SANCHAR

THE NEWS BULLETINE

Sakeshwar Gramin Vikas Seva Sanstha's

Adsul's Technical Campus ,

Ahmednagar

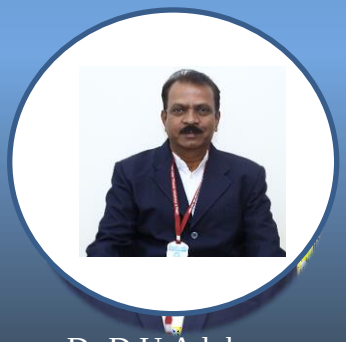
Department of Electronics &Telecommunication Engineering

Shri Aniruddha M. Adsul

Chairman

Dr. P.M .Patil

Principal



Dr.D.U.Adokar

Head of Department

Vision of Institute

To be a most preferred Rural Technical Campus in the region by creating competent multifaceted Engineers and Professionals ready to serve the industry and society at large.

Mission of Institute

To establish state-of-the-art facilities and create a conducive environment for transforming the rural minds into competent, skilled, professional, researchers, technically sound, innovative aptitude, and ethics through value-based education to develop the nation for global competitiveness.

Objectives of Institute

- To provide quality education with futuristic trends in engineering and technology
- To ensure continual improvement in quality management system
- To impart innovative teaching and learning

Vision of Department

To be a premier department in the field of Electronics and Telecommunication engineering with emphasis on hands-on activities.

Mission of Department

M1. Producing professional engineers to handle the state-of-the-art technologies in the field.

M2. Imparting research and innovative aptitude with high moral for overall development of students.

M3. Establish leadership skills, team spirit and high ethical values among the students.

M4. Encourage students to become entrepreneur.

Silent feature of Department

- **Supportive learning for placement:** Placement learning is immersive and iterative. Support in the form of formative tasks and activities are crucial for student success, whilst being mindful of the need to ensure parity of student workload between modules of the same credit weighting. Placement assistance can offer students professional guidance and support to help them build successful careers. Students who might feel overburdened by the job search process might greatly benefit from placement assistance services.
- **Value added courses:** Value Added courses are career and market oriented, skill-enhancing courses that empower the students beyond their domain of study. The certificate programmers enable them to enrich their capability and enhance their employability. Value added courses are conducted for one week during the semester breaks by department faculty and external trainers.
- **Career oriented Add-On Courses:** Job-oriented courses are training and academic courses that prepare professionals for a particular career field or role. A traditional academic course may provide an overview of a certain topic or area, but a job-oriented course focuses on the knowledge and skills required for a particular job.
- **Teacher as Mentor:** The role of the Mentor Teacher is a complex blend of modeling, coaching, instructing, collaborating, and encouraging as candidates build competency in program standards. Mentor Teachers are expected to support candidates in developing the skills and knowledge to meet these standards.
- **Report writing and Paper Presentation:** A report is a specific form of writing, written concisely and clearly and typically organized around identifying and examining issues, events, or findings from a research investigation. Reports often involve investigating and analyzing a problem and coming up with a solution.
- **Professional Development for Industrial Engagement:** There are three types of employee engagement: **cognitive**, **emotional**, and **physical**. When employees are cognitively engaged, they're committed to their job, when they're physically engaged, they're invested in their work, and when they're emotionally engaged, they have an emotional connection to their work.
- **Personality Development and Soft Skill Training:** Personality Development teaches us how to communicate and display ourselves as having caring skills. It also emphasizes personal management, grooming, health, and nutrition, as well as soft skills. This course educates students on the numerous aspects of self-development. Soft skills comprise pleasant and appealing personality traits as self-confidence, positive attitude, emotional intelligence, social grace, flexibility, friendliness and effective communication skills. INTENDED AUDIENCE: Students, Teachers, Professionals, Trainers, Leaders, and Employers.

