Shri Balasaheb Mane Shikshan Prasarak Mandal ,Ambap's

ASHOKRAO MANE POLYTECHNIC

Vathar tarf Vadgaon , Tal - Hatkanangale , Dist - Kolhapur

ELECTRONICS AND COMPUTER ENGINEERING

NEWSLETTER : THE CONNECT

VOL-III:ISSUE-I, NOVEMBER 2025

THEME : "Drone Technology"

Insights.....

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

VISION :

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.

MESSAGE FROM PRINCIPAL DESK

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.

Dr. Y. R. Gurav
Principal
Ashokrao Mane Polytechnic ,Vathar

MESSAGE FROM EDITOR'S DESK

Mr. S. S. Mane
Head Of Department
Ashokrao Mane Polytechnic ,Vathar

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.

Induction Program

On 1st July 2025, the Department of Electronics and Computer Engineering organized its Induction Program to warmly welcome the newly admitted students. The Head of Department addressed the gathering, extending an encouraging welcome to second-year students, emphasizing the importance of discipline, curiosity, and technological innovation throughout their academic journey. During the program, department toppers were felicitated with bundles of notebooks in recognition of their remarkable academic achievements. This gesture not only celebrated their hard work but also inspired other students to strive for excellence. The induction also included an informative overview of departmental facilities, laboratories infrastructures, academic activities, and upcoming technical events planned for the year. Faculty members introduced themselves and briefly shared insights about the subjects they handle, career opportunities in electronics and computer engineering, and the importance of hands-on learning.

Senior students interacted with the newcomers, sharing valuable tips on managing academics, participating in extracurricular activities, and developing essential technical skills. The event successfully created a positive and motivating atmosphere, helping students feel confident and prepared as they began their new academic phase.

Guru Pournima

On 10th July 2025, the Electronics and Computer Department Engineering celebrated Guru Pournima with deep reverence and enthusiasm. The event was dedicated to honoring our respected teachers for their continuous guidance, inspiration, and unwavering support. The atmosphere was filled with positivity as students gathered to acknowledge the importance of the guru–shishya tradition. A heartfelt moment of the celebration came when students presented beautiful bouquets to their teachers as a token of gratitude. Along with this, the department also promoted environmental awareness by encouraging students to exchange saplings with one another. This symbolic gesture of "students giving trees to students" highlighted unity, growth, and shared responsibility toward nature.

In the final segment of the program, students delivered heartfelt speeches expressing their sincere appreciation for the teacher's dedication, patience, and continuous support. Many students shared memorable experiences and reflected on how their mentors contributed to their confidence, technical skills, and personal growth. To enhance the cultural spirit of the occasion, students also created a very beautiful rangoli related to Guru Pournima, symbolizing respect, tradition, and devotion. Additionally, students presented thoughtful gifts to the department, acknowledging the guidance and opportunities provided throughout the year. The department staff warmly appreciated these gestures, praising the creativity, enthusiasm, and teamwork displayed by the students. The celebration concluded on a joyous note with everyone taking group photographs, exchanging warm wishes, and leaving with a renewed sense of motivation, gratitude, and pride in their department.

Guest Lectures

Guest Lecture On "Implementation of Innovative and Startup Ideas"

On 8th August 2025, as per the MSBTE curriculum emphasizing Entrepreneurship Development, Innovation, and skill-based learning, the Department of Electronics and Computer Engineering organized a guest lecture on "Implementation of Innovative and Startup Ideas" for Second-Year Diploma students. The session was conducted by Mr. Suryakant Dodmise, CEO of Siddham Innovation and Business Incubation Center, Kolhapur, and focused on inspiring students to think creatively and pursue entrepreneurial ventures.

During the lecture, students learned how to transform ideas into startups, create effective business plans, and leverage incubation support, funding opportunities, and marketing strategies. Mr. Dodmise shared real-life success stories that motivated students to explore innovative solutions and actively engage in entrepreneurship. The session also emphasized the importance of market research, problem identification,and sustainable innovation.

Guest Lecture on "Wireless Communication"

On 08th October 2025, as per the MSBTE curriculum focusing on advanced communication systems, industry-oriented learning, and emerging technologies, the Department of Electronics and Computer Engineering organized a guest lecture for Third-Year students. The lecture was delivered by Mr. D. O. Shirsath, Assistant Professor, P.V.P. Institute of Technology, Budhgaon, on the topic "Wireless Communication".

