



NAAC Accredited

Vidarbha Bahu-uddeshiya Shikshan Sanstha's

TULSIRAMJI GAIKWAD-PATIL
College of Engineering & Technology

DTE
CODE
4151



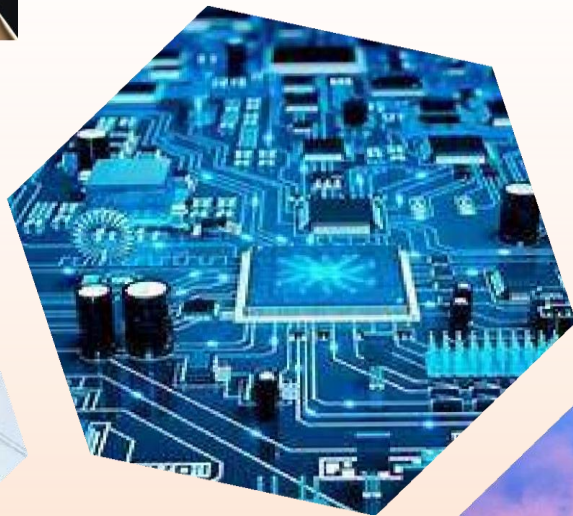
— An Autonomous Institute —

Department of Electronics & Communication Engineering

"Where IDEAS flow without RESISTANCE"



News Letter
Session 2023-24



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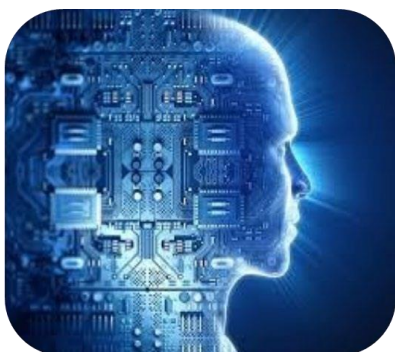
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About TGPCET

Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET) was established in the year 2007 by Vidarbha Bahu-uddeshiya Shikshan Sanstha (VBSS), a registered society. It is a self-financed Private Engineering College, which is affiliated to Rashtrasant Tukadoji Maharaj Nagpur University (RTMNU) Nagpur 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. The Institute is Accredited with A+ (3.32 CGPA) by NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC) and NBA. An Autonomous Institute affiliated to RTM Nagpur University, Nagpur

Vision

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



Mission

- ✚ 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 inculcating knowledge and profession as work practices.



Vision(Dept.)



- ✚ To impart quality higher education in the field of Electronics and Communication Engineering for catering the needs of society in coherence with current technology.

Mission (Dept.)



- ✚ To impart quality technical education through effective teaching learning processes.
- ✚ To strengthen industry institute interaction to meet the challenges of Industry and Society.
- ✚ To provide research conducive environment to students forencouraging innovative skills.
- ✚ To ensure overall development of students and staff members by inculcating knowledge and professional ethics as a part of lifelong learning.

Dear Readers,

I am glad to present to you the News Letter of ELECTRONICS & COMMUNICATION ENGINEERING DEPT.



Dr Sanjay Asutkar

In 2007-08, our Electronics and Communication Engineering department began with an intake of 60 students. Our faculty boasts rich experience and top-notch qualifications, using innovative teaching methodologies.

Our research and training revolve around cutting-edge labs like VSAT, Atmel, μ P & μ C, and SATCOM, while a specialized computing facility aids in executing project work and departmental design tasks.

Our infrastructure shines with a state-of-the-art Microwave & Radar Engineering Lab alongside well-equipped facilities covering Electronic Devices and Circuits, Communication Engineering, Digital Signal Processing, Microprocessor and Microcontroller, and Digital Electronics.

Our commitment extends beyond academics through our Industry Institute Partnership Cell (IIPC), developing strong connections with departments, agencies, and industries nationwide. We collaborate closely with industries, facilitating student placements and training, supporting R&D, sponsored projects, and hosting industrial experts for guest lectures. Our aim is to align our curriculum with industry demands and foster an environment of academic-industry synergy.

