, Ms. Sayali Shewale, Ms. Kalyani Wadatkar, Ms. Kavitri Miravi.	IoT-Based Transmission Line Fault Detector	2K24 (IC-IKSAT-2K24.) 15th-16th March 2024.	Published	Indian Knowledge System, Science and Spirituality for Advancing Technology
5	Mr. Jayesh Burbure, Mr. Chetan Shiwarkar, Mr. Pratyush Shende, Ms. Alisha Sakhare.	IOT Based Smart Blind Stick	2K24 (IRJMETS-2K24) 04th April 2024.	Published	International Research Journal of Modernization in Engineering Technology and Science
6	Mr. Jayesh Burbure, Mr. Chetan Shiwarkar, Mr. Pratyush Shende, Ms. Alisha Sakhare.	IOT Based Smart Blind Stick	2K24 (IC-IKSAT-2K24.) 15th-16th March 2024.	Published	Indian Knowledge System, Science and Spirituality for Advancing Technology
7	Mr. Ritik Deotare, Mr. Pratik Patle, Ms. Nayan Saktel, Mr. Sujay Murarkar, Mr. Vijay Lute	Arduino Based Snake Robot	IJIRT, Volume 10, Issue 11, April 2024.	Published	INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH IN TECHNOLOGY

8	Mr. Ritik Deotare, Mr. Pratik Patle, Ms. Nayan Saktel, Mr. Sujay Murarkar, Mr. Vijay Lute	Arduino Based Snake Robot	(IC-IKSAT-2K24).	Published	Indian Knowledge System, Science & Spirituality for Advancing Technology
9	Mr. Ritik Deotare, Mr. Pratik Patle, Ms. Nayan Saktel, Mr. Sujay Murarkar, Mr. Vijay Lute	TECHPRO- A NATIONAL LEVEL PROJECT COMPETITION" under YOUTH-TECH_CONNECT	16th April 2024.	Project Competition	Surodaya College of Engineering And Technology, Nagpur
10	Mr. Ritik Deotare, Mr. Pratik Patle, Ms. Nayan Saktel, Mr. Sujay Murarkar, Mr. Vijay Lute	TECHRISE National Level Event Organized by STEM CLUB in association with ISTE Student Chapter	23rd April 2024.	Project Competition	Tulsiramji Gayakwad Patil College Of Engineering And Technology
11	Mr. Nilesh Mishra Ms. Sonali Pawar Mr. Ravi Patle Ms. Sonali Giri Mr. Arbaz Khan	IOT Based Smart City	(IJNRD), Volume 9, Issue 4, April 2024.	Published	INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT
12	Mr. Nilesh Mishra Ms. Sonali Pawar Mr. Ravi Patle Ms. Sonali Giri Mr. Arbaz Khan	IOT Based Smart City	(IC-IKSAT-2K24). 15th-16th March 2024.	Published	Indian Knowledge System, Science & Spirituality for Advancing Technology
13	Ms. Shweta Keskar Ms. Aachal Wadasakar Ms. Tanushri Hepat Ms. Akshada Vidhate Ms. Lata Dupare	Smart IoT-Based Traffic-Management System	(IJIRT), Volume 10, Issue 11, April	Published	International Journal of Innovative Research in Technology
14	Ms. Shweta Keskar Ms. Aachal Wadasakar Ms. Tanushri Hepat Ms. Akshada Vidhate Ms. Lata Dupare	Smart IoT-Based Traffic-Management System	2K24 (ICIKSAT-2K24.) 15th-16th March2024	Published	Indian Knowledge System, Science and Spirituality for Advancing Technology
15	Mr. Prem Kaikade Mr. Harshal Bawne Mr. Sanket Kapse Mr. Aditya Gudmewar Ms. Shyamal Patil	IOT Based Railway Accident Prevention and Automation	IJIRT , Volume 10, Issue 25 April 2024.	Published	International Journal of Innovative Research in Technology

