ASHOKRAO MANE POLYTECHNIC VATHAR
ELECTRONICS AND COMPUTER ENGINEERING
NEWSLETTER : THE CONNECT

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THEME : *Immersive Technology*

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About The Institute

Shri Balasaheb Mane Shikshan Prasarak Mandal Ambap's, Ashokrao Mane Polytechnic, Vathar Tarf Vadgaon (AMPV) was established in 2008 and is located near Kolhapur. This Institute has AICTE approval for the Seven Diploma courses. Under the visionary leadership and administration, AMPV has emerged as a leading technological institute and is perfect destination for quality technical education. The institute has NBA accredited Programmes, 100% placements in MNCs, best academic results, well established labs. The institute was also honoured with notable awards.

About The Department

The aim of Electronics and Computer Engineering Dept., is to develop in young technocrats, an ability to solve design oriented problems in electronic circuits and various software systems along with to impart quality education and industrial training to the students in various areas of Electronics and Computer Engineering. It has been in the forefront of imparting quality education to students. The Department has 04 laboratories, adequate class rooms with advanced facilities like projector, laptop and other facilities. The department believes in all round development of the students through continuous students-industry interaction. The students are encouraged to participate in co-curricular and extra-curricular events. The faculty members are encouraged to enhance their knowledge by attending Faculty Development programs. The Department is fully equipped with state-of-the-art laboratories such as Analog Electronics & Digital Electronics .

Vision and Mission of Department

To be a reputable department that offers technical instruction in Electronics and Computer Engineering for the benefit of society.
MISSION:
- To create a dynamic and intellectually stimulating learning environment where students can advance their careers.
- Providing cutting-edge technological education while adhering to industry standards for excellence.
- To cultivate a culture that supports a person's overall growth, including their social and ethical obligations.
- To fortify ties with businesses in order to enable pupils to labour under challenging circumstances.

THE CONNECT

MESSAGE FROM PRINCIPAL DESK

Prof. Dr. Y. R. Gurav

Principal

The fact of launching the "THE CONNECT" newsletter edition by the faculty, staff and students of Electronics and Computer Engineering department of Ashokrao Mane Polytechnic Vathar gives me immense pleasure. It is indeed a matter of pride and satisfaction having this newsletter which showcases the progress in the areas of academics, extracurricular, faculty and students achievement of the department. The newsletter focused on all sorts of activities undertaken by a department and opens the opportunity to enhance the writing skills among the members. This will not only benefits the students with the information of their departmental achievement but also motivate and aspire others to know the heights achieved by the Electronics and Computer Engineering department. I congratulate the editorial board of this newsletter who have played a wonderful role in accomplishing the task in record time. I express my deep sense of gratitude to Head Of Department , Mr. S. S. Mane for undertaking the task and successful completion of the same. Also my heart felt congratulation to staff member for their faithful effort with all my best wishes.