Parent's Meet

On 8th September 2025, the Department of Electronics and Computer Engineering organized a Parents' Meeting. The event provided a platform for faculty members to interact with parents, discuss students' academic progress, achievements, and areas for improvement. It also aimed to strengthen collaboration between parents and the department, ensuring students receive the guidance and support needed to excel in their studies. Parents were encouraged to share their feedback and suggestions to enhance the learning experience. The meeting highlighted the importance of a strong home-college partnership in fostering student growth. Faculty members addressed queries regarding curriculum, extracurricular activities, and future opportunities. Overall, the event reinforced the department's commitment to holistic student development and academic excellence.

Additionally, the session emphasized the role of continuous communication between parents and faculty in addressing challenges early. Parents were informed about upcoming workshops, seminars, and events that could benefit students' overall learning. Success stories of students were shared to motivate both parents and students. The meeting concluded with a positive note, encouraging parents to actively participate in supporting their children's educational journey.

Teacher's Day Celebration




On 5th September 2025, the Electronics and Computer Department Engineering celebrated Teacher's Day with great enthusiasm. Students felicitated the teaching staff and expressed heartfelt gratitude for their invaluable guidance and support. The event highlighted the strong bond between teachers and students, making the day truly memorable. Cultural programs, including songs, skits, and speeches, were organized by the students to honor their mentors. Teachers shared their experiences, motivating students to strive for excellence in both academics and personal development. The celebration also included fun interactive sessions, games, and quizzes, which fostered a lively and engaging atmosphere. Overall, the event strengthened mutual respect and appreciation, leaving lasting memories for both students and faculty.

In addition, students presented handmade cards and gifts as tokens of appreciation. Faculty members encouraged students to continue their hard work and dedication. Many students expressed their gratitude personally, making the celebration heartfelt and meaningful. The event concluded with a group photo session, capturing the joyous moments shared between teachers and students. The celebration also inspired students to value mentorship and the role of teachers in shaping their future. It created a sense of unity within the department. Everyone left the event with a renewed sense of motivation and respect for educators. The Teacher's Day celebration also reinforced the importance of discipline, values, and lifelong learning among students. Such events play a vital role in nurturing a positive academic environment and strengthening departmental harmony. The active participation of students reflected their respect and admiration for their teachers. Overall, the celebration was a meaningful initiative that contributed to holistic development within the department.

Engineer's Day Celebration

On 15th September 2025, the Electronics and Computer Engineering Department enthusiastically celebrated Engineer's Day by organizing a vibrant poster presentation event for students. The program was inaugurated with the auspicious hands of Honorable Mr. Vijaysinh Ashokrao Mane, President of Shri. Balasaheb Mane Shikshan Prasarak Mandal, Ambap's and Director of Kolhapur District Central Cooperative Bank whose presence added great inspiration and prestige to the occasion. A total of 62 groups participated, showcasing their creativity and knowledge on a variety of contemporary topics such as Renewable Energy Resources, The Use of Digital Tools in Daily Life, IoT Applications, Awareness of Cybercrime, and Biodiversity. The event served as an excellent platform for students to explore and present innovative ideas.

The posters were evaluated by judges based on creativity, content, presentation, and relevance to current technological trends. Students actively engaged with visitors, explaining their concepts and answering questions, which significantly enhanced their communication and analytical skills.

The event encouraged teamwork and collaboration, helping participants develop essential professional attributes. Winners were felicitated with certificates and prizes, motivating others to strive for excellence. Faculty members appreciated the efforts of all students and encouraged them to continue exploring innovative solutions.

Industrial Visits

On 18th September 2025, as per the MSBTE curriculum emphasizing industry exposure, entrepreneurship development, and practical learning, the Electronics and Computer Engineering Department organized an industrial visit for second-year students to “Siddham Innovation and Business Incubation Center,” Kolhapur, an entrepreneurship-focused organization. This visit provided students with valuable insights into startup culture, innovation, and real-world industrial practices.The experts at Siddham Innovation and Business Incubation Center motivated students to think creatively and consider entrepreneurial ventures. Students were encouraged to develop innovative ideas, understand incubation facilities, and explore opportunities for launching their own startups.

On 19th September 2025, as per the MSBTE curriculum emphasizing industrial exposure, practical learning, and skill development, the Electronics and Computer Engineering Department organized an industrial visit for second-year students to “ELCOM International Pvt. Ltd., Kagal.” Located in Five Star MIDC, Kagal, the visit provided students with hands-on experience in switch production, assembly processes, and testing of extension boards using a PDU controller, thereby deepening their practical and theoretical understanding of electronics manufacturing.