Dr. Sanjay Asutkar

Editorial Committee



Prof. Mayuri Harde
Faculty Coordinator



Ms. Nayan Saktel
Student Co-ordinator
(4th Year)



Mr. Pratik Patle
Student Co-ordinator
(4th Year)



Mr. Ashish Hajare
Student Co-ordinator
(3rd Year)



Ms. Gayatri Ghode
Student Co-ordinator
(2ndYear)

PEO's of Department

PEO's:

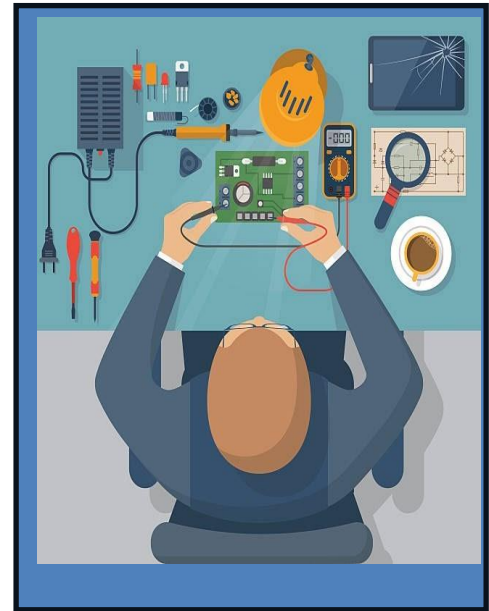
PEO 1: Students will apply basic fundamentals in mathematics, physics and electronic engineering discipline to build sound foundations.

PEO 2: Students will design, analyze and solve engineering problems to develop them as the professional leaders in the field of Electronics & communication Engineering.

PEO 3: Students will get exposure by providing technical training to execute the multidisciplinary projects as a team.

PEO 4: Students will channelize their knowledge through lifelong learning to assist in the development of the society.

PEO 5: Students will acquire work ethics and concern for society.



Faculty Achievement



Student Achievement

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TULSIRAMJI GAIKWAD-PATIL
 College of Engineering & Technology
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GAIKWAD-PATIL GROUP OF INSTITUTIONS

for **Swayam** **NPTEL**

Congratulations!
NPTEL Online Certification
 Department of
Electronics & Communication Engineering
Introduction to Internet of Things
Elite

Successfully Completed

 Mr. Aditya Joshi 69 %	 Mr. Sagar Manik 65 %
 Mr. Prasanna Poljoo 56 %	 Mr. Mrunal Padole 54 %

9922966176 / 9763711372 NH-7, Mohgaon, Wardha Road, Nagpur - 441108

B.Tech | B.Arch | M.Tech | MBA | MCA | Diploma | D. Pharm | B. Pharm | B.Sc Nursing | Physiotherapy

भारतीय सूचना प्रौद्योगिकी संस्थान, नागपुर
Indian Institute of Information Technology, Nagpur
 An Institution of National Importance By An Act of Parliament

CERTIFICATE OF PARTICIPATION
 This is to certify that

Mr/Ms Ashish Hajare
 Has successfully completed a Three Day's Workshop on
Internet of Things (IoT) – A Prototype Designing using Embedded Development Boards

Organized by
 Department of Electronics and Communications Engineering
 &
 Department of Computer Science and Engineering
 Under
 Institution's Innovation Council (IIC)
 On 6th to 17th May 2023

Dr. Mayuri Digalwar, Dept of CSE, IITN
 Dr. Rashmi Pandhare, Dept of ECE, IITN
 Dr. Aatish Daryapurkar, Convener-IIC, IITN
 Dr. Mayur Parate, Associate Dean, IITN
 Dr. O. G. Kakde, Director, IITN

NU INTELLIGENCE PRIVATE LIMITED
 Second Floor, "Planet Kidzee" Building, Plot No. 18, Renghe layout
 Gajanan Mandir Road, Trimurti Nagar, Nagpur 440022

This Certificate is awarded to Mr/Ms. Ashish Dinkar Hajare or Tulsiramji GaiKWad - Patil College of Engineering & Technology. He/She has completed Industrial Training/ Workshop on Internet of Things conducted from Date 21/7/23 to 22/7/23 with distinction. NU Intelligence Private Limited wishes good luck for all future endeavors.

