AMP
NEWS LETTER
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Shri Balasaheb Mane Shikshan Prasarak Mandal's

ASHOKRAO MANE POLYTECHNIC

Vathar Tarf Vadgaon, Tal- Hatkanangale, Dist- Kolhapur (MS) 416112

INSIDE

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ABOUT 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 like Best Engineering College in Maharashtra by ABP Maza, National Excellence Award by Indian Society for Technical Education and State level Vidyasevak award by Anna Bhau Sathe Prathisthan.

AMP believes in providing students with hands-on training that will further hone their technical skills with soft skills. We believe in giving our students, the competitive advantage in the business world. The institute always encourages students to create innovative projectsthrough which students have developed different scaled, engineering and architectural models.

Apart from the prescribed curriculum by the MSBTE, our college structures customized special programs based on specific requirements of the industry with a focus on priorities. Periodic quality audits are conducted to ensure effective teaching, class room management, efficient documentation and judicious review of teaching learning process. The institute is also having good placement infrastructure and consistent history of great placements.

The institute is always engaged in community development through NSS programs like Eco friendly Ganesh Visarjan, Tree Plantation, Fire safety awareness program and Charity work

VISION

Achieve excellence in quality technical education to create competent technocrats with ethical and social responsibilities for the betterment of society.

MISSION

M1 - To provide a scholarly and vibrant learning environment that enables students to achieve professional growth.

M2 - To impart quality technical education with emerging technology to fulfill industrial requirements.

M3 - To develop culture for holistic development of an individual, including social as well as ethical responsibilities.

M4 - To strengthen relationships with industries for empowering the students to work in adverse conditions.

MESSAGE FROM PRESIDENT, BMSPM AMBAP

Dear Students, Faculty, Alumni, and Readers,

It is with immense pride and joy that I address you through this edition of our college newsletter. Our institution has come a long way in its journey to become a leading name in diploma engineering education, and it is truly a moment of celebration and reflection for all of us. Over the years, our college has consistently demonstrated its commitment to excellence in technical education. We have strived to blend academic rigor with hands-on experience, preparing our students to meet the demands of a rapidly evolving world. This commitment has been recognized by industry leaders, academic peers, and society at large, positioning us as a benchmark for quality diploma education.

Our Ashokrao Mane Group fondly known as AMG is not just a collection of academic departments but a vibrant community united by a shared mission: to deliver excellence in education while fostering innovation, ethical values, and a deep sense of responsibility toward society. In technical education, we continue to equip students with the skills and knowledge to excel in engineering and technology. Our medical and pharmaceutical colleges are shaping future healthcare professionals committed to advancing patient care and medical research. Meanwhile, our schools lay a strong foundation for young minds, instilling curiosity, creativity, and a thirst for knowledge.

As we move forward, I encourage all of you to embrace this journey with enthusiasm and purpose. Together, we will continue to build a group of educational institutions that not only imparts knowledge but also shapes futures, transforms lives, and contributes to the betterment of the society.

Hon. Shri Vijaysinh Mane

MESSAGE FROM EXE. PRESIDENT BMSPM AMBAP

It gives me great pleasure to communicate through this newsletter. The quality of our lives is greatly impacted by the work of engineers. Engineers design and develop systems and mechanisms for providing basic amenities like water, food, shelter, energy, health care for a comfortable life.We at Ashokrao Mane Polytechnic are committed to empowering students with advanced technical knowledge, appropriate skills and values through quality engineering education with a view of building competent professionals and enterprise leaders who will successfully face increasing competition and challenges. We have relevant infrastructure, equipment, educational materials, resources, and a teaching force.

As reported in the newsletter, we pay special attention to carrying out social, curricular and extracurricular activities for the holistic development of students. I congratulate all staff members and the editorial team and wish you all the best for your future endeavors.

Hon. Shri Vikasrao Mane

MESSAGE FROM DIRECTOR BMSPM AMBAP

As we reflect on what we have achieved so far, it has been a period of accelerated growth towards achieving our vision. We have created home for mind, body, and spirit like a center for health and wellness at the heart of our campus. All this was made possible by our faculty, employer industries, and our supporters. Our well educated and experienced faculty are updating their knowledge and skills through different faculty development programs and training programs. Unwavering dedication and hard work of our faculty have greatly contributed to leading the way in the region. We are preparing students for a new technological era in creative fields, and students are reaching great heights of success. This newsletter recognizes these achievements and many more. My best wishes to all of you.