MESSAGE FROM EDITOR'S DESK
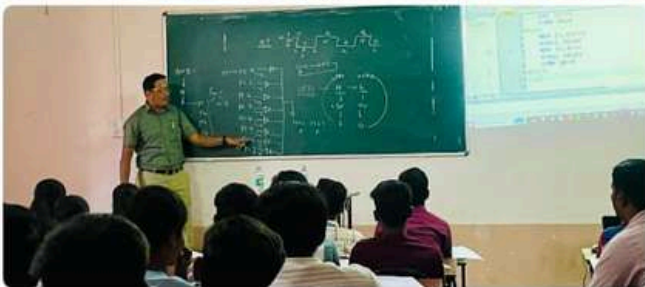

Mr. S. S. Mane

H.O.D

It is with immense pleasure that I share my experience of working on our departmental newsletter, "THE CONNECT". This publication serves as a vibrant showcase of the diverse activities undertaken by students and faculty , including academic achievements, events, and various departmental milestones. I sincerely hope that this newsletter becomes a source of inspiration for students to express themselves creatively and share their innovations. Serving as the editor for the Department of Electronics and Computer Engineering at Ashokrao Mane Polytechnic is a matter of great pride and honor for me. I am delighted to bring you the May 2025 edition, which captures the vision, mission, and dynamic spirit of our department. This issue includes a rich collection of updates from academic progress and cultural events to technical workshops and student accomplishments. Over the past six months, I have strived to chronicle the department's journey with enthusiasm and authenticity. It is my heartfelt effort that this edition resonates with the readers, particularly students, encouraging them to explore the newsletter as a means of communication and creative expression. I truly hope you find this edition both engaging and inspiring.

Guest Lecture On Java Programming

On 18th January 2025, the Department of Electronics and Computer Engineering organized a guest lecture on "Java Programming", delivered by Ms. Sneha Sonalkar from BITS Techno, Kolhapur. The session focused on practical demonstrations of TCP and UDP client-server communication and the implementation of a proxy server using Java socket programming. Through live coding examples, students gained hands-on experience and a deeper understanding of real-time data transmission, differences between connection-oriented and connectionless protocols, and the role of proxy servers in network communication. The interactive lecture greatly enhanced the students grasp of key networking concepts in Java.

Guest Lecture On Microcontroller And Its Applications

On 15th Feb 2025 the Department of Electronics and Computer Engineering organized a guest lecture on "Microcontroller and Its Applications" for Second-Year Diploma students. The session was conducted by Mr. Avdhoot R. Telepatil, Assistant Professor at D.K.T.E.'s Textile and Engineering Institute, Ichalkaranji. During the lecture, students gained insights into the fundamentals of microcontrollers, their architecture, programming techniques, and real-world applications. The session covered various aspects such as embedded systems, automation, and the role of microcontrollers in modern electronic devices.

Mr. Telepatil also demonstrated practical examples and hands-on programming exercises, which helped students better understand how microcontrollers can be integrated into everyday technology. He emphasized the importance of microcontrollers in industries like robotics, automotive, and consumer electronics, inspiring students to explore innovative projects. The interactive session encouraged students to ask questions and engage in discussions.

Parent's Meet

The Electronics and Computer Engineering Department organized a parents' meeting on 3rd March 2025 to discuss students' progress. This event provided an opportunity for faculty to share insights on academic performance, achievements, and areas for improvement. The meeting aimed to strengthen the partnership between parents and the department, ensuring that students receive the support they need to thrive.

The event is typically scheduled at regular intervals during the academic year and is carefully planned by the academic administration. Prior to the meeting, parents are informed through official notices, messages, or emails, and time slots may be allotted to avoid overcrowding. On the day of the event, teachers meet individually with parents to discuss the student's academic performance, attendance, behavior, and areas for improvement. Special attention is given to identifying students who may need additional support. The meeting may also include presentations by the faculty about college policies, upcoming events, and student achievements. Feedback from parents is often collected to improve the educational environment. Overall, the parent meet strengthens the partnership between home and college, ensuring students receive consistent guidance and motivation.

Industrial Workshop

On 27th January 2025 as part of our academic curriculum, the Department of Electronics and Computer Engineering organized a workshop on "Industrial Automation: PLC, SCADA & HMI." This workshop aimed to provide students with hands-on experience and in-depth knowledge of Programmable Logic Controllers (PLC), Supervisory Control and Data Acquisition (SCADA), and Human-Machine Interface (HMI) these are key components in modern industrial automation. The sessions covered the fundamental principles, programming techniques, and real-world applications of these technologies in various industries. Students engaged in practical exercises to design and simulate automated control systems, gaining valuable skills.

Soft Skill Training

A Soft Skills Program for Students has been conducted from 13th January ,2025 to 15th January, 2025. The program was designed to develop essential interpersonal and communication abilities that complement academic knowledge. It focuses on enhancing key skills such as teamwork, leadership, time management, problem-solving, adaptability, and effective communication. Through workshops, group activities, and interactive sessions, students has gain confidence and learn how to handle real-life challenges more efficiently.

