ELEVATE WITH INNOVATION

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Vision of the Institute

To emerge as a learning Center of Excellence in the National Ethos in Diploma in Engineering.

Mission of the Institute

M1: To elevate the standards of students through ethical practices.

M2: To provide facilities and services to meet the challenges of Industry and Community.

M3: To ascertain holistic development of the students and staff members by inculcating knowledge and profession as work practices.

Vision of the Department

To emerge as a learning Center of Excellence in the domain of Computer Science and Engineering to produce proficient diploma engineers.

Mission of the Department

M1: To impart quality technical education in the field of Computer Science & Engineering and develop the skill through modern teaching & learning method.

M2: To provide learning environmental to face societal and industrial challenges of Computer Science & Engineering.

M3: To ensure overall development of students and staff members by inculcating knowledge and professional ethics as a part of lifelong learning.

About TGPCET

Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET) Polytechnic was established in the year 2013 by Vidarbha Bahu-Uddeshiya Shikshan Sanstha (VBSS), a registered society. It is a self financed Private Polytechnic , which is affiliated to Maharashtra State Board of Technical Education (MSBTE) Mumbai and is approved by All India Council for Technical Education, New Delhi. Also college is approved by Directorate of Technical Education (DTE), Mumbai, Maharashtra State.

About Department

The Department of Computer Science and Technology at Tulsiramji Gaikwad Patil College of Engineering and Technology offers two specialized branches: Computer Science and Information Technology. With modern labs, experienced faculty, and an industry-focused curriculum, the department ensures strong technical foundations. It promotes practical learning through projects, workshops, and coding events. Students gain exposure to emerging fields like AI, Cybersecurity, and Data Science, preparing them for successful careers in tech.

HOD's Desk

Priyanka Choudhary

HOD, CW, Polytechnic

Welcome to the vibrant and dynamic Department of Computer Science & Engineering at TGPCET Polytechnic, Nagpur! In an era where technology evolves at an unprecedented pace, our department takes pride in nurturing the next generation of innovative minds in the realm of computing. We are committed to providing a robust academic foundation combined with practical exposure, enabling our students to thrive in the ever-changing tech landscape. At TGPCET Polytechnic, our distinguished faculty members bring a wealth of industry experience and academic expertise to the class room. We believe in cultivating an environment that encourages curiosity, critical thinking, and creativity among our students. Our focus extends beyond traditional learning methods, emphasizing hands- on experiences through state-of-the-art laboratories and collaborative projects. We aim not only to impart technical knowledge but also to instill ethical values and a sense of responsibility in our students, empowering them to become socially conscious professionals. Our department is dedicated to fostering an inclusive community where diversity is celebrated, ideas are exchanged freely, and each individual's potential is recognized and nurtured. We encourage our students to engage in extracurricular activities, research endeavors, and industry collaborations to broaden their horizons and prepare for the challenges of tomorrow. As the Head of Department, I invite you to explore the multitude of opportunities available within our department. Whether you aspire to develop ground breaking software, delve into cybersecurity, explore artificial intelligence, or innovate in any other computing domain, TGPCET Polytechnic is the ideal platform to embark on your journey towards success. I extend my best wishes to all our students and encourage them to dream big, strive for excellence, and make a meaningful impact in the world of Computer Science & Engineering

PEO's, PSO's & PO's

Programs Educational Objectives:

PEO 1. Provide socially responsible, environment friendly solutions to Computer engineering related broad-based problems adapting professional ethics.

PEO 2. Adapt state-of-the-art Computer engineering board-based technologies to work in multi-disciplinary work environments.

PEO 3. Solve broad-based problems individually and as a team member communicating effectively in the world of work

Programs Specific Outcomes:

PSO 1. Computer Software and Hardware Usage:
Use state-of-art technologies for operation and application of computer software and hardware.

PSO 2. Computer Engineering Maintenance:
Maintain computer engineering related software and hardware system.

Programs Outcomes (PO's):

POs are statements that describe what students are expected to know and be able to do upon graduating from the program. These relate to the skills, knowledge, analytical ability attitude and behavior that students acquire through the program.

The POs essentially indicate what the students can do from subject-wise knowledge acquired by them during the program. As such, POs define the professional profile of an engineering diploma graduate.

NBA has defined the following seven POs for an Engineering diploma graduate:

1. **Basic and Discipline specific knowledge:**
   Apply knowledge of basic mathematic science and engineering fundamentals and engineering specialization to solve the engineering problems.

2. **Problem analysis:**
   Identify and analyze well-defined engineering problems using codified standard methods.