Hon. Mrs. Manisha Mane

MESSAGE FROM PRINCIPAL AMP VATHAR

It is a great pleasure for me to welcome you to Ashokrao Mane Polytechnic. In this very dynamic and competitive educational environment, the college is in the process of providing quality education and re-position itself to meet the challenges.

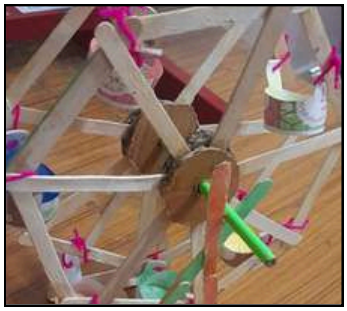
Meeting and Coping with the Emerging Challenges is the prime function of today's students.To do this, it requires keen perception, flexibility, and the ability to merge theories into action plans. We believe in providing students with hands-on training that will further hone their technical skills with soft skills. We believe in giving our students the competitive advantage in the business world by encouraging them to be inquisitive and make informed choices. Apart from the prescribed curriculum by the MSBTE, our college structures customized special programs based on specific requirements of the industry with a focus on priorities. Periodic quality audits are conducted to ensure effective teaching, classroom management, efficient documentation and judicious review of teaching learning process.

Ashokrao Mane Polytechnic is committed to play a key role in creating an ambience for nurturing the leaders of tomorrow. In doing so, we hope to make significant contributions to the development of the country and improvement in the quality of life of its citizens. I welcome you to explore our College as we commit ourselves to reach even greater heights.

Dr. Y. R. Gurav

TEACHERS DAY CELEBRATION

Best From Waste Competition

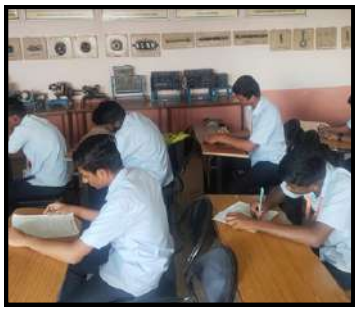



On the occasion of Teachers' Day, the Automobile Engineering Department of Ashokrao Mane Polytechnic organized an event titled "Best from Waste." This event aimed to encourage creativity and innovation among students by challenging them to create useful items from various scraps and waste materials.

Oratorical Competition


On the occasion of Teacher's Day, on 5th September 2024, the Automobile Engineering Department of Ashokrao Mane Polytechnic, Vathar Tarf Vadgaon, Kolhapur, organized an oratorical competition to honor and appreciate the invaluable contributions of teachers. The event aimed to foster communication skills among students while reflecting on the significance of teachers in shaping their lives.

Handwriting Competition




The Automobile Engineering Department of our college hosted a Handwriting Competition on September 05, 2024, on the occasion of Teacher's Day aimed at celebrating and enhancing the art of handwriting among students. The competition was held in two languages: Marathi and English, catering to the diverse linguistic backgrounds of our student body.




Teacher's day is celebrated by the Department of Computer Engineering in the remembrance of Dr. Sarvapalli Radhakrushnan. Celebrating this event gives motivation and stage daring to students.Also it helps to enhance the communication skills in students. Number of students enthusiastically took part in this event. Best teacher award among the participating students was given away by Hon. Principal Dr. Y. R. Gurav and HOD Dr. S.A.Lakade.


On 5th September 2024, the students came together to celebrate Teachers' Day, honoring the dedication and hard work of our teachers. The event aimed to express gratitude and appreciation for their invaluable contributions to our lives. In the weeks leading up to the celebration, students planned various activities to make the day memorable. Committees were formed for decoration, program planning, and coordination.

On the occasion of Teachers' Day, the students organized lectures to showcase their learning and skills while honoring their teachers. The practical lectures took place in various classrooms allowing students to engage directly with their teachers and demonstrate their understanding of different subjects. The lectures organized by students on Teachers' Day were a resounding success.

Students organized a welcome ceremony. Principal,Dr. Y. R. Gurav was the chief guest for the ceremony. HOD. Mr. S. S. Mane,teaching and non-teaching staff members were present. Other outstanding students conducting lectures were also awarded. The Teachers' Day celebration was filled with joy, laughter, and heartfelt appreciation. Students left with a deeper understanding of the dedication their teachers exhibit daily.




Teacher's Day was celebrated by students and staff members of Mechanical Engineering Department of AMP by organizing various events.