Faculty/Instructor
 Director

NIPAM
 NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION
 on July 28, 2023
 Azadi Ka Amrit Mahotsav
 Organized by Intellectual Property Office, India

This is to certify that **MR. ASHISH HAJARE** of **TULSIRAMJI GAIKWAD PATIL COLLEGE OF ENGINEERING** has successfully participated in IP Awareness Training program under the National Intellectual Property Awareness Mission on July 28, 2023.

Certificate of Participation
 This Certificate is presented to **ASHISH HAJARE**
 For his/her active and honorable participation during the completion of a Three Day Workshop on **INDUSTRIAL IoT, Automation and AI - IOT** held on July 21, 2023, Organized by Department of Electronics and Computer Technology, IITN, Nagpur, Maharashtra.

NPTEL Online Certification
 (Funded by the MoE, Govt. of India)

This certificate is awarded to **SAGAR DAVID MANIK** for successfully completing the course **Introduction to Internet of Things** with a consolidated score of **65 %**

Online Assignments	24.13/25	Proctored Exam	40.63/75
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Total number of candidates certified in this course: 14770

Jan-Apr 2023 (12 week course)
 Prof. Debajit Chakraborty, Convener, NPTEL, IIT Kharagpur

Indian Institute of Technology Kharagpur
 Roll No: NPTEL23CS51514270941
 To validate the certificate
 No. of credits recommended: 3 or 4



IC-DTSDG-22
 Certificate
 This is to certify that Prof. / Mr. / Ms. **Komal Malwade** of **Tulsiramji GaiKWad Patil College of Engg** participated / presented a paper titled **"IoT Based GRID Out of System"** in the 9th International Conference on Disruptive Technology for achieving Sustainable Development Goals. His / Her participation in the Conference is appreciated.

IRJETS
 International Research Journal Of Modernization in Engineering Technology and Science
 (Peer-Reviewed, Open Access, Fully Refereed International Journal)

Issue: 04 (2023) 0301-041
 Date: 28/04/2023

This is to certify that author **Nikhil Pawar** with paper ID **IRJETS0400201841** has published a paper entitled **"IoT Based Cool Mine Safety Monitoring and Alerting System"** in International Research Journal Of Modernization In Engineering Technology And Science (IRJET), Volume 05, Issue 04, April 2023.


A. Dhanraj, Editor in Chief
 We Wish For Your Better Future www.irjournals.com

Student Achievement

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Congratulations!



Mr. Prasanna Pojgey
Second Position

B. Tech (2nd Year) Electronics & Communication Engineering

Represented Maharashtra State and secured
Second Position at 8th National Championship organized by National Shotokan Karate Association of India
 27th & 28th May 2023 (Goa)

We are very proud of you!

B.Tech | B.Arch | M.Tech | MBA | MCA | Diploma | D. Pharm | B. Pharm | B.Sc Nursing | Physiotherapy



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LOGO LADDER 2K23
CERTIFICATE
 OF ACHIEVEMENT

This is to certify that Mr./Ms. NIKHIL TEMBHURNE of Department ECE has secured First position in "LOGO LADDER"-2K23 Competition held on 22nd May 2023, organized by Students' Council Cell, TGPCET. His/her performance in the event is highly appreciated.