16	Mr. Prem Kaikade Mr. Harshal Bawne Mr. Sanket Kapse Mr. Aditya Gudmewar Ms. Shyamal Patil	IOT Based Railway Accident Prevention and Automation	2K24 (ICIKSAT-2K24.) 15th-16th March2024	Published	Indian Knowledge System, Science and Spirituality for Advancing Technology
17	Mr. Prem Kaikade Mr. Harshal Bawne Mr. Sanket Kapse Mr. Aditya Gudmewar Ms. Shyamal Patil	IOT Based Railway Accident Prevention and Automation	12th March 2024	Winner Project Competetion	Swaminarayan Siddhanta Institute of Technology
18	Ms. Gracy Shiwankar. Ms. Nikita Dhole. Mr. Shivam Tidke. Mr. Chandrakumar Katre.	IOT Based Remote Patient Health Monitoring System	IJNRD, Volume 09, Issue 4, April-2024.	Published	INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT
19	Ms. Gracy Shiwankar. Ms. Nikita Dhole. Mr. Shivam Tidke. Mr. Chandrakumar Katre.	IOT Based Remote Patient Health Monitoring System	2K24 (ICIKSAT-2K24.) 15th-16th March 2024	Published	Indian Knowledge System, Science & Spirituality for Advancing Technology
20.	Ms. Kanisha Janjarlawar Mr. Pradipdas Sahada Mr. Amankumar Sahada	IOT BASED GAS LEAKAGE BASED AUTOMATIC REGULATOR CONTROL	(IJIRT) ,Volume 10, Issue ,April	Published	International Journal of Innovative Research in Technology
21	Ms. Kanisha Janjarlawar Mr. Pradipdas Sahada Mr. Amankumar Sahada	IOT BASED GAS LEAKAGE BASED AUTOMATIC REGULATOR CONTROL	2K24 (ICIKSAT-2K24.) 15th-16th March 2024	Published	Indian Knowledge System, Science & Spirituality for Advance Technology
22	Mr. Roshan Bawne. Mr. Sulabh Kotangale. Mr. Sumit Selokar. Ms. Puja Raut. Ms. Chetna Gaikwad.	Smart IoT-Based Multipurpose Robot	IJREM, Volume 06/Issue: 04/April-2024.	Published	International Research Journal of Modernization in Engineering Technology & Science
23	Mr. Roshan Bawne. Mr. Sulabh Kotangale. Mr. Sumit Selokar. Ms. Puja Raut. Ms. Chetna Gaikwad.	Smart IoT-Based Multipurpose Robot	2K24 (IC-IKSAT-2K24.) 15th -16th March 2024.	Published	Indian Knowledge System, Science & Spirituality for Advance Technology

24	Mr. Roshan Bawne. Mr. Sulabh Kotangale. Mr. Sumit Selokar. Ms. Puja Raut. Ms. Chetna Gaikwad.	GEN Z IDEA GENESIS 2K24 National Level Project Competition.	15th April 2024.	1st Rank with Project entitled Organized	E-Cell, Nagpur Institute of Technology Nagpur on
25	Mr. Roshan Bawne. Mr. Sulabh Kotangale. Mr. Sumit Selokar. Ms. Puja Raut. Ms. Chetna Gaikwad.	YOUTH-TECH-CONNECT TECHPRO 2K24 A National Level Project Competition. Organized by	16th April 2024	Participated	E-Cell, Suryodaya College of Engineering & Technology, and Nagpur
26	Mr. Roshan Bawne. Mr. Sulabh Kotangale. Mr. Sumit Selokar. Ms. Puja Raut. Ms. Chetna Gaikwad	ISTE - TECHRISE NATIONAL LEVEL EVENT" Project Competition	23 April 2024.	2nd Rank Project Competition	E-Cell, Tulsiramji Gaikwad-Patil College of Engineering and Technology, Nagpur

Faculty Achievement NPTEL

Sr. No.	Name of Students	Course	Position/ Remark	Organized by / Date of Conduction
1	Prof. Suraj Mahajan	NATE	Elite + Silver 83%	NPTEL/SWAYAM
2	Prof. Rohini Pochhi	NATE	Elite + Silver 75%	NPTEL/SWAYAM
3	Prof. Rahul Dhuture	NATE	Elite 72%	NPTEL/SWAYAM
4	Dr. Sanjay Asutkar	NATE	Elite 71%	NPTEL/SWAYAM
5	Prof. Pallavi Rokade	NATE	Elite 71%	NPTEL/SWAYAM
6	Prof. Mayuri Harde	NATE	Elite 70%	NPTEL/SWAYAM
7	Prof. Sandeep Thakre	NATE	Elite 60%	NPTEL/SWAYAM