On the occasion of the Teacher's Day, Mechanical Engineering Department had proudly organized three events on 5th of September 2024.

1. Lecture conduction by students.
2. Puzzle Champion Event.
3. Tree plantation and prize distribution event.

The day was started with the lightening of the lamp and pratima poojan of Goddess Sarasvati, at the hands of Dr. Y. R. Gurav (Principal AMP Vathar), accompanied by faculty members and students.


Teacher's day is celebrated on 5 September each year on the occasion of the birth anniversary of Dr. Sarvapalli Radhakrishnan, who is known as an amazing teacher of his time. This day was celebrated by students & staff members of Applied Science and Humanities Department of AMP by organizing an event. The event was organized on 5 September 2024.

The day was started with lightening of lamp & pratima poojan of Goddess Saraswati & Dr. Sarvapalli Radhakrishnan at the hands of Dr. Y. R. Gurav (Principal AMP, Vathar) accompanied by faculty members & students.

After that lectures were conducted by students. The program was ended with valedictory function.

GURU POURNIMA CELEBRATION

The students and faculty of the Civil Engineering department came together to celebrate the auspicious occasion of Guru Purnima, a day dedicated to expressing gratitude and respect toward teachers and mentors. The event witnessed enthusiastic participation from students, staff, and invited guests. The highlight of the event was an inspiring keynote address by Mr. P. T. Hasbe [Academic Coordinator], who emphasized the role of teachers in shaping students' lives and fostering a culture of lifelong learning. The speaker shared valuable insights into the traditional Guru-Shishya relationship and its relevance in today's modern world.

The Guru Purnima celebration was a heartfelt tribute to the guiding lights of our lives, leaving everyone with a renewed sense of respect and admiration for their teachers. The event truly embodied the spirit of gratitude and reverence, making it a memorable day for all.

Pratima poojan of Goddess Sarasvati, at the hands of Prof. Y. R. Gurav (Principal AMP, Vathar)

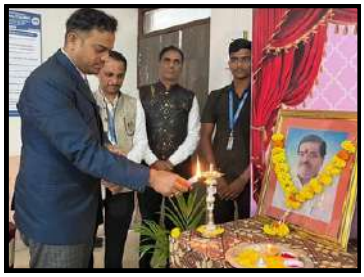
This auspicious day was celebrated with great joy and enthusiasm on 20th July, 2024 at Ashokrao Mane Polytechnic Vathar, by Mechanical Engineering Department in association with MESA (Mechanical Engineering Student Association). This event was celebrated in presence of students and faculty members of the department. Celebration started with lightening of the lamp and pratima poojan of Goddess Sarasvati, at the hands of Dr. Y. R. Gurav (Principal AMP, Vathar) accompanied by faculty members and students. On this occasion many students were given the opportunity to deliver speeches in which they shared their thoughts and experiences, expressing their gratitude towards the teachers who had played a significant role in shaping their lives and academic journeys.

ENGINEERS DAY CELEBRATION

The inauguration of the "Palm City Model and Burj Khalifa Model" by Dr. Y. R. Gurav, Principal Ashokrao Mane Polytechnic, Vathar tarf Vadgaon.

On the occasion of Engineers' Day, the Civil Engineering Department organized a grand celebration to honor the contributions of engineers to society. The highlight of the event was the meticulous and innovative models of the Burj Khalifa and Palm Island, created by a team of civil engineering students. These models showcased their creativity, technical knowledge, and dedication to engineering excellence.

The aim of the event was to inspire innovation, demonstrate the importance of civil engineering in shaping the modern world, and pay tribute to legendary engineer Sir M. Visvesvaraya.



Students performing in the first round of matching and assembling nuts and bolts in Assembly Champ Event

Assembly Champ Event:

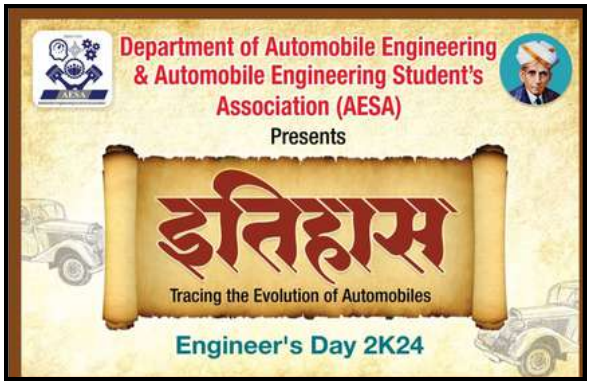
"Assembly Champ" competition was organised and conducted by the students of Mechanical Engineering Department under the guidance of competition coordinators Mr. S. B. Lambe and Mr. R. P. Bagewadi. This competition was conducted in two rounds. The first round was carried out as screening round in which students were to match and assemble the correct pair out of the given nuts and bolts. In the second round the shortlisted students from the first round were given the task to assemble the disassembled parts of the tail-stock assembly of the lathe machine. The first two students who completed the assembly in minimum time were awarded the first two ranks. A Total of 205 students had participated in this competition.