Program Educational Objectives (PEOs)

PEO1: To prepare globally competent graduates having strong fundamentals and domain knowledge to provide effective solutions for engineering problems.

PEO2: To prepare the graduates to work as committed professionals with strong professional ethics and values, sense of responsibilities, understanding of legal, safety, health, societal, cultural and environmental issues.

PEO3: To prepare committed and motivated graduates with research attitude, lifelong learning, investigative approach, and multidisciplinary thinking.

PEO4: To prepare the graduates with strong managerial and communication skills to work effectively as individual as well as in teams.

Program Outcomes (POs)

PO-1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering Programs.

PO-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.

PO-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.

PO-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.

PO-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.

PO-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.

PO-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.

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

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

PO-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.

PO-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.

PO-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.

Program Specific Outcomes (PSOs)

PSO1: Professional Skills: Graduate will be able to conduct experiments, analyse, adopt & apply the knowledge of Electronics & Communication System & manage different projects in the multidisciplinary areas.

PSO2: Problem-Solving Skills: Utilize modern computational tools, software tools & hardware required with the proper understanding of all basic technical skills, soft skills in industry

PSO3: Successful Career: The ability to employ modern computer languages, environments, and platforms in creating innovative career paths. creating innovative career paths

Rangoli Competition

Rangoli is a form of folk art that originated in the Indian subcontinent. A Rangoli may be symmetrical and consist of bright colors, intricate patterns and motifs. They are commonly created around Diwali, an important Hindu religious holiday that celebrates the victory of light over darkness.

The competition develops art & creativity among students. It also gives happiness & joy to Students in their academics. These competitions help students to remain in close touch with their Culture. To enhance students' creativity in art and providing place of competition to encourage Student's ability, hence the Department of Computer Engineering organized Rangoli Competition.

- To encourage students to enhance their skills in Rangoli design.
- To enhance the creativity & imagination in the field of art.
- To boost their confidence in the art.
- To encourage students to take active part in co-curricular activities.

Rangoli is a traditional form that brightens up an occasion and is believed to be harbinger of good luck. Beautiful patterns are created on the floor using coloured rice, flowers, coloured sand or paints. In order to develop skills of aesthetics, creativity and innovation among the students, a 'Rangoli Competition' was conducted on **15th September 2023**. The criterion for judgment was the selection of the design, neatness, clarity, color combination and creativity or new ideas implemented by the students to make their design more presentable.

The competition was held for the students of classes FE/SE/TE/BE. The students had pre-planned their patterns and had come prepared with all the materials, they required for making them. The competition was held in two categories.. The students put their best foot forward and took part in the competition with zest. Innovation and creation are the words that best describe their efforts. The Rangoli Competition motivated the students to perform and outshine in their creative skills and most importantly, their teamwork brought laurels to their house.

Mini Project Exhibition

The Mini Project Exhibition, organized by the ETESA Activity Department, was held on 5th September 2023. The event aimed to provide a platform for students from Second Year (SE) to Third Year (TE) to showcase their innovative ideas and engineering skills through their mini projects. The competition was voluntary, and students were encouraged to present their projects that were designed as a part of their curriculum or personal initiatives. The exhibition witnessed active participation and showcased a variety of creative projects in different fields of engineering.

The Mini Project Exhibition was a successful event that provided a platform for students to apply their theoretical knowledge in practical scenarios. It encouraged creativity, technical learning, and teamwork among participants. The event was a great success, with the students receiving constructive feedback and gaining exposure to the real-world applications of engineering concepts.

Such events are essential in the academic journey, as they help students bridge the gap between theory and practice, preparing them for the challenges of the professional world. The ETESA Activity Department looks forward to organizing more such events in the future to foster innovation and creativity among the students.

Expert Lecture

Expert lecture was organized for students on 17th Oct 2023.The expert was Mr. Sunil Desale from Kushman Instruments Pvt Ltd, Pune. His topic of discussion was Measurement in Industry.