Dr. Bhavna Deshpande
 Dean Students' Council

Dr. Suresh Salankar
 Director Academics

Prof. Pragati Patil
 Vice-Principal

12/2/23, 3:15 PM SWAYAM JULY SEMESTER 2023

Ministry of Education
 Government of India

NATIONAL TESTING AGENCY

Study Webs of Active-Learning for Young Aspiring Minds (SWAYAM) JANUARY (8 COURSES) JULY SEMESTER 2023
Score Card for Final Proctored Exam

Roll Number :	MR17010351	Application Number :	2315110016524
Candidate's Name :	Ekramul Serajul Haque	Date of Birth :	20-11-1986
Category :	GENERAL	Nationality :	Indian
Gender :	Male	Person with Disability (PwD) :	No

COURSE DETAILS

Course Code	nou23-b05
Course Name	Biomedical Instrumentation & Sensors
Mode of Exam	CBT

IRJMETS
International Research Journal Of Modernization in Engineering Technology and Science
 (Peer-Reviewed, Open Access, Fully Refereed International Journal)
 e-ISSN: 2582-5208 Date: 30/04/2023

Ref: IRJMETS/Certificate/Volume 05/Issue 04/50400201841

Certificate of Publication

This is to certify that author "Mohnish Sunkinwar" with paper ID "IRJMETS50400205848" has published a paper entitled "INTERNET OF THING (IOT) BASED GRID CUTOFF SYSTEM" in International Research Journal Of Modernization In Engineering Technology And Science (IRJMETS), Volume 05, Issue 04, April 2023

A. Desai
 Editor in Chief

We Wish For Your Better Future
 www.irjmets.com

Google | issuu | Academia.edu | doi | Crossref

Elite
NPTel Online Certification
 (Funded by the MoE, Govt. of India)

This certificate is awarded to **SHUBHAM SOPAN NIKHADE** for successfully completing the course

Digital Circuits

with a consolidated score of **60** %

Online Assignments	24.13/25	Proctored Exam	36/75
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Total number of candidates certified in this course: 2626

Jul-Oct 2023
 (12 week course)

Prof. Haimanti Banerji
 Coordinator, NPTEL
 IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL23EE1185542801486 To verify the certificate No. of credits recommended: 3 or 4

Industrial Visit

Visit at MAHA METRO BHAWAN

Department of Electronics & Communications Engineering has arranged Industrial visit for Fourth Sem & Seventh Semester students to MAHA METRO BHAWAN, Nagpur under the *IIPC, ISTE and IE(I)*, Students Chapter on 07.07.2023

Outcome of the visit:

1. Students were able to understand the operation of MAHA METRO RAIL using Different unit.
2. Summarize the various types of operational units and Automation
3. Understand the concept of operation automatic traffic control system

Program objective achieved PO1, PO6, PO7, PO8, PO9, PO10, PO12

Visit was well coordinated by Mr. Sandeep Thakre (Course Co-Ordinator)

Sharing some glimpses of the visit.



'टीजीपीसीईटी'च्या विद्यार्थ्यांची मेट्रो भवनला भेट

लोकसत्ता प्रतिनिधी

नागपूर : तुळशीरामजी गावकवाड पाटील अभियांत्रिकी आणि तंत्रज्ञान महाविद्यालयाच्या इलेक्ट्रॉनिक्स आणि कम्प्युटेशन विभागाच्या विद्यार्थ्यांनी मेट्रो भवन, व्हीआयपी रोड नागपुरला भेट दिली.

महामेट्रोचे जनसंपर्क व्यवस्थापक अखिलेश हळदये आणि रश्मी मदनकर यांनी मेट्रो भवनच्या पायाभूत सुविधा आणि तांत्रिक कार्यक्षमतेबाबत सविस्तर माहिती दिली. या औद्योगिक भेटाला ४७ विद्यार्थी उपस्थित होते. कर्मचाऱ्यांनी डबल डेकर ब्रिज, मनीषनगर अंडरपास, फोर लेव्हल ट्रान्सपोर्टेशन कॉरिडोर आणि मेट्रो स्टेशनची ठिकाणे आणि पुरवलेल्या सुविधांबद्दल चर्चा केली.