Reflex 2k25

Paper Presentation

As part of the academic curriculum, the Department of Electronics and Computer Engineering organized a Paper Presentation and Technical Event, "REFLEX 2K25", on 11th February 2025 at Ashokrao Mane Polytechnic, Vathar. The event was inaugurated and judged by Mrs. S. P. Dawane, Assistant Professor, Government College of Engineering, Karad, under the guidance of Prof. Dr. Y. R. Gurav, Principal.

Over 100 students participated, presenting papers on emerging topics such as Artificial Machine Learning (AIML), Organic LEDs (OLEDs), and 5G Networks .The event helped students enhance their research, presentation, and technical skills, boosting their confidence and industry readiness.

Tech Spark Project Competition

On 11th February 2025, the Department of Electronics and Computer Engineering at Ashokrao Mane Polytechnic, Vathar Tarf Vadgaon, organized a remarkable technical event aimed at bridging the gap between theoretical knowledge and practical execution.

The event was conducted under the insightful guidance of Prof. Dr. Y. R. Gurav Sir, Principal of the college. We were honored by the presence of Mrs. S. P. Dawane, Assistant Professor in the E&TC Department, Government College of Engineering, Karad, who served as the esteemed guest for the occasion.

The event aimed to encourage creativity, enhance problem-solving abilities. Head Of the Department Prof. S. S. Mane, along with all teaching and non-teaching staff, contributed immensely to the event's success through their active participation and unwavering support.

INDUSTRIAL VISIT

Shreem Electric Ltd. , Jaysingpur

On 14th Feb 2025 the Department of Electronics and Computer Engineering organized an industrial visit to Shreem Electric Ltd, Jaysingpur. This visit was arranged for Second-year and Third-year students. During the visit, students explored the production process of HT (High Tension) and LT (Low Tension) capacitors. They observed various stages of capacitor manufacturing, including raw material selection, assembly, quality testing, and final product evaluation. The visit also covered insights into the practical applications of capacitors in power factor correction, voltage stabilization, and energy efficiency improvement. The visit also covered insights into the practical applications of capacitors in power factor correction, voltage stabilization.It also inspired students to appreciate the importance of innovation, quality control, and sustainability in the electronics manufacturing sector.

Dana Anand India Private Limited, Satara

On 21st February 2025, we department of Electronics and Computer Engineering organised Industrial Visit at Dana Anand India Private Limited (Spicer India) Satara. Students have learned about how we can use Automation in Drive Shaft manufacturing and what type of life safety rules are followed while visiting any industry. An industrial visit to Dana Anand India Private Limited in Satara offers students a unique opportunity to explore the practical aspects of manufacturing and engineering in the automotive sector. During the visit, students get firsthand exposure to the production of drivetrain components such as axles and driveshafts, which are essential for commercial and utility vehicles. They observed advanced manufacturing processes, quality control measures, and the integration of modern technology aimed at improving efficiency and performance.

YUVA TARANG 2K25

Twins Day Celebration

Twins Day was joyfully celebrated on 7th March 2025, turning the entire campus into a lively and colorful space filled with laughter, creativity, and togetherness. Students enthusiastically paired up in matching outfits or mimicked each other's style, embracing the spirit of friendship and unity. The day featured exciting activities and competitions that encouraged teamwork and self-expression, making it a fun-filled experience for everyone involved. It was more than just a celebration it was a moment to break the routine, build stronger social bonds, and promote a sense of belonging within the institute.

Bollywood Day Celebration

Bollywood Celebration Day at the institute, held on 8th March 2025, was a vibrant and entertaining event that brought the magic of Indian cinema to life on campus. Students embraced the spirit of Bollywood by dressing up as their favorite movie stars, adding glamour, color, and excitement to the day. The celebration highlighted the richness of Indian film culture and created an atmosphere filled with joy, creativity, and unity among students.