On 17th October 2023, an insightful expert lecture was organized for the students, focusing on the vital subject of "Measurement in Industry." The lecture was conducted by Mr. Sunil Desale, a distinguished professional from Kushman Instruments Pvt Ltd, Pune. This event aimed to provide the students with a deeper understanding of the role measurement plays in various industrial processes and applications.

Mr. Desale began by outlining the importance of accurate and reliable measurements in industries such as manufacturing, automotive, pharmaceuticals, and electronics. He emphasized how precision in measurement ensures product quality, compliance with standards, and efficient use of resources.

Throughout the lecture, students were highly engaged and asked insightful questions. Topics such as the impact of new technologies on traditional measurement methods and the challenges of working with highly sensitive equipment were discussed in depth. Mr. Desale encouraged students to stay updated with the latest industry trends and focus on practical skills related to measurement technologies. The lecture not only expanded their technical knowledge but also gave them insights into the practical applications and challenges of the field.

Visit to Business Expo

Department of E&TC engineering students visited MCCIA business expo on 18th Oct 2023.

On 18th October 2023, students from the Department of Electronics and Telecommunication Engineering (E&TC) visited the MCCIA Business Expo held in Pune. This visit was an excellent opportunity for students to explore the latest trends in the business, technology, and industrial sectors.

The visit to the MCCIA Business Expo was a highly enriching experience for the students of the E&TC Department. It allowed them to bridge the gap between theoretical learning and practical applications, while also providing exposure to new trends and emerging technologies in the business and industrial sectors. Students left the expo inspired and motivated to apply their knowledge and skills to real-world challenges, while also considering the vast career opportunities in technology and innovation.

Donation to Needy Group

Department of E&TC donated cloths to the orphan age Anandrushi Ashram, Netri on 21 oct 2023 by the hands of HoD Dr. D U Adokar. On 21st October 2023, the Department of Electronics and Telecommunication Engineering (E&TC) organized a charitable event to donate clothes to the orphanage Anandrushi Ashram located in Netri. The event was graced by Dr. D.U. Adokar, Head of Department (HoD), who personally handed over the clothes to the children and staff of the ashram.

The donation to Anandrushi Ashram was a successful and fulfilling event, reflecting the Department of E&TC's commitment to social causes and community engagement. It was an opportunity to bring a positive change in the lives of children who need care and support. The event not only provided essential clothing but also fostered a sense of empathy and social responsibility among the students. The department looks forward to organizing similar charitable activities in the future to continue making a difference in society.

Placement & Internship Talk

Expert from Azure Infotech Pvt. Ltd. Has delivered placement and internship talk to TE and BE students on 10th Oct 2023.The session was delivered by an expert from *Azure Infotech Pvt. Ltd.*, a leading IT solutions company known for its innovative technologies and solutions.

The Placement and Internship Talk was an informative and inspiring session that provided TE and BE students with valuable insights into the internship and placement process. The expert from Azure Infotech Pvt. Ltd. not only gave students a clear understanding of the company's expectations but also motivated them to hone their skills and prepare diligently for the competitive job market. The session was an excellent initiative by the department to equip students with the necessary knowledge and tools to succeed in their careers.

Tree Plantation

On 5th June 2023.Department of E&TC Engineering, Adsul's Technical Campus, Ahmednagar successfully completed the event of Tree Plantation . Trees are the foremost source for producing the oxygen in environment, they helps to reduce the level of CO2 . As we all know that the whole world is facing the problem of global warming and to recover from such problem planting the trees is become one of the most important aspects today.

The event was began with the welcoming of guest Honorable Mr. Anirudha Adsul, Chairman, SGVSS, respected Principal, Dr. P. M. Patil. Welcome speech has been given by the head of the department Dr. D.U.Adokar At that time Principal advice to volunteers to think differently for the Society to make positive changes and to make improvement. After that department Volunteers sung a song followed by the felicitation of guest. Dr. D.U.Adokar orients the students by notifying the importance of tree plantation for them as well as society. He shared his past experiences with students that how he got the success and what difficulties he faced while performing his role as teacher.