महामेट्रो हा पहिला हरित मेट्रो प्रकल्प आहे. महामेट्रोचा आगामी टप्पा दुसरा प्रकल्प प्रक्रियेत आहे. कर्मचाऱ्यांनी विद्यार्थ्यांना अरिंज लाईन आणि ब्लू लाईन आणि त्यांच्या स्थानकांची माहिती, प्रत्येक स्थानकावर उपलब्ध असलेल्या सुविधा याविषयी समजावून सांगितले. ही औद्योगिक भेट प्रा. रोहिणी पोची आणि प्रा. संदीप टाकरे यांच्या मार्गदर्शनाखाली आयोजित करण्यात आली होती.

Industrial Visit

Maharashtra Remote Sensing Application Center (MRSAC) Visit:

Department of Electronics & Communications Engineering arranged Industrial visit for Third Year & Second Year students to Maharashtra Remote Sensing Application Center (MRSAC) Near Ambazari, Nagpur under the ISTE, IE(I) & IETE, Students Chapter on 27.09.2023

Outcome of the visit:

1. Students were able to understand the process of Remote Sensing.
2. Summarize the method of Image Processing & Satellite Imaging.
3. Understand the concept of Space Technology.
4. Various Application of Remote Sensing.

Program objective achieved PO1, PO6, PO7, PO8, PO9, PO10, PO12

Visit was well Co-ordinated by Mr. Sandeep Thakre, Ms. Pallavi Rokade (Course Co-ordinator)



•Visit to HORIBA INDIA PVT.LTD.

The Department of Electronics and Communication organized a riveting Industrial Visit at HORIBA India Pvt. Ltd. in MIDC, Butibori Industrial Area, Maharashtra on 01 December 2023.

Key Insights: Mr. Aniket Khandaitkar and his team enlightened our students about HORIBA's history, vision, mission, and operations.

In-depth insights into

1. Innovative hematology solutions
2. Manufacturing processes
3. Hemostasis analyzers
4. blood testing equipment and
5. Automation in Biomedical field left our students awe-inspire Biomedical Marvels: Witnessed firsthand the intricate processes behind the creation of various Biomedical products.

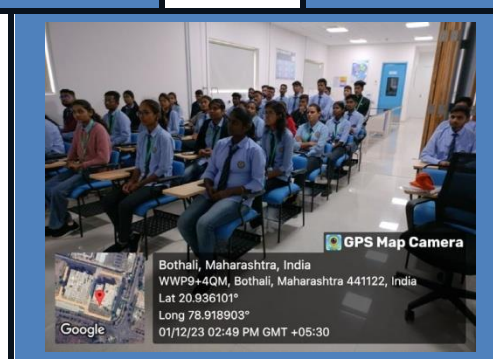
Coordinated By:

Prof. Rohini Pocchi and Prof. Sandeep Thakre

Program Outcomes Achieved:

PO1, PO7, PO6 PO8, PO9, PO10, PO12.

Glimpses of the Day:



Expert Lecture

"Expert Lecture on PLC & SCADA"

Date: 10.10.23

Department of Electronics & Communication Engineering has organized Expert Lecture on *Programmable Logic Controller (PLC) & Supervisory Control & Data Acquisition” by Mr. Shyam Chandurkar Sr. Engineer MahagencoKoradi Thermal Power Station, Nagpur for III & V sem students of ECE Department.

He has discussed about

1. Control System, 2.Data Acquisition , 3.Advance Monitoring System.
4. Basic Programming for PLC.

Total 67 students have participated in expert lecture. Today's lecture helped in mapping program

Outcomes of lecture PO1, PO2, PO3, PO4, PO5, PO6, PO12

sharing some glimpses



Events

STUDENT FORUM “INVICTUS” RE-INSTALLATION - 2023

Under Forum Reinstallation ' INVICTUS'

Date: 07.11.23

Department of Electronics & Communication Engineering has organized Expert Lecture on * “Recent Trends in Cloud Computing” by Mr. Shailesh Karare Technology Lead, Infosys Nagpur for III, V & VII Sem students of ECE Department*also Felicitated the RTMNU and Autonomous Examination Toppers

He has discussed about

- 1.Basics of Cloud Data.,
- 2.Benifits of Cloud Computing.
- 3.Cloud Models (Deployment & Service).
- 4.Cloud Architecture.
- 5.Job opportunities in Cloud Computing.