Research Publication - Session 2023-2024

Sr. No.	Conference/Journal Name	Name of Student	Guide Name	Publication	Title of Paper
1	International Journal of Innovative Research in Engineering	Mr. Sameer Nakhale	Dr. Sanjay Asutkar	ISSN No 2582-8746 Vol 5 Issue 2 March-April 2024 PP 146-150	Deep Learning –Based Leaf Disease Detection in Crop Using images for Agricultural Application
2	International Journal of Innovative Research in Engineering	Ms. Priyanka Gaherwar	Prof. Amol Dhenge	ISSN No 2582-8746 Vol 5 Issue 2 March-April 2024 PP 99-102	Design & Implementation of Clusters of Microcontroller for Various Sensors Data on Real Time Using Embedded System
3	International Journal of Innovative Research in Engineering	Ms. Samiksha Gedam	Prof. Rohini Pochhi	ISSN No 2582-8746 Vol 5 Issue 2 March-April 2024 PP 94-98	Development of Android based online monitoring and control system for Renewable Energy Sources
4	International Journal of Innovative Research in Engineering	Ms. Meenakshi Atalkar	Dr. Sanjay Asutkar	ISSN No 2582-8746 Vol 5 Issue 2 March-April 2024 PP 91-93	Design and Implementation of Retinal Eye Disease Detection Based on Machine Learning.
5	International Journal of Innovative Research in Engineering	Ms. Sushmita Kamble	Prof. Rohini Pochhi	ISSN No 2582-8746 Vol 5 Issue 2 March-April 2024	Design and Implementation of Multiple Sensor for Data Broadcasting using 29 Bit CAN Bus.
6	International Journal of Innovative Research in Engineering	Mr. Shashank Wankar	Dr.Pravin Tajane	ISSN No 2582-8746 Vol 5 Issue 2 March-April 2024 PP110-114	Design and Development of an RTC Based Relay Board for Precision Control of Industrial Motors

7	International Journal of Innovative Research in Engineering	Ms. Varsha Chaudhari	Prof. Rahul Dhuture	ISSN No 2582-8746Vol 5 Issue 2 March-April 2024	Design and Implementation of fire Security alarm with voice Interaction using IOT
8	International Journal of Innovative Research in Engineering	Ms. Rani Jibhekar	Prof. Rahul Dhuture	ISSN No 2582-8746Vol 5 Issue 2 March-April 2024 PP155-157	Design and Implementation of Embedded Edge-Processing Water Quality Monitoring System based on IOT
9	International Journal of Innovative Research in Engineering	Ms. Ravina Dable	Prof. Sandeep Thakre	ISSN No 2582-8746Vol 5 Issue 2 March-April 2024	Design and Analysis of Deep learning Frame work for Detection of Cancer Disease
10	10th International Conference on Indian Knowledge System, Science and Spirituality for Advancing Technology	Mr. Sameer Nakhale	Dr. Sanjay Asutkar	15th and 16th March 2024	Deep Learning –Based Leaf Disease Detection in Crop Using images for Agricultural Application
11	10th International Conference on Indian Knowledge System, Science and Spirituality for Advancing Technology	Ms. Priyanka Gaherwar	Prof. Amol Dhenge	15th and 16th March 2024	Design & Implementation of Clusters of Microcontroller for Various Sensors Data on Real Time Using Embedded System
12	10th International Conference on Indian Knowledge System, Science and Spirituality for Advancing Technology	Ms. Samiksha Gedam	Prof. Rohini Pochhi	15th and 16th March 2024	Development of Android based online monitoring and control system for Renewable Energy Sources
13	10th International Conference on Indian Knowledge System, Science and Spirituality for Advancing Technology	Ms. Meenakshi Atalkar	Dr.Sanjay Asutkar	15th and 16th March 2024	Design and Implementation of Retinal Eye Disease Detection Based on Machine Learning.