3. **Design/ development of solutions:**
   Design solutions for well-defined technical problems and assist with the design of system components or processes to met specified method.

4. **Engineering Tools, Experimentation and Testing:**
   Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.

5. **Engineering Practices for society, sustainability and environment:**
   Apply appropriate technology in context of society, sutainability, environment and ethical practices.

6. **Project Management:**
   Use engineering managements principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.

7. **Life-long learning:**
   Ability to analyze individual needs and engage in updating in the context of technological changes.

Industrial Visit

Department of Computer Science & Engineering in association with Indian Engineering Institution (IEI), and Indian Student Technical Education (ISTE) have organized have organized an Industrial Visit for 3rd year Computer Science & Engineering students on date 21st March at "Cloud blitz Technology, Nagpur"

Aim: To gain practical insights into cloud computing, software development, and IT infrastructure. It helps students understand real-world applications of emerging technologies in the IT industry.

The Department of Computer Science & Engineering of Tulsiramji Gaikwad Patil College of Engineering & Technology, Polytechnic, Nagpur student of third year in association with the Indian Engineering Institution (IEI) and Indian Student Technical Education (ISTE), have organized a visit to "Cloudblitz Technology, Nagpur". The purpose of the visit was to expose students to real-world applications of cloud computing, software development, and IT infrastructure.

Guest Lecture

The **department of Computer Science Engineering** has organized a Personality Development lecture on topic Importance of communication in corporate sector by Prof. Allan Abraham, Corporate Relationship Officer, Shri Ramdeobaba College of Engineering Management, Nagpur

Aim: To focus on how to develop yourself according to corporate sector.

The Programme is organized on 03 March 2023. The introduction and brief about the PD lecture. Lecture start at 01:00 pm and ends at 03.00 pm on same day.

He emphasized her lecture directing the students to overall idea about positive thinking, technical skills, Team work etc. and how to strengthen yourself during tough phase in life.
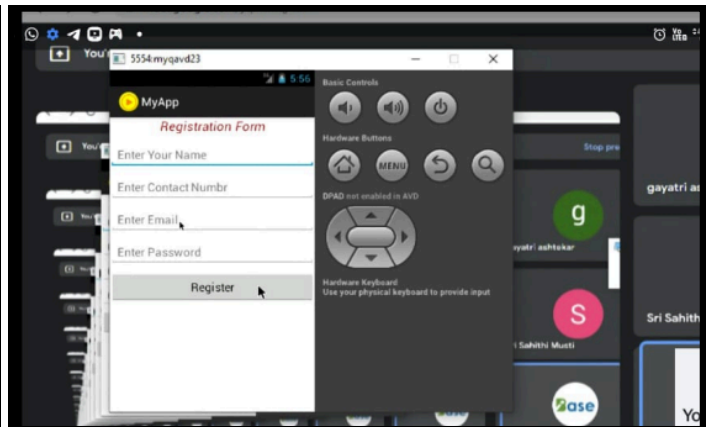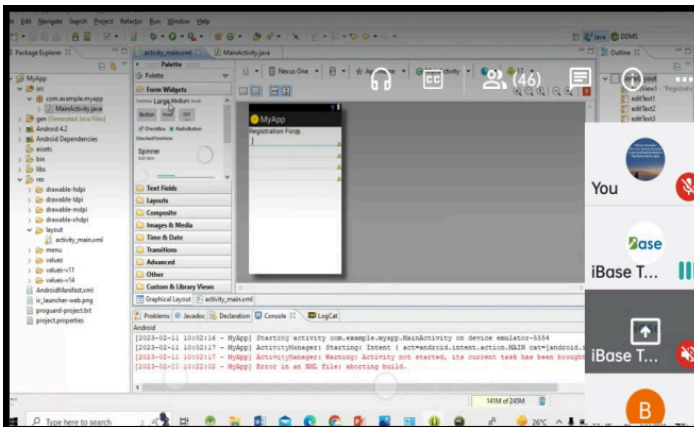
Guest Lecture

Department of Computer Science Engineering under ISTE and IE(I) student chapter have organized Expert Lecture on topic Mobile Application Development " by Mr. Nakul Deshmukh, Director, SE IbaseTechnology , Nagpur

Aim: To provide participants with a comprehensive understanding of modern mobile application development, including current technologies, development methodologies, platform choices, industry trends, and real- world challenges, in order to equip students and professionals.

MR. NAKUL DESHMUKH Sir explained, To provide a solid foundation in mobile application development, including platform architecture, operating systems(Android/Ios),and development environments like Android Studio and Xcode.