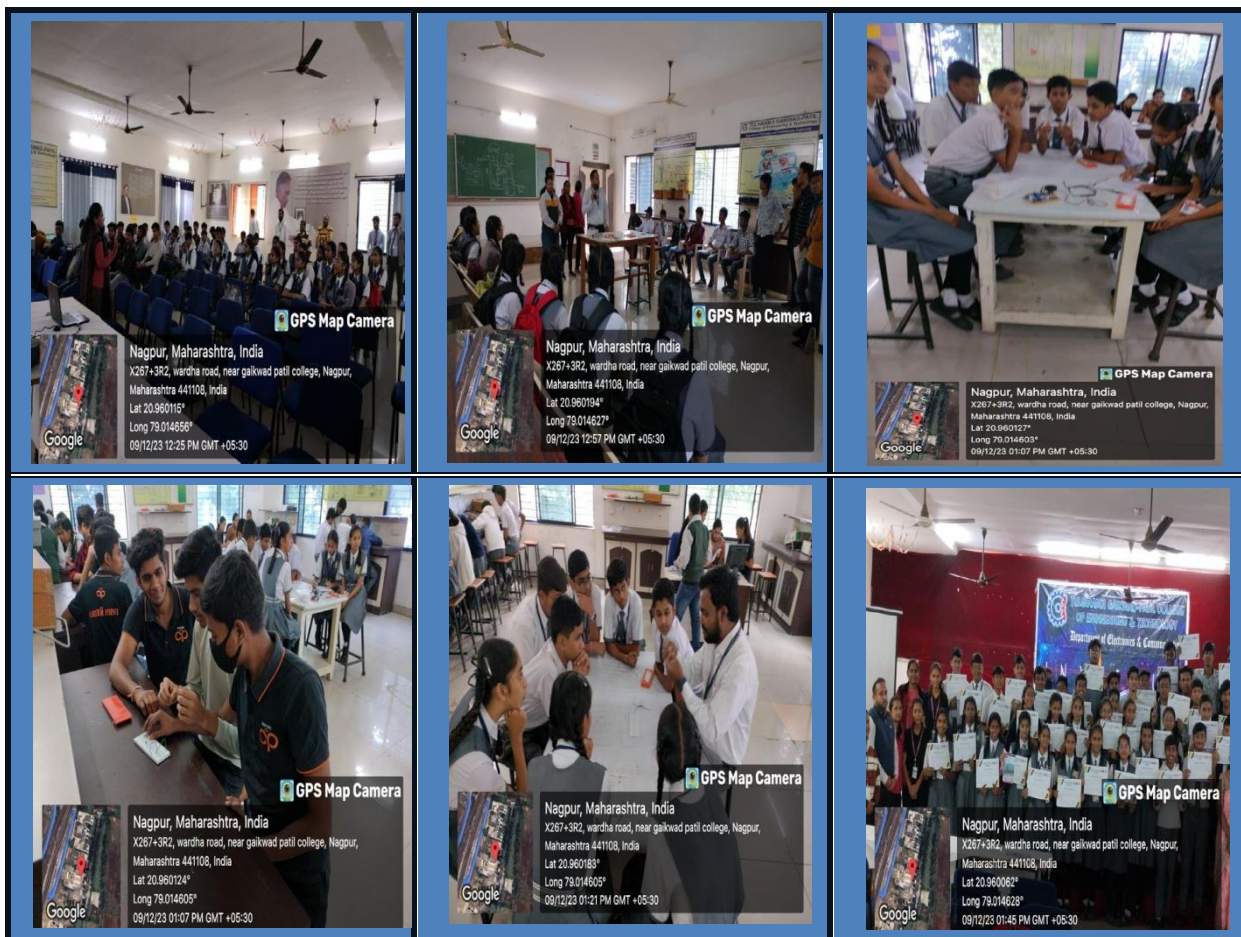
Total 80 students have participated in expert lecture. Today's lecture helped in mapping program