During the visit, students observed various stages of the production line, quality control procedures, and safety practices followed in an industrial environment. The visit also allowed students to interact with industry professionals, who shared insights into real-world applications, career opportunities, and workplace discipline. Overall, the experience helped bridge the gap between classroom learning and industrial exposure

Faculty Speak

Mr. P. D. Shinde

Lecturer ECO Department

Ashokrao Mane Polytechnic,

Vathar Tarf Vadgaon

Introduction to Drone Technology

Drone technology, also known as Unmanned Aerial Vehicle (UAV) technology, refers to the design, development, and deployment of aircraft that can operate without a human pilot on board. Drones are equipped with sensors, cameras, GPS, and communication systems, allowing them to perform a wide range of tasks—from aerial photography and surveying to delivery services, agriculture monitoring, and disaster management. Their ability to access hard-to-reach areas safely and efficiently has made them indispensable in modern industry. With increasing integration of real-time data analytics and cloud connectivity, drones are becoming smarter and more adaptive than ever before.

Modern drones vary in size, design, and functionality, from small consumer drones to industrial and military-grade UAVs. Advances in autonomous navigation, artificial intelligence, and machine learning have made drones smarter, safer, and more versatile, enabling applications in logistics, surveillance, environmental research, and entertainment. The growing accessibility and affordability of drones have sparked innovation across multiple fields, making them an essential technology for the future.

Mrs. A. N. Patil

Lecturer ECO Department

Ashokrao Mane Polytechnic,

Vathar Tarf Vadgaon

Drones And Their Types

- **Consumer Drones:**

Small drones primarily used for recreation, photography, and videography. They are lightweight, easy to operate, and usually have basic cameras and GPS stabilization. Popular examples include DJI Mini series and Parrot Anafi. Use cases include aerial photography, travel videos, and hobby flying.

- **Commercial Drones:**

Designed for professional applications like delivery, agriculture, and surveying. They are more robust, have longer battery life, and can carry advanced sensors and payloads. Examples include DJI Matrice series and SenseFlyeBee. Use cases include crop monitoring, package delivery, and construction site mapping.

- **Industrial / Military Drones:**

Used for surveillance, defense, logistics, and high-risk operations. These drones have high endurance, sophisticated sensors, and can carry large payloads. Examples include MQ-9 Reaper and RQ-4 Global Hawk. Use cases include border patrol, reconnaissance, disaster response, and infrastructure inspection.

- **Drone Flight Designs:**

Fixed-wing drones are efficient for long distances but cannot hover. Multi-rotor drones can hover and are highly maneuverable, while hybrid drones combine both features for long range and VTOL capability.

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Student Speak

Mr. Swaraj B. Khot
Third Year Student
Ashokrao Mane Polytechnic,
Vathar Tarf Vadgaon

Applications of Drones

I] Agriculture:

Drones monitor crop health, detect diseases, and spray fertilizers or pesticides efficiently.They help farmers save time and reduce labor costs. Advanced sensors provide precise data for better yield management.

II] Surveillance & Security:

They assist in border patrol, crowd monitoring, and disaster management operations. Drones can cover large areas quickly and provide real-time footage. This enhances safety and response efficiency in critical situations.

III] Delivery Services:

Drones transport packages, medicines, and urgent supplies quickly and safely. They reduce delivery time and can reach remote or hard-to-access areas. Companies are increasingly adopting drones for faster logistics solutions.

IV] Aerial Photography & Cinematography:

Capture high-quality images and videos from unique aerial perspectives. Drones allow creative shots that are difficult or impossible with traditional equipment. They are widely used in filmmaking, advertising, and real estate.

Ms. Sayali G. Mandale
Third Year Student
Ashokrao Mane Polytechnic,
Vathar Tarf Vadgaon

Advantages of Drones:

I]Access to Hard-to-Reach Areas:

Drones can easily reach locations that are difficult or dangerous for humans, such as high-rise structures, disaster zones, or remote terrains. This capability allows inspections, surveys, and monitoring in places that would otherwise be inaccessible. They can also navigate challenging terrains like mountains, forests, or offshore sites with ease.

II]Cost-Effective Compared to Manned Systems:

Using drones reduces the need for expensive manned aircraft, helicopters, or large field crews.They offer an affordable alternative for tasks like aerial surveys, photography, and industrial inspections.Operational costs, fuel, and maintenance are significantly lower than traditional manned systems.This makes drones a practical solution for small businesses, research teams, and government projects.

III]Increased Safety for Dangerous Tasks:

Drones can perform operations in hazardous environments, such as disaster zones, high-voltage areas, or toxic sites.This minimizes risk to human lives while still completing critical tasks efficiently.They can inspect unstable buildings, monitor volcanic activity, or survey flood-affected areas safely.