Auto Art

In celebration of Engineers' Day, the Automobile Engineering Department of Ashokrao Mane Polytechnic organized an automobile drawing competition titled "Auto-Art" on 14th September 2024. The competition, coordinated by Mr. R.G. Katkar, aimed to encourage creativity and technical skills among students while fostering a deeper understanding of automobile design.

Exhibition

"ITIHAS - Tracing the Evolution of Automobiles"




The exhibition titled "ITIHAS - Tracing the Evolution of Automobiles" showcased the rich history and technological advancements in the automobile industry. Organized by the Automobile Engineering Department in collaboration with the Automobile Engineering Students Association (AESA), the event aimed to educate attendees about the milestones in automotive history, from early inventions to modern innovations.

Web Designing


Reel Master


Department of Computer Engineering in association with COMPESA has celebrated engineer's day followed by two state-level technical events Web Designing and Reell Master. In this event, students from different engineering colleges have took part. Students showed off their skills by building various websites and from the Reel Master competition, students presented different types of reels emerging with new trends as well as they showcased their talent. We also felicitated the great engineers and remembered the great Mokshgundam Visvesvaraya.

Also on this day we motivated students to express their thoughts on great engineers and how the evaluation of engineering occurred from past decades to till onwards. The department staff had given a wonderful message to students for becoming great engineers in the future.

Dignitaries observing the event "Circuit Master"

On the occasion of Engineers day, the Electrical Engineering Department had proudly organized a competition for all students of Ashokrao Mane Polytechnic Vathar on 15 September 2024.

The inaugural & welcome function was carried out in the presence of Dr.Y. R. Gurav (AMPV), Mr. B. V. Kumbhar (HOD Electrical Engineering) and all other dignitaries.

The **"Circuit Master"** competition was organized by students of the Electrical Engineering department under the guidance of faculty members.

The event was ended with prize distribution.


On 13 September 2024, our Electronics and Computer department celebrated Engineers Day with two engaging events: a "Poster Presentation" and a "Simulation Smackdown." Students showcased their creativity and technical skills through informative posters. The simulation Smackdown featured two exciting rounds: the first round tested participants' aptitude skills, while the second round challenged them to build circuits using Multi sim. This format encouraged critical thinking and teamwork. Both events not only honored the contributions of engineers but also inspired students to engage actively in their learning and development, making it a memorable day for all.


Mr. R. G. Katkar,
Lecturer,
Automobile Engineering

Artificial Intelligence For Automobile Engineering

Artificial Intelligence (AI) is revolutionizing the automobile industry, bringing transformative changes that redefine the way vehicles are designed, manufactured, and utilized. Among the most groundbreaking advancements is the development of autonomous vehicles, also known as self-driving cars. These vehicles rely on AI-powered systems equipped with sensors, cameras, and radar to interpret their surroundings, make decisions, and navigate without human intervention. Companies like Tesla and Waymo are leading this innovation, promising safer roads, reduced traffic congestion, and improved accessibility for people with mobility challenges.

Tesla Cyber cab and Waymo One are two AI cars currently available in the market. AI also plays a pivotal role in predictive maintenance, where advanced algorithms analyse data from vehicle sensors to anticipate potential failures or maintenance needs. This proactive approach reduces unexpected breakdowns, minimizes costs, and enhances vehicle longevity, particularly benefiting fleet management operations. In manufacturing,

AI optimizes processes through robotics and machine learning, enabling high precision, reducing errors, and ensuring stringent quality control by detecting defects in real-time. The integration of AI enhances the driving experience with features like adaptive cruise control, lane-keeping assistance, and voice-activated assistants. Drivers can enjoy a seamless, personalized experience, with real-time traffic updates and route optimization improving journey efficiency. AI also supports sustainability efforts by optimizing fuel efficiency and battery management in electric vehicles (EVs). Smart charging stations and energy usage monitoring promote eco-friendly practices, while advancements in AI continue to shape EV infrastructure. Safety remains a critical focus area where AI demonstrates its potential through automatic emergency braking, collision avoidance systems, and driver monitoring. These features detect hazards and intervene when necessary, significantly reducing accident risks.