Outcomes of Lecture PO1, PO2, PO3, PO4, PO5, PO6, PO12



MANTHAN WORKSHOP:

The **MANTHAN** workshop for Junior-grade science students focused on micro projects, particularly water level indicators. Participants engaged in hands-on activities, learning the intricacies of water level measurement and project design. The workshop fostered creativity and problem-solving skills, enabling students to conceptualize, build, and present their micro projects. The resized water level indicators showcased innovative designs and practical applications. This initiative not only enriched students' scientific understanding but also encouraged a culture of experimentation and collaboration. The **MANTHAN** workshop successfully empowered 12th-grade students to apply theoretical knowledge to real-world scenarios, preparing them for future scientific endeavors.



Placement

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Congratulations!
On the Successful Placement in
CapitalVia®
Investment Advisor



PRATIK PATLE
ECE

HARSHAL BAWANE
ECE



B.Arch | B.Tech | M.Tech | MBA | MCA | Polytechnic | D.Arch | B. Pharm | D. Pharm | BAMS | B.Sc Nursing* | Physiotherapy

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Congratulations!
On the Successful Placement in
ESAF
ESAF SMALL FINANCE BANK
Joy of Banking



Ms. Nayan Saktel
Electronics & Communication Engineering

Mr. Ritik Deotare
Electronics & Communication Engineering



B.Arch | B.Tech | M.Tech | MBA | MCA | Polytechnic | D.Arch | B. Pharm | D. Pharm | BAMS | B.Sc Nursing* | Physiotherapy

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Congratulations!
On receiving Campus Placement
2023-2024 Batch



Ms. Shyamal Patil
Business Development Associate
Electronics & Communication Engineering
IntelliPaat Software Solutions Pvt Ltd, Bangalore
7.25 LPA



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

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Congratulations!

