RELISLETTER

Academic Year: 2023-2024



Late Shri. Vishnu Waman Thakur Charitable Trust's VIVA INSTITUTE OF TECHNOLOGY

Shirgaon, Virar(E), Dist-Palghar, Taluka: Vasai, Maharastra-401305

DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING



https://www.viva-technology.org

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ABOUT THE DEPARTMENT

Electronics and Telecommunication is a diverse and dynamic field of engineering that intersects with electronics, civil, structural, and electrical engineering. This branch offers a broad scope across the public, private, and government sectors, making telecom engineers vital in delivering telephone and high-speed data services to customers.

its versatile nature, a degree in Electronics to and Due Telecommunication opens opportunities in various fields such as Computer Engineering, Information Technology. and Telecommunication Engineering. Our objective is to nurture students who are proficient in all these areas. To support this, our laboratories are equipped with advanced computers, enabling the implementation of virtual labs. This setup provides students with comprehensive exposure to computers, Internet Technology, and the latest advancements in the field.

Additionally, the Department hosts the IETE Student Forum (ISF), which serves as an ideal platform for students to showcase their skills and foster their overall personality and technical development. Through the ISF, students can engage in various activities that enhance their professional and personal growth, preparing them for successful careers in Electronics and Telecommunication.

VISION

Providing quality technical education to develop professionally competent and ethically strong Electronics and Telecommunication Engineers.

MISSION

- 1. To achieve academic excellence by creating the right academic ambience, that will enable students to pursue higher studies and career in research.
- 2. To provide an effective teaching-learning environment.
- 3. To promote Industry- Institution Interaction.

Programme Educational Objectives (PEOs)

The Bachelor of Engineering in Electronics and Telecommunication program has following educational objectives. These objectives are the long-term career goals that we set for our students. Our program prepares students to achieve these objectives.

- 1. Identify, analyze and formulate problems to offer appropriate design solutions that are technically superior, economically feasible, environmentally compatible and socially acceptable.
- 2. To create the necessary academic ambience that nurtures the student ability to cope up with situations that emerges in the professional context with confidence through lifelong learning.
- 3. To inculcate professional and ethical attitude, teamwork skills, good leadership qualities and commitment to social responsibilities.

PROGRAMME LEARNING OUTCOMES

The outcomes of the program objectives are:

Engineering Knowledge: The ability to apply knowledge of mathematics, engineering and science to solve complex engineering problems.

Problem Analysis: The ability to identify, formulate and analyze engineering problems.

Design/development of Solutions: The ability to design a system, component, or process to meet desired needs within realistic constraints such as environmental, social, ethical.

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.

Modern Tool usage: An ability to use the techniques, skills, and modern engineering tools necessary for telecom engineering practice.

The Engineer and Society: Ability to be aware of social, health, safety, cultural, legal issues and responsibilities relevant to professional engineering practice.

Environment and Sustainability: The broad education necessary to understand the impact of engineering solutions in environmental and societal context.

Ethics: Apply professional ethics to engineering practices.

Individual and Team Work: The ability to function in multi-disciplinary teams by involving in technical activities.

Communication: The ability to comprehend, present and document effectively.

Project Management and Finance: Ability to apply engineering and management principles.

Life-long Learning: The ability to engage in lifelong learning with advances in technology.

PROGRAM SPECIFIC OUTCOME

PSO1: Professional & Problem-Solving Skills:

An ability to understand and analyze the basic concepts in Electronics & Communication Engineering and to apply them to various areas, like Electronics, Communications, Signal processing, VLSI, Embedded systems, Microwaves etc.

PSO2: Successful Career and Entrepreneurship:

An understanding of social-awareness and ethical Responsibility to have a successful career and to endure passion for real-world applications using optimum resources as an entrepreneur.



Principal's Message

It is a pleasure to speak with all of you through this newsletter. We can all take pride in the fact that each one of us has contributed to the present-day glory and growth of our college. This newsletter will serve as an interface between the Institute

and the outside world, providing information about academic activities and sharing details about recent co-curricular events.