Mr. N. Y. Patil,
Lecturer,
Mechanical Engineering

Introduction to Kaizen Technology

Kaizen is a Japanese word that means “continuous improvement.” It is a philosophy that says, “Do better every day, with everyone, and everywhere.” It is a technique on the applications of which we can see the improvement in every function of business from marketing to finance to the warehouse. This technique focuses on every minor everyday improvement to current work processes, carried out by each and every working person, from ground-level workmen to executives. The Kaizen philosophy challenges the statement of “that’s just the way we do things.” Through micro-changes, it strives to eliminate silos, egos, and waste and instead aims for efficient and standardized processes, especially in areas like quality, cost, delivery, management, and safety. Another benefit is that with the implementation of this method one can achieve matching of organization goals to needs of employee. By applying kaizen, small incremental improvements can deliver significant results in terms of organizational goals as well as fulfill essential needs of employees by engaging them and developing a culture of continuous improvement.

Mr. V. S. Surve,
Lecturer,
Civil Engineering

Revolutionizing Surveying with Drone Technology

In recent years, technological advancements have significantly reshaped the civil engineering landscape, and drone surveying stands out as a transformative innovation. As a faculty member deeply engaged in the evolving practices of engineering education, I am thrilled to highlight the remarkable potential of drone technology in modern surveying.

Drones, or Unmanned Aerial Vehicles (UAVs), have introduced unprecedented precision, efficiency, and accessibility in data collection for surveying tasks. Traditional methods, while reliable, are often labor-intensive and time-consuming. Drone surveying not only accelerates the process but also enables us to access difficult or hazardous terrains with ease and safety.

The integration of drones equipped with high-resolution cameras and LiDAR technology allows for the generation of accurate topographic maps, 3D models, and orthophotos. These outputs are invaluable for a wide range of applications, including infrastructure planning, environmental monitoring, and disaster management. Furthermore, the ability to capture real-time data provides engineers and planners with actionable insights, fostering better decision-making.

At our institution, we recognize the importance of staying at the forefront of technological advancements. Introducing students to drone surveying techniques is not just about enhancing their technical skills—it’s about preparing them for a future where innovation drives the construction and planning industries.

Mr. J. I. Tamboli,
Lecturer,
Electronics and Computer Engineering

Automation in Electronics Engineering

Automation as “the technique of making an apparatus, a process, or a system operate automatically.” We define automation as "the creation and application of technology to monitor and control the production and delivery of products and services.”

Using our definition, the automation profession includes "everyone involved in the creation and application of technology to monitor and control the production and delivery of products and services," and the automation professional is "any individual involved in the creation and application of technology to monitor and control the production and delivery of products and services." Automation crosses all functions within industry from installation, integration, and maintenance to design, procurement, and management. Automation even reaches into the marketing and sales functions of these industries. Automation software and technologies are used in a wide array of industries, from finance to healthcare, utilities to defense, and practically everywhere in between. Automation can be used in all aspects of business functions, and organizations that wield it most effectively.

Ms. H. J. Patil
Lecturer,
Computer Engineering

Neuromorphic Technology: The Next Step in AI Evolution

Artificial Intelligence (AI) has already revolutionized various aspects of our lives, from personal assistants like Siri to medical imaging technologies that aid doctors in diagnosing diseases. Yet, we are only scratching the surface of what AI can achieve. The next significant leap in AI evolution lies in neuromorphic technology—a groundbreaking approach inspired by the structure and function of the human brain. Neuromorphic technology represents one of the most exciting frontiers in computer science and artificial intelligence (AI). Inspired by the structure and function of the human brain, neuromorphic computing attempts to replicate how biological neural networks process information. Neuromorphic computing is an innovative field that emulates the structure and functioning of the human brain to create more energy-efficient, adaptive, and intelligent computational systems. It uses spiking neural networks (SNNs), which mimic the way biological neurons communicate by transmitting information in the form of discrete spikes. Unlike traditional computing, which processes data continuously, neuromorphic systems react to events in real-time, making them highly energy-efficient.

These systems can learn and adapt through processes similar to synaptic plasticity, enabling real-time decision-making in applications like robotics, AI, machine learning, and brain-computer interfaces. Neuromorphic computing holds significant potential for solving complex problems while reducing power consumption.