Traditional Day Celebration

Traditional Day celebration in an institute is a special event dedicated to honoring and showcasing the diverse cultural heritage and traditional customs of different communities. Celebrated on 13th March 2025, students dress in traditional attire representing various regions and cultures, and participate in folk dances, music performances, and traditional games. The celebration promotes awareness and appreciation of cultural diversity, helping students connect with their roots and learn about the customs of others. It fosters respect, unity, and pride in cultural identity.

Student's Placement

The Placement Cell of the institute actively collaborated with top recruiters by organizing campus interviews, workshops, and skill development sessions aimed at preparing students for the job market. This initiative resulted in a remarkable achievement, with 64 students successfully placed in various reputed companies. Notable recruiters included CUMMINS India Ltd., Pune; BAJAJ Auto Ltd., Pune; GABRIEL India Ltd., Pune; KSPG India Automotive Pvt. Ltd., Pune; YAZAKI Pvt. Ltd., Pune; ANAND Group - MAHLE Thermal Plant, Pune; and JOHN DEERE India Pvt. Ltd., Pune.

NSS Activity

On the special occasion of Hon. Sou. Manisha Vijaysinh Mane's birthday, a Blood Donation Camp was successfully organized on Tuesday, 28th January 2025 from 9:30 AM to 4:00 PM. The event was held with the noble aim of supporting the healthcare system and encouraging a spirit of social responsibility among students and staff.

Rangoli and Mehandi Competition

To celebrate the spirit of creativity and cultural heritage, the Department of Electronics and Computer Engineering organized a Rangoli and Mehandi Competition on 8th March 2025, in honor of International Women's Day. The event witnessed enthusiastic participation from students who showcased their artistic skills and imagination through vibrant Rangoli patterns and intricate Mehandi designs. Ms. Vedika Dinde, a Second Year Electronics and Computer student, was the winner of the competition, contributing to the lively and colorful atmosphere of the celebration.

Alumini Meet

Ashokrao Mane Polytechnic, located in Vathar Tarf Vadgaon, Kolhapur, Maharashtra, organized its annual alumni meet on 4th January 2025. This event served as a platform for former students to reconnect with their peers and faculty, fostering a sense of community and pride in their alma mater. The meet featured various activities, including cultural performances, speeches, and discussions, providing attendees with an opportunity to reflect on their experiences and the institution's growth. Additionally, the event highlighted the achievements of alumni and their contributions to various fields, reinforcing the strong network and legacy of Ashokrao Mane Polytechnic, Vathar.

Annual Sport 2025

Annual Sports Day is a much-awaited event in any educational institution, celebrated with great enthusiasm and energy. It provides students with an opportunity to showcase their athletic talents and participate in various sports and games. The event, scheduled from 1st January 2025 to 6th January 2025 , followed by an oath-taking ceremony and the lighting of the sports flame. Various competitions like races, relays, long jump, high jump, and team games such as football, cricket, and volleyball are held. The event encourages teamwork, discipline, and a healthy competitive spirit among students. Prizes and medals are awarded to winners, making the day memorable and inspiring for all participants.

Send-Off Ceremony for Third-Year Students

The Electronics and Computer Engineering Department organized a heartfelt send-off ceremony for the third-year students on 30th April 2025. The event was a blend of celebration, reflection, and appreciation, marking an important milestone in the academic journey of the outgoing students. Faculty members and juniors gathered to extend their best wishes and share memorable moments. The program included speeches, cultural performances, and a token of appreciation presented to the students. The atmosphere was filled with warmth, nostalgia, and encouragement for the future. A send-off function organized by Second year students for the Third Year students is a heartfelt farewell event that celebrates the journey and achievements of the seniors before they step into the next phase of their lives. This function is filled with emotional speeches, cultural performances, and fun activities arranged by the juniors to honor and show appreciation for the guidance and support provided by the outgoing students. It creates a warm and memorable atmosphere where friendships are celebrated, memories are shared, and best wishes are extended for future endeavors. The send-off function strengthens the bond between batches and leaves a lasting impression on everyone involved.