I am delighted to note that our faculty members have taken various initiatives to disseminate knowledge by organizing conferences, training programs, and workshops. Expert lectures are also held regularly by various departments to keep abreast of the latest developments in science and technology.

VIVA Institute of Technology, established in 2009, nurtures a unique system of education aimed at creating dynamic leaders in the corporate sector, entrepreneurs, academicians, researchers, and professionals who contribute to the development of society and the nation at large. Our aesthetically designed and elegantly built campus is furnished with state-of-the-art equipment and facilities. Here, education goes beyond the four-year B.E. degree course; we strive to create a platform for students to realize their dreams, enhance their cognition, sharpen their competence, and develop a well-rounded personality.

HOD's Message

The motto of our department, "**Nothing can we achieve without genuine effort**", perfectly encapsulates our ethos and approach. As the Head of the Department of Electronics and Telecommunication



Engineering, it is my privilege to oversee one of the pioneering departments of this institution. We are committed to providing our students with an educational experience that combines intellectual rigor with cross-disciplinary breadth in a structured, student-centered environment.

The Department of Electronics and Telecommunications Engineering is dedicated to training students in cutting-edge areas of electronics, such as solid-state circuits, VLSI, electronic controls, and communications engineering, which covers multiple access technology, optical fibers, wireless communication, signal and image processing, mobile communication, and microwave engineering. A unique aspect of our department is the emphasis on learning from published materials from journals and generating publications of international quality. We offer opportunities for students to explore their interests in diverse fields such as microprocessor and microcontroller-based applications, image and video processing, vLSI, wireless networking, embedded systems, robotics, data compression, signal processing, and both analog and digital communication.

It is indeed my great pleasure to announce that our department is publishing a newsletter that details every aspect of activities and events held during the academic session 2023-2024. This newsletter aims to showcase the various proceedings, functions, and happenings within the department.

I congratulate the team that has put forth tremendous efforts in producing this newsletter. Your hard work provides a valuable window into the vibrant life of our department and serves as an inspiration to us all.

Memorandum of Understanding (MoU)

This memorandum of understanding (MOU) is made and will remain effective between **INDUSTRIAL ENGINEERING SYNDICATE (INENSY)** Mumbai, represented by **Mrs. Pradnya Bhutada**, HRD-Manager Mumbai and VIVA Institute of Technology, Virar (East), Palghar, represented by Principal and H.O.D. of Department of Electronics and Telecommunication Engineering (EXTC).



ISO 9001 / IATF 16949 Certified Company

INENSY has a comprehensive portfolio of automotive switches for dashboards, engines, safety applications, illumination, automotive gadgets, automobile attachments and implements. High quality and zero defect products lies at the core of everything INENSY does. This sharp focus on quality and cost effective products has earned INENSY an impressive kitty of clients which includes leading OEMs of the country and overseas, to name a few – Mahindra & Mahindra Ltd., Tractor and Farm Equipment Ltd. (TAFE), John Deere Ltd., Bharat Benz India Pvt. Ltd., Ashok Leyland Ltd, Escorts Ltd and international Tractor Itd (Sonalika) INDUSTRIAL ENGINEERING SYNDICATE (INENSY) has the capability/flexibility and inherent strength to provide that extra bit in terms of satisfying each customer's special requirements. INDUSTRIAL ENGINEERING SYNDICATE (INENSY) has its corporate office located at Andheri and Vasai.



The organization is ISO 9001 / IATF 16949 and TUV certified. For INENSY Zero Defect Quality, timely delivery, cost effective solutions, sound infrastructure and continual product improvement are hygiene factors and the pillars on which the organization is built.

The main objective of this MOU is to co-operate for providing multifaceted industry-institute interactive partnership which will benefit the undergraduate and post-graduate students, especially the students from Department of Electronics and Telecommunication Engineering. In addition, this partnership will enable VIVA Institute of Technology to produce skilled and industry ready professionals.