1. Artificial Neurons and Synapses: Just as biological neurons fire electrical impulses to communicate, artificial neurons in neuromorphic systems use electronic circuits to simulate this behavior.
2. Spiking Neural Networks (SNNs): Unlike traditional neural networks that rely on continuous values, SNNs transmit information as discrete spikes.
3. Hardware and Software Integration: Neuromorphic technology integrates both hardware (e.g., neuromorphic chips) and software (spiking neural network algorithms) to achieve brain-like computation.

Mrs. T. U. Alatkar
Lecturer,
Applied Science & Humanities

Humanities in Artificial Intelligence

AI has the potential to transform various aspects of our society, economy, and culture, as well as to create new opportunities and challenges for human development and well-being. However, AI also raises many complex and profound questions that go beyond the technical and scientific domains. These questions concern the ethical, social, and cultural implications of AI, such as its impact on human values, rights, dignity, identity, and creativity. The arts and humanities are fields of inquiry that explore the human condition in all its richness and complexity. They encompass disciplines such as history, philosophy, literature, language, art, music, religion, and cultural studies. They offer us valuable insights into the historical, philosophical, and cultural dimensions of AI, as well as alternative perspectives and visions that can challenge the dominant or mainstream views. They also enable us to express and communicate our ideas, emotions, and values through various forms of creative and artistic expression.

The arts and humanities can also help us challenge these narratives by exposing their underlying assumptions and interests that may be hidden or implicit.

Mrs. R. A. Patil
Lecturer,
Electrical Engineering Department

Electronic Vehicle: The Future of India

EV batteries are typically made of lithium-ion cells, similar to those in laptops and smartphones, but much larger and more powerful. The battery's capacity (measured in kilowatt-hours or kWh) determines how far the vehicle can travel on a single charge (its range). When electricity flows from the battery to the motor, it creates a magnetic field that causes the motor to spin. This rotational motion is transferred to the wheels, propelling the vehicle forward. The inverter also controls the amount of power sent to the motor, regulating the vehicle's speed and acceleration.

The controller acts as the "brain" of the EV, managing the flow of energy between the battery, motor, and other components. It receives input from the driver (through the accelerator and brake pedals) and adjusts the motor's output accordingly. EV batteries are recharged by plugging the vehicle into an external power source. This can be a standard household outlet (Level 1 charging), a dedicated home charging station (Level 2 charging), or a public fast-charging station (DC fast charging). The charging system includes an onboard charger that converts AC power from the grid to DC power for the battery. In essence, EVs use electricity stored in batteries to power an electric motor, which then drives the wheels. This process is much more efficient than burning gasoline in an internal combustion engine, resulting in lower running costs and zero tailpipe emissions.

Mr. Devraj S. Suryawanshi
Student
Second Year Civil Engineering

Exploring the World of Photogrammetry

Photogrammetry, a fascinating blend of science and technology, has opened new horizons for surveying and mapping. As a diploma student deeply interested in the field of civil engineering, I am excited to share my thoughts on how photogrammetry is shaping the way we perceive and analyze the world around us.

Photogrammetry, simply put, is the art and science of extracting measurements and creating maps from photographs. Using overlapping images captured from different angles, this technique generates precise 3D models of objects, terrains, or structures. The integration of advanced tools like drones, high-resolution cameras, and specialized software has further enhanced the capabilities of photogrammetry, making it an indispensable tool in various industries. In civil engineering, photogrammetry plays a vital role in projects like road alignment, topographic surveys, and urban planning. For instance, aerial photogrammetry helps create accurate digital elevation models (DEMs) and orthophotos, which are crucial for infrastructure development.

Beyond engineering, it finds applications in archaeology, agriculture, environmental monitoring, and even film production, where realistic 3D environments are created. As students, learning photogrammetry has been an exciting journey. It has taught us how to collect and process data using cutting-edge software like Auto CAD Civil 3D and Agisoft Metashape. Understanding the intricacies of image overlap, ground control points (GCPs), and coordinate systems has deepened our appreciation for the precision required in engineering tasks. One of the biggest advantages of photogrammetry is its efficiency. It allows us to survey large areas quickly and with incredible accuracy. Unlike traditional methods, it minimizes physical effort and maximizes safety by enabling remote data collection.