IV]Real-Time Data Collection and Monitoring:

Equipped with sensors and cameras, drones provide instant data and live video feeds.This enables quick decision-making, efficient monitoring, and timely response in various industries.

Co-Curricular Activities

On 4th October 2025, Ms. Shweta Masal and Ms. Anushka Kumbhar from the Electronics and Computer Engineering Department (SY E&CO) secured 2nd Rank in the "Paper Presentation Competition" organized by Sharad Institute of Technology, Yadrav.

On 15th September 2025, Ms. Sayali Mandale and Ms. Maithili Nikam (TY ECO) secured 1st rank in the "Debate Competition" organized by the Computer Department at Ashokrao Mane Polytechnic,Vathar. Their achievement showcased the debating skills and confidence of students from the Electronics and Computer Engineering Department.

On 15th September 2025, Ms. Prajkta Surve and Ms. Suhani Tinge (SY ECO) secured 2nd rank in the "Poster Presentation Competition" organized by the Electronics and Computer Engineering Department at Ashokrao Mane Polytechnic,Vathar.

On 15th September 2025, Mr. Samruddh Kagale and Mr. Atharv Jadhav (SY ECO) from the Electronics and Computer Engineering Department received the Consolation Prize in the “Poster Presentation Competition” organized by the Electronics and Computer Engineering Department at Ashokrao Mane Polytechnic,Vathar.

Extra-Curricular Activities

On 1st October 2025 , Second-Year girls from the Electronics and Computer Engineering Department won the First Prize in the Dandiya event organized by Ashokrao Mane Polytechnic, Vathar. Their energetic performance, coordinated moves, and vibrant traditional attire captured the attention of the audience and judges alike. The team showcased excellent teamwork, creativity, and enthusiasm throughout the competition. Their achievement added pride to the department and highlighted the students' active participation in cultural activities.

1st October 2025, Second-Year students from the Electronics and Computer Engineering Department won the Second Prize in the Dandiya event organized by Ashokrao Mane Polytechnic, Vathar. Their lively performance, synchronized dance steps, and traditional attire impressed both the audience and judges. The students showcased excellent coordination, enthusiasm, and cultural spirit throughout the event. Their achievement brought pride to the department and encouraged greater participation in extracurricular activities.

Faculty Achievements

Mr. Sunil Shankar Mane, Head of the Electronics and Computer Engineering Department, successfully completed the NPTEL online course on Digital Circuits. He achieved a commendable score of 55% in this 12-week course. The course strengthened his understanding of fundamental and advanced concepts in digital electronics.It also enhanced his academic expertise and teaching effectiveness in the core subject area. His dedication to continuous professional development reflects his commitment to academic excellence. This achievement will positively contribute to the quality of education and guidance provided to students.

Ms. Nishigandha Shivaji Bondre, faculty of the Electronics and Computer Engineering Department, successfully completed the NPTEL online course on Artificial Intelligence: Concepts and Techniques. She achieved a commendable score of 72% in this 12-week course. The course enhanced her understanding of core artificial intelligence principles and modern techniques. It strengthened her ability to integrate AI concepts into teaching and academic activities. Her achievement reflects a strong commitment to continuous learning and professional growth. This accomplishment will benefit students through improved instruction and updated subject knowledge.

Student Achievement

MSBTE Exam

ACADEMIC TOPPER'S (SUMMER -25)

Third Year Toppers

Miss. Shreya Babaso Patil
91.35%
(1st Rank)

Miss. Aparna Ashok Mane
90.82%
(2nd Rank)

Mr. Tohid Ashapakh Sanade
87.06%
(3rd Rank)

Second Year Toppers

Miss. Shrusti Basgonda Patil
79.34%
(1st Rank)

Mr. Swaraj Bramhanath Khot
77.63%
(2nd Rank)

Miss Sanika Shahaji Patil
77.53%
(3rd Rank)

First Year Toppers

Miss. Anushka Sandip Kumbhar
88.71%
(1st Rank)

Mr. Shubham Ekanath Dalavi
87.71%
(2nd Rank)

Miss. Chaitrali Rahul Devkule
86.88%
(3rd Rank)

Success Story

SUCCESS STORY

Mr. Jatin Patil
ELYA Digital, Thane
(Software Developer)

I am Mr. Jatin Patil. I had taken admission at Ashokrao Mane Polytechnic in Electronics and Telecommunication Engineering in the year 2016–17. Now I am working as a Software Developer at ELYA Digital, Thane, with an annual package of 10 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 essential 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 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.

The strong academic foundation and practical exposure I received at AMP prepared me to face real-world challenges with confidence. I proudly acknowledge AMP as a key contributor to my success and achievements.

THEME OF NEXT ISSUE : IOT