FACULTY SPEAK

Mr. Jakirhusen Ilahi Tamboli

Lecturer

Immersive technologies like Virtual Reality (VR) and Augmented Reality (AR) are expanding beyond entertainment and video games into fields such as education, healthcare, and manufacturing. In education, they create engaging and interactive learning experiences, support virtual classrooms, and offer safe training environments. In healthcare, they assist with surgical training, patient therapy, and real-time medical visualization. In manufacturing, they improve worker training, aid in design and prototyping, and provide on-the-spot repair guidance.Although still emerging, these technologies are becoming increasingly valuable across various sectors as they become more accessible and affordable.Immersive technologies blend the real world with digital or simulated environments to create unique, interactive experiences. Immersive technologies blend the real world with digital or simulated environments to create unique, interactive experiences. The two main types are Augmented Reality (AR),which adds digital elements to the real world, and Virtual Reality (VR), which places users in a completely digital environment. Both technologies share similar features, such as enhancing how we see, interact with, and experience the world around us. To gain mainstream acceptance, it's essential for companies and developers to focus on affordability, security, and responsible use of the technology.

Miss. Nishigandha Shivaji Bondre

Lecturer

Virtual Reality (VR):

Virtual Reality (VR) is a cutting-edge immersive technology that creates a fully digital environment where users can interact with a simulated world in real time. It typically requires the use of specialized headsets and controllers that track head and body movements, allowing users to navigate and manipulate the virtual environment. VR is widely used in various industries for both entertainment and practical purposes. In gaming, it offers an engaging, lifelike experience, while in fields like aviation, medicine, and military training, VR provides a safe and cost-effective way to simulate real-life scenarios. .

Augmented Reality (AR):

Augmented Reality (AR), in contrast, enhances the real world by overlaying digital elements such as images, sounds, or data onto a live view of the physical environment. AR can be accessed through smartphones, tablets, and wearable devices like smart glasses. One of its main advantages is that it doesn't isolate users from their surroundings, making it ideal for practical applications. In retail, customers can preview products in their homes before making purchases; in healthcare, doctors can view patient data while performing procedures. AR is also transforming areas like marketing, architecture, and tourism by making information more interactive and visually engaging.

STUDENT SPEAK

Miss. Vidhika Vikas Kagale

Mr. Karan Krishnat Hapate

Different Immersive Technologies:

1]Virtual Reality (VR):

VR fully immerses users in a digital environment through headsets, creating a virtual world for gaming, training, and simulations. It helps users experience situations safely, such as flight training or medical procedures.

2]Augmented Reality (AR):

AR overlays digital content onto the real world using devices like smartphones or glasses, enhancing real-life experiences without replacing them. It's widely used in navigation, retail, and maintenance to provide real-time information.

3]Mixed Reality (MR):

MR blends physical and digital worlds, allowing virtual objects to interact with the real environment in real time for more interactive experiences.

4]360-Degree Video:

360-degree videos provide panoramic views users can explore by moving their heads or devices, offering immersive but non-interactive experiences. They are often used for virtual tours, concerts, and immersive storytelling.

5]Haptic technology :

It adds tactile feedback to digital environments through gloves or suits, making virtual interactions feel more realistic. As haptic systems become more refined and affordable, they are expected to play a major role in the development of fully immersive virtual and augmented reality experiences.

Virtual Reality (VR) Use Cases

- Medical Training: VR allows medical students and surgeons to practice complex surgeries in a highly realistic, virtual environment. This hands-on training helps build skills and confidence without any risk to real patients. It also enables repeated practice and exposure to rare medical scenarios.

- Workplace Safety: In industries like construction and manufacturing, VR simulates dangerous situations such as fires or equipment failures. Workers can train safely in these virtual scenarios to learn how to respond effectively, reducing accidents and improving overall safety.