Mr. Dnyanraj Krushnat Mohite
Student,
Third Year Automobile Engineering

Current Opportunities in Automobile Engineering

The automobile industry is undergoing significant transformation, driven by the integration of Artificial Intelligence (AI) technologies. AI is enabling automakers to innovate in a wide array of areas, from vehicle design and manufacturing to the driving experience and maintenance. Below are some current opportunities in AI within the automotive industry:

1. Autonomous Vehicles:

Self-Driving Cars: AI is at the core of autonomous vehicles, enabling them to navigate, understand their environment, make decisions without human input. Companies like Tesla, Waymo, and others are heavily investing in machine learning, computer vision, and sensor fusion to improve the safety, efficiency, and reliability of self-driving technology.Advanced Driver Assistance Systems (ADAS): AI is also being utilized to enhance driver assistance systems such as lane-keeping, automatic emergency braking, and adaptive cruise control. These systems are designed to improve road safety and assist drivers in various traffic conditions.

2. AI in Traffic Management and Optimization: Voice Assistants and Natural Language Processing (NLP): AI-powered voice assistants, such as Amazon Alexa or Google Assistant, are being integrated into vehicles, allowing drivers and passengers to interact with the car in a more natural way. This includes voice-activated navigation, media control, and vehicle settings adjustment.

3. In-Car AI and Personalization: Emotion Detection: Some companies are exploring the use of AI to detect driver emotions using sensors and cameras. This can help the vehicle adjust features (e.g., temperature, music) to improve the mood or alert the driver when they are fatigued or distracted. Personalized Driving Experience: AI can learn from driver behavior and preferences to offer a more personalized experience. This could include adjusting seat positions, climate control, infotainment, and driving modes based on individual preferences.

Ms. Aparna Ashok Mane
Student,
Third Year Electronics & Computer Engineering

Benefits of Automation

1. Higher efficiency and productivity

Automation streamlines workflows, cutting down on task completion time.

2. Enhanced accuracy and consistency

Automated systems execute tasks with exactness and reliability, reducing the errors commonly found in manual labor.

3. Cost reduction

Although the upfront costs of adopting automation technology can be substantial, the enduring advantages surpass these expenses.

4. Improved safety

Automation is crucial in mitigating the risks associated with hazardous or physically demanding tasks.

5. Easy scalability and flexibility

Automated systems swiftly respond to shifts in requirements and can efficiently expand operations.

6. Enhanced decision-making through data insights.

Standardization and Cleaner Data

As we've discussed, one of the advantages of automating processes is that the way information is handled is standardized, so there's no need to go back and clean up any data your company may have.

A key element of growing your organization is having measurable goals, and then tracking defined key performance indicators.

Mr. Pruthesh Upadhye
Student,
Third Year Computer Engineering

Cloud Computing

Cloud computing delivers on-demand IT resources, such as servers, storage, databases, networking, software, and analytics, through the internet. Instead of owning physical data centers or servers, users can rent computing power and storage on a pay-as-you-go basis.

Characteristics of Cloud Computing :

1. On-Demand Self-Service: Users can provision computing capabilities as needed without requiring human interaction with service providers.
2. Broad Network Access: Resources are accessible over the internet using various devices like laptops, smartphones, or tablets.
3. Resource Pooling: Multiple users share computing resources, dynamically allocated based on demand.
4. Scalability: Users can scale resources up or down depending on their needs.
5. Measured Service: Pay-per-use pricing based on resource consumption.

Cloud Service Models (SPI Model) :

1. SaaS (Software as a Service):
• Access software applications over the internet. Examples: Gmail, Microsoft Office 365, Dropbox.
2. PaaS (Platform as a Service):
• Provides platforms for application development without managing underlying infrastructure.
• Examples: Google App Engine, Heroku, AWS Elastic Beanstalk.
3. IaaS (Infrastructure as a Service):
• Offers virtualized computing resources like servers, storage, and networking.
• Examples: AWS EC2, Microsoft Azure VMs, Google Compute Engine.

Mr. P. T. Patil
Student,
Second Year Electrical Engineering

Electronic Vehicle : Challenges Regarding Environmental Pollution

We live in a world where environmental challenges like pollution and climate change threaten the planet we call home.Traditional vehicles,powered by fossil fuels,are one of the biggest contributors to these problems.But here's the good news: electric vehicles,powered by green energy,offer a sustainable solution. Ev's don't emit harmful gases like petrol or diesel cars. They are clean,efficient ,and quieter,reducing both air and noise pollution. Imagine cities with fresh air,free from smog-this can be our reality with EVs.Let's step forward to embrace electric vehicles and green energy,not just as technologies but as tools to protect our future,because the journey to a greener tomorrow starts today,with E vehicles.