Memorandum of Understanding (MoU)



This memorandum of understanding (MOU) is made and will remain effective between **Precitech Weighing System, Vasai** represented by Mr. Dhilen Vora Proprietor and VIVA Institute of Technology, Virar (East), Palghar, represented by Principal and H.O.D. of Electronics and Telecommunication Engineering Department of VIVA Institute of Technology, Virar.

"Preci-Tech Weighing Systems" was established in the year 1987, having vision to manufacture Electronic Weighing Scales with complete indigenous technology (Make in India). With simple weighing alone have a wide range of testing machines like tensile, peeling (adhesive), spring, swelling, etc. In addition to that, also having filling machines, special controllers, filling and batching systems, online & static check weighing systems, etc.



The objective of the MOU is to co-operate for providing multifaceted industry-institute interactive partnership which will benefit the undergraduate students, especially the Electronics and Telecommunication Engineering students. In addition, this partnership will enable VIVA Institute of Technology to produce skilled and industry ready professionals.

OSCILLATIONS 2024 - CONVERGENCE

Convergence 2024 is an intercollegiate event which include different track as Major project, Minor project, Poster making and Reel making competition. Various colleges took part in the competition. Students of EXTC branch were competing in 4 fields of competition at VIVA Institute of Technology.

The major project competition was organized specially for the BE students who showcased their final major projects. In the minor project competition TE and SE students were competing. In poster making competition students showcased their projects in the form of attractive posters which provided information about their projects. Reel making competition was an interesting one and was judged on the basis of likes through department Instagram account and different parameters as per rules and regulations.

Indeed, it was an amazing event where different projects related to different topics were at display like robots, IOT based, drones, and software based systems. The event ended with the deserving projects winning exciting cash prizes.

Summary of OSCILLATIONS 2024

Major Project Competition: 8 Groups Participated Minor Project Competition: 13 Groups Participated Poster Competition: 14 Groups Participated Reel Competition: 4 Groups Participated

No of students participated: 66

Category Major Project









Category Minor Project









Category Poster Competition







Reel Competition





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SHORT TERM TRAINING PROGRAM

University of Mumbai and ISTE Approved One Week Short Term Training Program on **"Foundations of Computing and Data Analysis"**

Organized by

Department of Electronics and Telecommunication Engineering and Department of Electrical Engineering

The objective of this one-week short term training program is to equip participants with essential knowledge and skills in computer science domains vital for their professional growth and academic enrichment. Through a comprehensive curriculum, participants will delve into foundational concepts of data analysis, networking fundamentals, cybersecurity, database management, and emerging technologies such as the Internet of Things (IoT). By fostering a supportive learning environment and providing hands-on experience, this program endeavors to cultivate a diverse community of educators equipped to navigate the evolving landscape of interdisciplinary engineering.

The program aims to bridge the gap between traditional engineering disciplines and modern computing paradigms, empowering participants to integrate computational techniques into their teaching, research, and industry collaborations effectively. Participants will emerge with a solid understanding of fundamental computer science principles and their applications.

Topics Covered in STTP on "Foundations of Computing and Data Analysis"

- Basics of Software Engineering
- Cybercrime and IT Act-2000
- Steganography & Wi-Fi security
- Data Analysis and Visualisation in Power Bi
- Computer Network Fundamentals
- Database Fundamentals
- Internet of Things (IoT) and Emerging Technologies

At the end of STTP participants are able to

- Knowledge of Software development life cycle and software design principles.
- In depth understanding of threats, vulnerabilities and common attacks.
- Learning tools and techniques applied to different network communication.

The University of Mumbai introduced revised curriculum which includes, programing and software simulation in different subjects. As new developments are introducing in industry day by day demanding expertise in the field of software coding and programing language, it was felt necessary that the teaching faculty also become competent in the said technology. With keeping this as an intension the University of Mumbai and ISTE approved STTP was conducted from 6th May to 13th May, 2024 in Electronics and Telecommunication Engineering Department, VIVA Institute of Technology.

Participants were the teaching faculty of Engineering College. Total of 16 faculty members participated in the One Week Short Term Training Program conducted.

On the last day of STTP institute had received the feedbacks from the participants that they have learned and enhanced their knowledge in this STTP and they would always want to attend this kind of STTP in this institute once again. The overall feedback of the Training Program was encouraging and was highly rated by the participants.