He said that "In society all he human beings are comprise equal importance, no matter with the Men or Women." He also said that the dedication is must to accomplish the goals and dreams in life. Mrs. Monika Shahane also address the students and passed a message of kindness & being helpful to the needy people. After the inspirational words of guests and Principal we all move towards the place where tree plantation took place.

A very first tree plant by Dr. P. M. Patil, Principal in college campus. Total tree planted by all others including teachers, students was more than 15 on the day. All were happy and experience proud after the tree plantation event was finished, because it really feels great to do positive for the nature.

TREES ARE THE ROOT OF OUR EXISTENCE

Visit to NBA accredited Colleges.

In view of preparation of NBA , Principal Dr. P M Patil, NBA coordinator Dr. D U Adokar and members visited PCCOE Pune on 20th Oct 2023. Also Visited to PCCOE, Pune on 27th Oct 2023 .

Articles by Students

Electronic engineering is a sub-discipline of electrical engineering that emerged in the early 20th century and is distinguished by the additional use of active components such as semiconductor devices to amplify and control electric current flow. Previously electrical engineering only used passive devices such as mechanical switches, resistors, inductors, and capacitors.

It covers fields such as analog electronics, digital electronics, consumer electronics, embedded systems and power electronics. It is also involved in many related fields, for example solid-state physics, radio engineering, telecommunications, control systems, signal processing, systems engineering, computer engineering, instrumentation engineering, electric power control, photonics and robotics.

The Institute of Electrical and Electronics Engineers (IEEE) is one of the most important professional bodies for electronics engineers in the US; the equivalent body in the UK is the Institution of Engineering and Technology (IET). The International Electro technical Commission (IEC) publishes electrical standards including those for electronics engineering.

Electronics engineering as a profession emerged following the identification of the electron in 1897 and the subsequent invention of the vacuum tube which could amplify and rectify small electrical signals, that inaugurated the field of electronics.[1] Practical applications started with the invention of the diode by Ambrose Fleming and the triode by Lee De Forest in the early 1900s, which made the detection of small electrical voltages such as radio signals from a radio antenna possible with a non-mechanical device. The growth of electronics was rapid. By the early 1920s, commercial radio broadcasting and communications were becoming widespread and electronic amplifiers were being used in such diverse applications as long-distance telephony and the music recording industry.

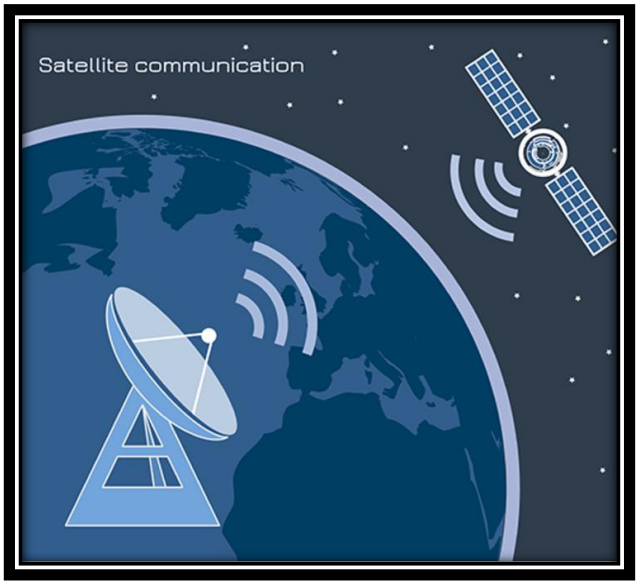
Akanksha Keskar.