14	10th International Conference on Indian Knowledge System, Science and Spirituality for Advancing Technology	Ms. Sushmita Kamble	Prof. Rohini Pochhi	15th and 16th March 2024	Design and Implementation of Multiple Sensor for Data Broadcasting using 29 Bit CAN Bus.
15	10th International Conference on Indian Knowledge System, Science and Spirituality for Advancing Technology	Mr. Shashank Wankar	Dr.Pravin Tajane	15th and 16th March 2024	Design and Development of an RTC Based Relay Board for Precision Control of Industrial Motors
16	10th International Conference on Indian Knowledge System, Science and Spirituality for Advancing Technology	Ms. Varsha Chaudhari	Prof. Rahul Dhuture	15th and 16th March 2024	Design and Implementation of fire Security alarm with voice Interaction using IOT
17	10th International Conference on Indian Knowledge System, Science and Spirituality for Advancing Technology	Ms. Rani Jibhekar	Prof. Rahul Dhuture	15th and 16th March 2024	Design and Implementation of Embedded Edge-Processing Water Quality Monitoring System based on IOT
18	10th International Conference on Indian Knowledge System, Science and Spirituality for Advancing Technology	Ms. Ravina Dable	Prof. Sandeep Thakre	15th and 16th March 2024	Design and Analysis of Deep learning Frame work for Detection of Cancer Disease

Technical Events (Session 2022-23)

Sr. No.	Activities	Details of Activity	Resource Person	Date of Conduction
1	Expert Lecture	Industrial Automation Under IETE	Mr. Pranav Mehar, Training Manager, Prolific Systems & Technologies PVT. LTD.(Central India Region), Nagpur	25/04/2024
2	Industrial Visit	Hi Tech Resistor Under IETE	Mr. Jitendra Sawalakhe Supervisor Hi Tech Resistor Pvt. Ltd.	30/03/2024
3	Expert Lecture	Role of Electronics & Communication Engineers in Media Communication & Printing Technology Under IETE	Dr. Rajendrakumar Pillewar, Assistant Vice President Lokmat Media Group, Nagpur	27/03/2024
4	Expert Lecture	Career Opportunities in Defense Services for Engg. Students Under IEI	Brig. Sunil Gaopande & Dr. Rajeshwari Wankhede President Life Skills Foundation, Nagpur	22/03/2024
5	Workshop	Three days workshop on Mobile Robotics Under IETE	Mrs. Neema Ukani NU Intelligence Pvt. Ltd.	19/03/2024 to 21/03/2024.
6	Industrial Visit	Air Traffic Control (ATC), Airport Authority of India, Nagpur IEI	Mr. G.H. Khare Head ATC Traning, Nagpur	29/02/2024
7	Industrial Visit	HORIBA India Pvt. Ltd Under IETE	Mr. Aniket Khandaitkar Traning Officer HORIBA India Pvt. Ltd Buttibori, Nagpur	01/12/2023
8	Guest lecture	Cloud Computing Under IEI	Mr. Shailesh Karare, Technical Lead, Infosys	07/11/2023

9	Guest lecture	PLC & SCADA Under ISTE	Mr. Shyam Chandurkar Sr. Engineer Mahagenco from Instrument & Control Department Koradi Thermal Power Station	10/10/2023
10	Expert Lecture	Remote Sensing Application Under IETE	Mr. Sanjay Apturkar Associate Scientist Maharashtra Remote Sensing Application Center, Nagpur	27/09/2023
11	Industrial Visit	Maharashtra Remote Sensing Application Center, Nagpur Under IEI	Mr. Sanjay Apturkar Jr. Scientist MRSAC, Nagpur	27/09/2023
12	Workshop	Two days hands on workshop on Internet of Things (IOT)Under IETE	Mr. Sandeep Sonaskar NU Intelligence Nagpur	20/07/2023 to 21/07/2023
13	Inauguration IETE Student Forum	Forum Installation Under IETE	Dr. Salem Chavan Chairman IETE Principal GWCOE, Nagpur	20/07/2023
14	Industrial Visit	Metro Bhavan, Nagpur Under IEI	Ms. Rashmi Madankar PRO Maha Metro Nagpur	07/07/2023

Mr. Pranav Mehar, Prolific Systems & Technologies Pvt. Ltd.