To Familiarize Students with development tools and frameworks To introduce industry-standard tools and frameworks such as java, kotlin, swift, Flutter, and react Native, enabling students to understand different approaches like native and cross-platform development. To Emphasize UI/UX Best practices, to help students understand the importance design in app development including the use of design principles and platform-specific guidelines.

Guest Lecture

One-Day Android App Development Workshop Organized at TGPCET

The Department of Computer Science and Engineering at TGPCET successfully organized a One-Day Android App Development Workshop, aimed at enhancing students' technical skills in mobile application development.

The workshop provided hands-on experience in designing, developing, and deploying Android applications. Participants gained practical insights into Android Studio, UI/UX design, and basic coding for apps under the guidance of expert trainers.

The initiative was a valuable platform for students to explore the fundamentals of Android development and stay updated with industry-relevant technologies. The department continues to encourage such skill-based learning to prepare students for real-world challenges.

Let me know if you'd like to add the name of the resource person, date, or any photos/details.

Activity Conducted

Health Check-up Camp Organized at TGPCET

Nagpur, 19 February 2023 —
A comprehensive Health Check-up Camp was successfully organized from 16th to 19th February 2023 at Tulshiramji Gaikwad-Patil College of Engineering & Technology (TGPCET), Nagpur, in collaboration with SureTech College of Nursing, Nagpur.

This initiative was a part of the institution's ongoing commitment to student and staff well-being. The camp offered a wide range of medical services including general health examinations, blood pressure checks, BMI assessments, and basic diagnostic services.

Faculty, staff, and students from various departments enthusiastically participated in the event. The camp aimed to raise awareness about preventive healthcare and promote healthy living habits among the campus community.

Activity Conducted

The National Service Scheme (NSS) Unit of **Tulsiramji Gaikwad-Patil College of Engineering and Technology** of is organized "Tree Plantation" on the date of 14 Feb 2023.

Plantation is one of the most important constituents of soft landscaping. Trees, shrubs and climbers have been used to enhance the soft natural ambience against harsh elements in most of the enhancement schemes. The planting species are decided based on the physical growth characteristics of trees, like form and shape, foliage pattern, growth rate, branching pattern, soil characteristics etc.

The Program Coordinator was **Prof. A.B.Totey, Prof. Praful Randive**. NSS coordinators, **Prof. Divyani Harpal**, **Prof. Abhhay Rewatkar** was present in the event along with **Prof. Darshika Khawase**, **Mr vinod yeole** and **Deorao Rebbawar.**

Technical Workshop

The **department of Computer Science & Engineering** has organized a 2 Days Workshop on topic Python Programming by Mr. Abhijeet Mudholkar & Ms. Shivani Tripathi , Technical Trainer , Software Developer Livewire, Nagpur

Aim: To focus on how to develop technical skills and project development with python

The Programme is organized on 15 & 16 FEB 2023. The introduction and brief about the workshop given by Ms. Shruti Wazhalwar Center Head LiveWire Nagpur. After that Mr. Abhijeet Mudholkar has started Workshop at 11:00 am and ends at 05.00 pm on same day and on also 2nd day .

He emphasized his lecture directing the students to overall idea about technical skills of python history , installation, features, and its applications oops concepts , files , libraries of Data Science thoroughly .Mean while the questions are raised by the students where also answered in an efficient way in all the session by the resource persons .

Students Achievements

TGPCET Boys won 1st prize in Football

TGPCET Polytechnic Girls students won the Inter Engineering Diploma Students Sports Association's (IEDSSA) Athletics 400m of I Zone

Faculty Achivements

TGPCET Faculty Honoured for Best Performance

A proud moment for Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET) as a faculty member was felicitated for Best Performance during a special event organized on campus. The felicitation took place in the presence of institute dignitaries and fellow staff, recognizing dedication, excellence in teaching, and contribution to student development.

Held at the college's seminar hall, the ceremony reflected TGPCET's continued commitment to acknowledging and motivating academic excellence among its faculty members.