Day1: Basics of Software Computing - Dr. Brijesh Joshi

Day 2: Data Analysis and Visualization In Power Bi - Ms. Esha Prakash





Day 3: Cyber Security- Dr. Harshali Patil

Day 4: Computer Network Fundamentals- Mrs. Sonia Dubey





Day 5: IoT Emerging Technology and database Fundamentals- Mr. Nirav Patel



Day 6: Industrial Visit to EDBA Academy

GUEST LECTURES

1. How to Prepare for IT Job Opportunities by Mr. Shoeb Shaikh, Head - Learning & Development | Automation Test Engineer, TESTRIQ, Mira Road

Conducted on: 6th September 2023 **No. of Students attended:** 40





 Technology used for Industrial Automation by Mr. Asrar Khan, Instructor, Prolific Systems & Technologies Pvt Ltd

Conducted Online on: 18th October 2023 **No. of Students attended:** 30 3. **CNN Architecture** by **Dr. Maniroja M.Edinburgh,** Professor and Head of Department, Thadomal Sahani Institute of Technology

Conducted Online on: 16th October 2023 **No. of Students attended:** 35





4. Applications and Integration of Programming boards by Mrs. Poonam Gawade, Founder, Tantraniketan, Miraroad

Conducted Online on: 6th February 2024 **No. of Students attended:** 32



5. Caliberation and Testing by Mr. Aniket Kumbhar, Deputy Engineer, Altop Industries Limited

Conducted Online on: 6th February 2024 **No. of Students attended:** 35



6. **Cyber Security – The extension of networking** by Mr. Amit Redkar, Senior Network Associate, Tata Communication, BKC

Conducted Online on: 28th February 2024 **No. of Students attended:** 42



7. Basic Electronics, Startup, Applications and scope of EXTC Engineers by Mr. Rohit Pandey, Founder, Airfly

Conducted Online on: 28th February 2024



WORKSHOP

Hybrid Workshop on "Machine Learning and Deep Learning using MATLAB" was organized by the department on 27th and 28th July 2023.

Speaker: Mr Ankit Kumar, Application Engineer for MathWorks, Design Tech Pvt Ltd., Pune

The session started by introducing the basics of machine learning and deep learning. The workshop was conducted over a period of 2 days, with each day covering specific topics related to machine learning and deep learning. The content was structured as follows:



Day 1: Introduction to Machine Learning: Overview of supervised, unsupervised, and reinforcement learning, and their applications. Data Pre-processing: Techniques for data cleaning, feature engineering, and data transformation. Linear Regression: Theory and hands-on implementation of linear regression for predictive modeling. Logistic Regression: Application of logistic regression for binary classification problems.

Day 2: Introduction to Deep Learning: Explanation of neural networks and their components. Building Neural Networks: Hands-on practice on creating neural networks using a deep learning framework. Convolutional Neural Networks (CNNs): Understanding CNN architecture and image classification tasks. Recurrent Neural Networks (RNNs): Application of RNNs in natural language processing. Transfer Learning: Leveraging pre-trained models for specific tasks. Reinforcement Learning: Introduction to reinforcement learning and its applications.

The Workshop on "Machine Learning and Deep Learning using MATLAB" organized was a resounding success, achieving its intended objectives of introducing participants to the world of machine learning and deep learning. The content was well-structured, and the combination of lectures, hands-on exercises, case studies, and group projects ensured a comprehensive learning experience for all attendees.



INDUSTRIAL VISIT

1. Bureau of Indian Standard, Western Regional Lab (WRL), Marol MIDC

The Electronics and Telecommunication Engineering Department organized an Industrial Visit for the S.E & T.E students to BIS, Mumbai. All the students along with Mrs. Ashwini Haryan, Ms. Nutan Malekar, Mr. Kushal Suvarna and Mr. Pratik Parsewar visited to the Bureau of Indian Standard, Western Regional Lab (WRL), Marol MIDC, with an interest of linking the theoretical knowledge with the practical aspects as well as awareness about Hallmarking.