Industrial Visit:- Hi Tech Resistor, Nagpur

Dr. Rajendrakumar Pillewar, Vice President Lokmat Media Group, Nagpur.

Brig. Sunil Gaopande & Dr. Rajeshwari Wankhede, President Life Skills Foundation, Nagpur

Workshop "Mobile Robotics" from 19th to 21th March 2024 By Ms. Neema Ukani, NU Intelligence

Industrial Visit:- "HORIBA India Pvt. Ltd

Expert Lecture on Cloud Computing:- Mr. Shailesh Karare Tech Lead Infosys ,Nagpur

Expert Lecture on PLC & SCADA:- Mr. Shyam Chandurkar Sr. Engineer Mahagenco Koradi Thermal Power Station, Nagpur

Industrial Visit:-Maharashtra Remote Sensing Application Center, Nagpur

Two days hands on workshop on Internet of Things (IOT) By Mr. Sandeep Sonaskar from NU Intelligence Pvt. Ltd.

IETE Chapter Installation By Dr Salim Chavan, Chairman IETE Chapter

Industrial Visit : Metro Bhavan, Nagpur

Student Achievement

FIRST POSITION in "National Level Project Competition GEN-Z IDEA GENESIS 2K24" organized by Nagpur Institute of Technology, Nagpur.

Second Position National Level Project Competition Organized Under ISTE By TGPCET, Nagpur

Student Achievement

Best Paper Award to Ms. Varsha Choudhari in International Conference Indian Knowledge
System Science & Spirituality of Advancing Technology

Best Paper Award to Ms. Mennakshi Atalkar & Participants in AICTE, IETE & ISTE
Approved 4th International Conference on Recent Trends in Science
Engineering & Technolgy,Wanjari College of Engg,Nagpur.

B.Tech | B.Arch | M.Tech | MBA | MCA | BBA | BCA | Polytechnic | D.Arch | B.Pharm | D.Pharm | BAMS | B.Sc Nursing | Physiotherapy | Ph.D

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Students Achievements

Sr. No.	Name of Students	Course	Position/ Remark	Organized by / Date of Conduction
1	Mr. Sagar Manik	Cloud Computing	Elite + Silver 75%	Swayam/NPTEL
2	Ms. Janvi Patle	Introduction to IoT	Elite-67%	Swayam/NPTEL
3	Mr. Majid Ali	Python & data Science	60%	Swayam/NPTEL
4	Mr. Shubham Nikhade	Digital Circuits	60%	Swayam/NPTEL
5	Ms. Kashish Neware	Introduction to IoT	55%	Swayam/NPTEL
6	Ms. Tanvi Waghmare	Cloud Computing	53%	Swayam/NPTEL
7	Mr. Sagar Manik	Introduction Database System	50%	Swayam/NPTEL
8	Mr. Prassana Pojgey	Cloud Computing	54%	Swayam/NPTEL
9	Ms. Riya Chanhan	Sensors & Actuators	52%	Swayam/NPTEL
10	Mr. Mrunal Padole	Sensors & Actuators	58%	Swayam/NPTEL
11	Mr. Sagar Manik	Microelectronics Devices to Circuits	49%	Swayam/NPTEL

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ELITE + SILVER

Mr. Sagar Manik
(Cloud computing) - **75%**

ELITE

Ms. Janhavi Patle
(Introduction to Internet of Things)
67%

Mr. Maajid Ashfaque Alu
(Python and Data Science)
60%

Mr. Shubham Nikhade
(Digital Circuits)
60%

Successfully Completed NPTEL Course

Ms. Kashish Neware
(Introduction To Internet of Things)
55%

Ms. Tanvi Waghmare
(Cloud Computing)
53%

Mr. Sagar Manik
(Intoduction to Database System)
50%

Mr. Prasana Pojgey
(Cloud Computing)
54%

Ms. Riya Chauhan
(Sensors and Actuators)
52%

Mr. Mrunal Padole
(Sensors and Actuators)
58%

Mr. Sagar Manik
(Microelectronics Devices to Circuits)
49%