Augmented Reality (AR) Use Cases

- Retail: AR apps let customers virtually try on clothes, glasses, or makeup using their smartphone cameras. This helps shoppers make better decisions by visualizing products on themselves or in their homes before buying. It enhances the shopping experience by making it more interactive and personalized.

- Maintenance: Technicians use AR glasses or tablets that overlay step-by-step repair instructions directly onto the equipment they're servicing. This hands-free guidance increases accuracy especially in complex machinery or unfamiliar tasks.

STUDENT ACHIEVEMENT (WINTER -24)

T.Y. Toppers

Miss. Shreya Babaso Patil
91.47%

Miss. Aparna Ashok Mane
89.79%

Mr. Ganesh Dashrath Naik
88.21%

S.Y. Toppers

Mr. Swaraj Bramhanath Khot
77.63%

Miss. Sayali Gunda Mandale
77.53%

Miss Sanika Shahaji Patil
77.53%

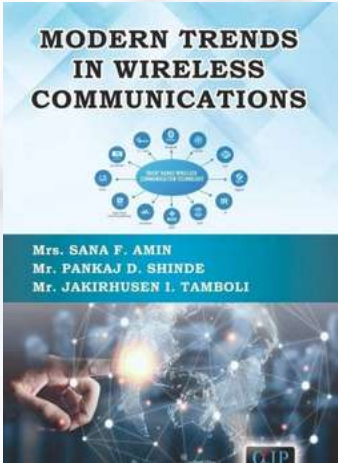### F.Y. Toppers

Miss. Anushka Sandip Kumbhar
88.71%

Mr. Shubham Ekanath Dalavi
87.71%

Mr. Aditya Vasudev Kulkarni
83.53%

FACULTY ACHIEVEMENT

MODERN TRENDS IN WIRELESS COMMUNICATIONS

Mrs. SANA F. AMIN
Mr. PANKAJ D. SHINDE
Mr. JAKIRHUSEN I. TAMBOLI

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A textbook Named as "Modern Trends in Wireless Communication" has been published by Mr. Jakirhusen Ilahi Tamboli and Mr. Pankaj Dinkar Shinde offering a detailed exploration of the latest advancements in wireless technology.

Mr. Pankaj Dinkar Shinde has published a research paper on Smart Hydroponic Agriculture, focusing "on sustainable, soil-less cultivation methods that address challenges like soil degradation, urbanization, and labor shortages".

SUCCESS STORY

Mr. Aniket Shipekar

I am Mr. Aniket Shipekar. I had taken admission at Ashokrao Mane Polytechnic in Electronics and Telecommunication Engineering in the year 2016–17. Now I am working as an Operating Engineer at Rheinmetall Automotive Pvt. Ltd., Pune with an annual package of 3 LPA. I was a determined student with a strong desire to grow and succeed. AMP played a vital role in shaping my professional journey by equipping me with the necessary technical knowledge and life skills.

The guidance and support from the faculty at AMP were instrumental in my growth. They not only taught the curriculum but also inspired us to dream big and work hard. Their dedication and encouragement helped me to stay focused and motivated. I am truly grateful to all the teachers who guided and supported me throughout my diploma journey. Thank you, AMP, for giving direction to my career and helping me build a bright future.

Newsletter involves a call to action, a thank you message to the reader for subscribing, a brief reminder of upcoming events or important information, and a closing sign-off, often aiming to leave the reader with a positive impression and encourage continued engagement with the brand by hinting at future content or updates in the next newsletter. Mr. S. S. Mane, Head Of Department of Electronics & Computer Engineering, edited, printed and published the newsletter. You can send information questions and comments to ampvhodeco@gmail.com, Ashokrao Mane Polytechnic Vathar, 416112 Website:www.amietv.org

THEME OF NEXT ISSUE : DRONE TECHNOLOGY