The Bureau of Indian Standards (BIS) is the national standards body of India, working under the aegis of the Ministry of Consumer Affairs, Food & Public Distribution, Government of India. BIS is responsible for the development, maintenance, and promotion of standards across various sectors to ensure quality, safety, and efficiency of products and services. Our industrial visit to the BIS Laboratory provided an insightful experience into the world of standardization and quality control.





During the visit, we toured four labs within the BIS facility, each focusing on specific areas of testing and certification. The labs included: 1) Microbiology lab 2) Electrical lab 3) Mechanical lab 4) Chemical lab.The Key Learnings Were We Witnessed practical applications of standards and quality control measures. Gained insights into the

importance of standardization in ensuring product quality and safety and Learned about the testing procedures and equipment used in different types of laboratories.

The industrial visit to the BIS Laboratory was a valuable experience, providing us with practical knowledge and insights into the processes involved in testing and certifying products. It highlighted the importance of standards in ensuring consumer safety and product quality, which will be beneficial for our future careers in the industry. It was insightful to visit BIS Lab Total 60 students with 4 faculty members visited.





2. Industrial Engineering Syndicate (INENSY), Vasai

The visit was organized by VIVA Institute of Technology -EXTC faculties. Guest speaker took the session about Heavy earth moving equipment's, Tractors, Heavy & Light commercial vehicles. INENSY has been a part of the Auto-Electrical component industry for more than four decades. INENSY has a comprehensive portfolio of automotive switches for dashboards, engines, safety applications, illumination, automotive gadgets, automobile attachments and implements. High quality and zero defect products lies at the core of everything INENSY does. The session was fruitful and all the teaching staff gained a complete picture of how technology is working in the industrial front. This helped them to gain insight for enhancing their teaching skills.





3. EDBA academy (Contentstack), Virar (West)

The visit was organized by VIVA Institute of Technology -EXTC faculties. adopting the pedagogy of learning by doing, we aim to bring innovation right into the educational structure at the edba academy. Beyond sharing lectures, books, and notes, our multi-skilled and industry-focused programs encourage students to apply their knowledge to real-life situations, personalizing the learning experience. EDBA academy comes under Contentstack. Contentstack Services to develop an application that adheres to the limitations in this document, the Use Policy and External Facing Services Policy. In such documents you are the Customer and the Contentstack Services are the Saas Services. Contentstack is MNC company, having more than 400 workforce and major workforce is sitting in virar. They are third global company providing content services. During visit faculty visit, faculty visited complete company and understand working methods, also interacted with speaker, find opportunities and current trends in IT.





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STUDENT ACHIEVEMENTS- Extra Curricular



Sahil Singh, SE EXTC bagged 1st Prize in a technical blog writing competition held at KC Engineering College.



Zhil Vora, BE EXTC Published poem in book name PARADISE By The Youth Of India, available on Amazon

STUDENT ACHIEVEMENTS

Niraj Dhadve, Dipak Gaikwad, Sakshi More, TE EXTC Won 1st Price (worth cash price of Rupees 30,000) Anveshna-2024 Science and Engineering Fair School Challenge Event by Agastya foundation.





FACULTY ACHIEVEMENTS

Congratulations to **Dr. Archana Ingle**, Department of Electronics and Telecommunication Engineering for successfully defending her PhD Thesis titled, **"Brain Tumor Segmentation and Analysis using Deep Learning"** at Thadomal Sahahi Engineering College, Bandra, University of Mumbai.