Student Publication

Research and Applications: Embedded System (e-ISSN:2582-2993)

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ble Computer with Temperature and Lidar Sensor

Ajbale, Ayushi Moon, Prajwal Sawarkar, Tanushree Gaikwad, Rahila Anjum, Bhuneshwari Govarka, Heena B. Kachhela

computer is very necessary in everyone's life. Computer is an electronic device which makes human's work easier. From student to old person, everyone such as to develop an application, to make a document which takes a help of a computer to complete it. Similarly, mobile also makes work easier but software applications computer has we can't access it in a mobile and not allowed to use. To complete a task or any work, we can't access every software in a also for that we need a computer. But we can't take a computer everywhere for that laptop has developed which is movable. Increasing technology reduces computer from stable to movable such as laptop. But laptops are bulky and needs a bag to carry it. To overcome this problem, we developed a device Computer with temperature and lidar sensor" inspired from wearable computing technology. "Wearable Computer with temperature and lidar sensor" is a evice which acts as a computer, detects the temperature of the person who wears it and shows a distance between a person and an object. In day to day life, lays an important role. For that we developed a device "Wearable Computer with temperature and lidar sensor "

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Student Publication in International Journal from TGPCET

Students from the **Department of Computer Science and Engineering**, TGPCET, have made the institute proud with their recent research paper publication in the "Research and Applications: Embedded System" (e-ISSN: 2582-2993) journal.

The paper titled "Wearable Computer with Temperature and Lidar Sensor" was authored by **Shubham Ajbale**, **Ayushi Moon**, **Prajwal Sawarkar**, **Tanushree Gaikwad**, **Rahila Anjum**, **Bhuneshwari Govarka**, and **Heena B. Kachela**. It focuses on the development of a smart wearable device that functions as a portable computer capable of measuring body temperature and detecting distance using Lidar sensors.

This achievement highlights the students' dedication to innovation and practical problem-solving in embedded systems and wearable computing.

Faculty Publication

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ble Computer with Temperature and Lidar Sensor

Ajbale, Ayushi Moon, Prajwal Sawarkar, Tanushree Gaikwad, Rahila Anjum, Bhuneshwari Govarka, Heena B. Kachhela

computer is very necessary in everyone's life. Computer is an electronic device which makes human's work easier. From student to old person, everyone such as to develop an application, to make a document which takes a help of a computer to complete it. Similarly, mobile also makes work easier but oftware applications computer has we can't access it in a mobile and not allowed to use. To complete a task or any work, we can't access every software in a I also for that we need a computer. But we can't take a computer everywhere for that laptop has developed which is movable. Increasing technology reduces computer from stable to movable such as laptop. But laptops are bulky and needs a bag to carry it. To overcome this problem, we developed a device Computer with temperature and lidar sensor" inspired from wearable computing technology. "Wearable Computer with temperature and lidar sensor" is a evice which acts as a computer, detects the temperature of the person who wears it and shows a distance between a person and an object. In day to day life, lays an important role. For that we developed a device "Wearable Computer with temperature and lidar sensor "

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Faculty Publication in International Journal

Ms. Heena B. Kachela, faculty member of the Department of Computer Science and Engineering, TGPCET, has co-authored a research paper titled "Wearable Computer with Temperature and Lidar Sensor", published in the reputed international journal "Research and Applications: Embedded System" (e-ISSN: 2582-2993), Volume 6, Issue 2 (2023).

The research focuses on the development of a smart wearable device that integrates temperature monitoring and Lidar-based distance measurement. The device is designed to function as a compact, portable computing system, offering practical applications in health and safety monitoring.

This publication reflects the department's commitment to innovation, research, and technological advancement, and marks a proud moment for TGPCET.

NSS Activity

Blood Donation Camp Organized at TGPCET

The Department of Computer Science and Engineering at TGPCET organized a Blood Donation Camp to promote social awareness and humanitarian values among students. The camp saw enthusiastic participation from students, faculty, and staff members.

In collaboration with a reputed local blood bank, the camp ensured safe and hygienic blood collection under expert medical supervision. Several units of blood were donated during the drive, which will be used to help patients in need at local hospitals.

The initiative was a reflection of TGPCET's commitment to community welfare and instilling a sense of social responsibility in its students.

Alumni Meet

Alumni Meet Held at TGPCET Polytechnic

The TGPCET Polytechnic recently organized an Alumni Meet to reconnect with former students and celebrate their achievements. The event witnessed enthusiastic participation from alumni of various batches, who returned to their alma mater to share memories and professional experiences.

The meet featured welcome speeches, interactive sessions, and cultural performances, creating a vibrant and nostalgic atmosphere. Alumni also shared their career journeys and offered guidance to current students.

The event strengthened the bond between past and present students, reflecting the institute's commitment to building a strong and supportive alumni network.

Poster Competition

ZEST 2K23 – Poster Competition for Polytechnic Students at TGPCET

TGPCET successfully organized ZEST 2K23, an engaging poster competition exclusively for polytechnic students. The event aimed to inspire creativity and innovative thinking among young minds. Students from various branches enthusiastically participated and showcased their ideas through visually compelling posters. The competition provided a vibrant platform to express technical knowledge with artistic flair, promoting both creativity and communication skills.

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