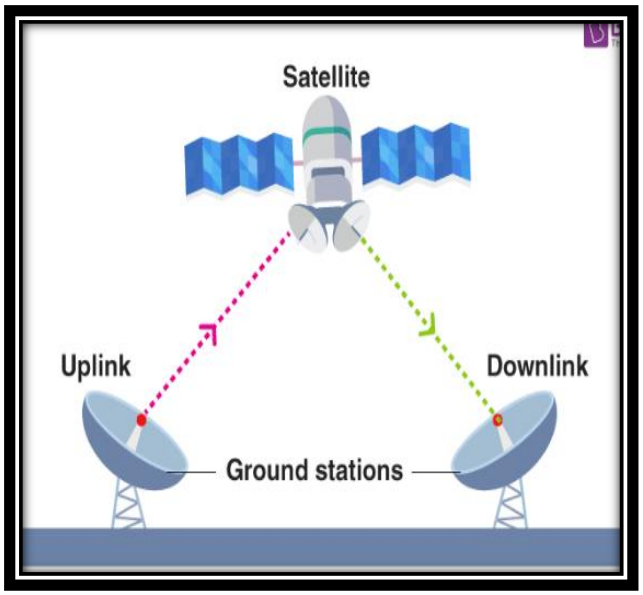
SE E&TC.

Communications satellite

A communications satellite is an artificial satellite that relays and amplifies radio telecommunication signals via a transponder; it creates a communication channel between a source transmitter and a receiver at different locations on Earth. Communications satellites are used for television, telephone, radio, internet, and military applications. Many communications satellites are in geostationary orbit 22,236 miles (35,785 km) above the equator, so that the satellite appears stationary at the same point in the sky; therefore the satellite dish antennas of ground stations can be aimed permanently at that spot and do not have to move to track the satellite. Others form satellite constellations in low Earth orbit, where antennas on the ground have to follow the position of the satellites and switch between satellites frequently.

The radio waves used for telecommunications links travel by line of sight and so are obstructed by the curve of the Earth. The purpose of communications satellites is to relay the signal around the curve of the Earth allowing communication between widely separated geographical points. Communications satellites use a wide range of radio and microwave frequencies. To avoid signal interference, international organizations have regulations for which frequency ranges or "bands" certain organizations are allowed to use. This allocation of bands minimizes the risk of signal interference.





Omkar Kale

TE E&tc

Radio Wave

This article is about the radiation. For the generic oscillation, see Radio frequency. For the electronics, see Radio frequency engineering. For the British broadcasting station, see Radio Wave 96.5. For other uses, see Radio Waves.

Radio waves are a type of electromagnetic radiation with the lowest frequencies and the longest wavelengths in the electromagnetic spectrum, typically with frequencies below 300 gigahertz (GHz) and wavelengths greater than 1 millimeter ($^{3}\!/_{64}$ inch), about the diameter of a grain of rice. Radio waves with frequencies above about 1 GHz and wavelengths shorter than 30 centimeters are called microwaves.[1] Like all electromagnetic waves, radio waves in vacuum travel at the speed of light, and in the Earth's atmosphere at a slightly lower speed. Radio waves are generated by charged particles undergoing acceleration, such as time-varying electric currents.[2] Naturally occurring radio waves are emitted by lightning and astronomical objects, and are part of the blackbody radiation emitted by all warm objects.

Radio waves are generated artificially by an electronic device called a transmitter, which is connected to an antenna, which radiates the waves. They are received by another antenna connected to a radio receiver, which processes the received signal. Radio waves are very widely used in modern technology for fixed and mobile radio communication, broadcasting, radar and radio navigation systems, communications satellites, wireless computer networks and many other applications. Different frequencies of radio waves have different propagation characteristics in the Earth's atmosphere; long waves can diffract around obstacles like mountains and follow the contour of the Earth (ground waves), shorter waves can reflect off the ionosphere and return to Earth beyond the horizon (sky waves), while much shorter wavelengths bend or diffract very little and travel on a line of sight, so their propagation distances are limited to the visual horizon.

Neha Kotakar
BE E&TC

Picture Gallery