Dr. Archana Ingle	NPTEL IIT Madras The Joy of Computing Using Python- 80% Elite Silver Certificate, Jan-Apr 2024
Mr. Pratik Parsewar	NPTEL IISC Bangalore Teaching and Learning in Engineering (TALE)- 66% Elite Certificate, Jan-Feb 2024
Mr. Kushal Suvarna	NPTEL IISC Bangalore Teaching and Learning in Engineering (TALE)- 76% Elite Silver Certificate , Jan-Feb 2024
	NPTEL IIT Kharagpur Data Base Management System - 63% Elite Certificate, Jan-Mar 2024

Mrs. Meena Perla	NPTEL IISC Bangalore Teaching And Learning in Engineering (TALE)- 77% Elite Silver Certificate , Jan-Feb 2024
	NPTEL IISC Bangalore NBA Accreditation and Teaching - Learning in Engineering (NATE)- 75% Elite Silver Certificate , Jan-Apr 2024
Mrs. Ashwini Haryan	NPTEL IISC Bangalore Teaching And Learning in Engineering (TALE)- 62% Elite Certificate, Jan-Feb 2024
Mrs. Sonali Gaikwad	NPTEL IIT Madras Research Methodology in Natural Sciences- 87% Elite Silver Certificate , Top Topper 5%, Jan-Apr 2024
	NPTEL IIT Madras
	Deep Learning- 73% Elite Certificate.
	Jan-Apr 2024
	PUBLICATIONS
	Paper title: Analysis of Image Forgery Detection Technique
	Journal: International Journal of Innovative Research in Science, Engineering and Technology
Mr. Bharat Warude	NPTEL IISC Bangalore
	Teaching And Learning in Engineering (TALE)- 60% Elite Certificate, Jan-Feb 2024

Congratulations

Top Ranker CGPI

BE EXTC (Sem VIII)

1.	KRUTIKA SANJAY PENKAR	8.83		
2.	NIKITA SHIVRAM KUBAL	8.57		
3.	RUTIK PANDURANG KINI	8.52		
TE EXTC (Sem VI)				
1.	SHUBHUM PATIL	9.28		
2.	OMKUMAR MISHRA	8.95		
3.	MANALI KADAM	8.79		

SE EXTC (Sem IV)

1.	SERVESH SINGH	7.73
2.	MANAS LAGORI	7.21
3.	ESHAAN BANGERA	7.18



COLLEGE PLACEMENTS

Jatin Tiwari Intern, Qspiders / JSpiders

Omkumar Mishra Intern, Ospiders / JSpiders

Shubham Patil Intern, Qspiders / JSpiders and Prama Hikvision, GET

> Sayanna Mukherji Software Engineer, Sankey Solutions

> > Sunny Pawar Prama Hikvision, GET

Rishabh Nikam Prama Hikvision, GET

> Mayur Patil Prama Hikvision, GET

Pushapak Khandagale

Prama Hikvision, GET

Amit Vishwakarma Prama Hikvision, GET and Empower learning, Trainer

Manali Kadam

TCS, Ninja Profile

Aasavaree Rane

ALTOP Industries, Assistant Engineer

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CLASS PHOTO (AY 2023-24)



B.E.



T.E.



S.E.

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DEGREE DISTRIBUTION CEREMONY







ALUMNI CORNER: STUDENT SPEAKS



Ms. Sayanna Mukherji

"During my four years at VIVA Institute of Technology pursuing my BE in Electronics and Telecommunication Engineering, I found the experience to be immensely beneficial.

Under the guidance of our highly competent professors, I delved deep into various hard skills and technologies, gaining invaluable expertise.

Moreover, my involvement in diverse student bodies and panels also honed my non-academic soft skills, enriching my overall learning journey.

Beyond the classroom, engaging in extracurricular activities, enriching seminars and collaborative projects further broadened my horizons, fostering teamwork and leadership qualities.

Throughout, both the teaching and non-teaching staff demonstrated exceptional cooperation and understanding, thereby creating a supportive & an encouraging environment conducive to personal and academic growth."



Ms. Zhil Vora

Studying in the Electronics and Telecommunication Engineering (EXTC) department has been an enriching journey filled with diverse learning experiences. From delving of digital and analog electronics to exploring cutting-edge telecommunications technologies, every aspect of the curriculum has broadened my understanding of the field. Engaging lectures, hands-on experiments, and collaborative projects have not only equipped me with technical skills but also fostered critical thinking and problem-solving abilities. The amazing faculty and vibrant academic environment have made my time in the EXTC department both rewarding and inspiring, paving the way for a fulfilling career in the ever-evolving field of engineering.