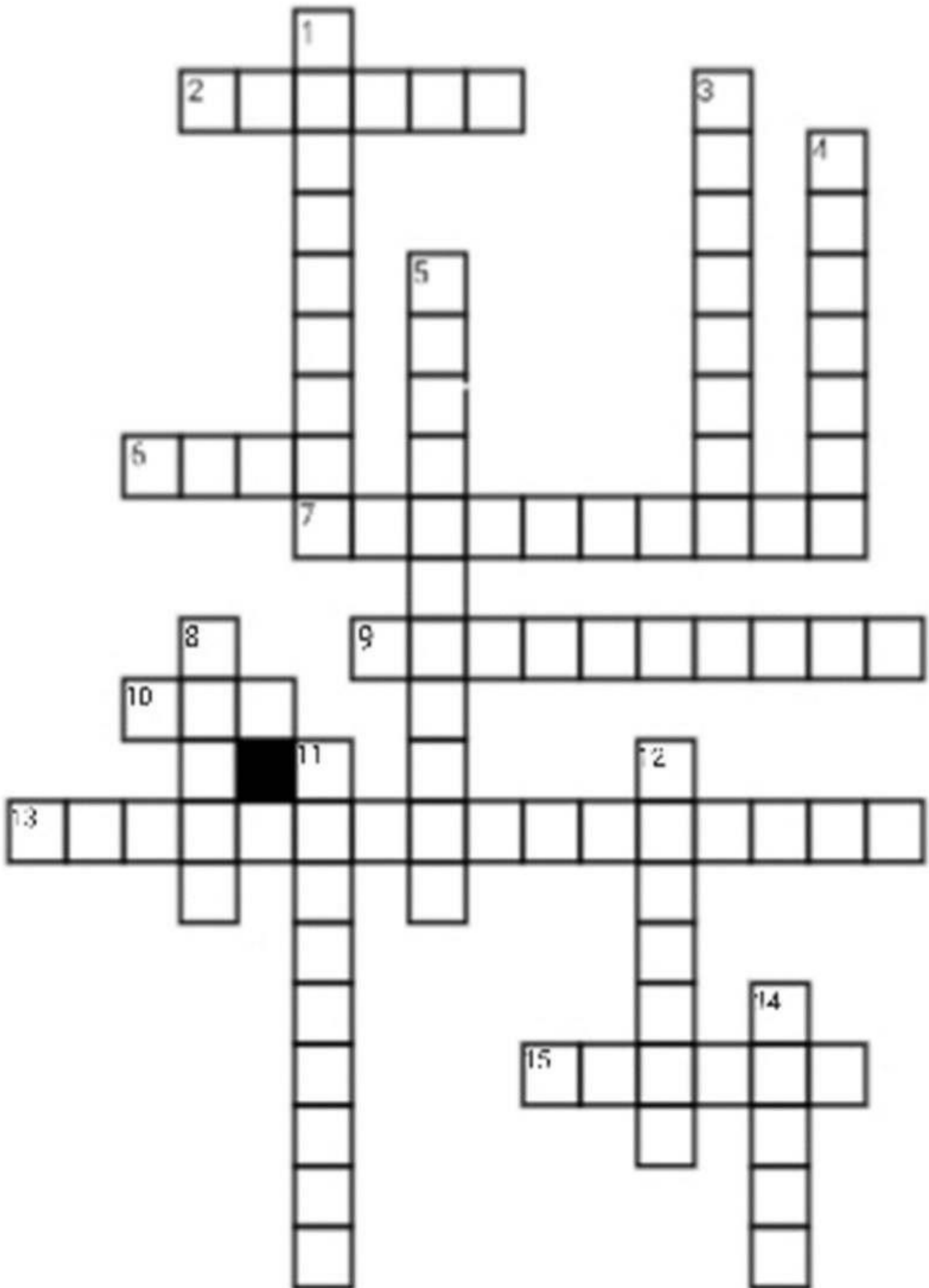






B.Arch | B.Tech | M.Tech | MBA | MCA | Polytechnic | D.Arch | B. Pharm | D. Pharm | BAMS | B.Sc Nursing* | Physiotherapy

Games



Games

Down:

- 1) Electrical element which stores energy
- 3) A method of charging in which two Bodies are charged by rubbing
- 4) Another term for potential difference
- 5) can convert AC at low voltage to high voltage and vice versa
- 8) SI unit of self-inductance
- 11) Converts AC to DC
- 12) An elemental semiconductor
- 14) Converts electrical energy into mechanical energy

Across:

- 2) the fundamental quantity of electricity
- 6) electric field inside a uniformly charged thin spherical shell
- 7) opposes flow of current
- 9) materials which allow current to flow easily
- 10) semiconductor element which emits light when current flow through it
- 13) type of electricity which uses water for power generation
- 15) a positively charged particle

Answers:-
DOWN
1) CAPACITOR
3) FRICTION
4) VOLTAGE
5) TRANSFORMER
8) HENRY
11) RECTIFIER
12) SILICON
14) MOTOR

ACROSS
2) CHARGE
6) ZERO
7) RESISTANCE
9) CONDUCTORS
10) LED
13) HYDROELECTRICITY
15) PROTON

Art Corner



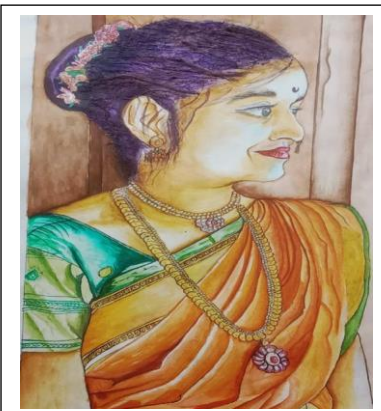
Nikhil Tembhurne
4th Sem



Nikhil Tembhurne
4th Sem



Riya Chauvhan
4th Sem



Tejas Rokade
4th Sem



Tejas Rokade
4th Sem



**Department of Electronics & Communication
Engineering**