Charging Evs with green energy sources like solar,wind and hydropower ensures we're not just reducing pollution on the road but also where the energy comes from. Green energy is renewable, abundant, and eco-friendly.As students,we are the future innovators,consumers,and decision-makers.We can advocate for the use of Evs and renewable energy. Simple actions like spreading awareness can make a big difference. Imagine a world where every car is electric,powered by the sun or the wind. A world where energy is clean,and the planet is healthy.This isn't just a dream –it's a goal we can achieve with commitment and action.To support the growth of renewable energy and smart EV charging infrastructure, governments and private organizations must collaborate to invest in research and development and provide incentives for the deployment of clean energy and charging systems.

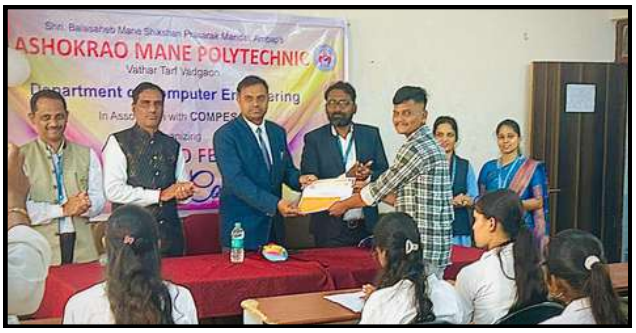
Miss. Tanvi S. Patil
Student,
Seconnd Year Mechanical Engineering

The History of Kaizen Technology

Kaizen is an approach to creating continuous improvement based on the idea that small, ongoing positive changes can reap significant improvements. Typically, it is based on cooperation and commitment and stands in contrast to approaches that use radical or top-down changes to achieve transformation. Kaizen is core to lean manufacturing and the Toyota Way. It was developed in the manufacturing sector to lower defects, eliminate waste, boost productivity, encourage worker purpose and accountability and promote innovation.As a broad concept that carries myriad interpretations, it has been adopted in many other industries, including healthcare. It can be applied to any area of business and even on the individual level.

Kaizen can use a number of approaches and tools, such as value stream mapping which documents, analyzes and improves information or material flows required to produce a product or service and Total Quality Management which is a management framework that enlists workers at all levels to focus on quality improvements. Regardless of methodology, in an organizational setting, the successful use of Kaizen rests on gaining support for the approach across the organization and from the CEO down.Kaizen is a compound of two Japanese words that together translate as "good change" or "improvement." However, Kaizen has come to mean "continuous improvement" through its association with lean methodology and principles.

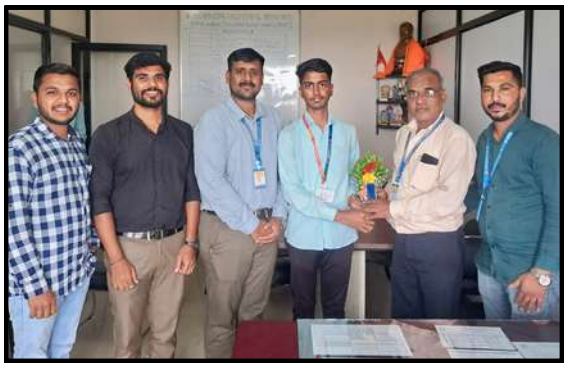
Kaizen has its origins in post-World War II Japanese quality circles. These circles or groups of workers focused on preventing defects at Toyota.They were developed partly in response to American management and productivity consultants who visited the country, especially W. Edwards Deming, who argued that quality control should be put more directly in the hands of line workers. Kaizen was brought to the West and popularized by Masaaki Imai via his book Kaizen: The Key to Japan's Competitive Success in 1986.



Mr. Mihir Shinde, (Second year Automobile), won first prize in REEL STAR Competition held at computer engineering Dept. AMP Vathar.

Felicitation of Mr. Shivtej Kakaso Jagtap who got 70 out of 70 marks in subject Automobile Engineering.

Miss. Trishala Patil (Second year Automobile) won first prize in Oratorical Competition held at Automobile Engineering Dept. AMP Vathar.



Felicitation of Mr. Sumedh Ananda Minachekar who got 70 out of 70 marks in subjects Automobile Engineering & Industrial Hydraulics & pneumatics.

Miss. Shruti Ghatge(Second year Automobile) won second prize in Best From Waste Competition held at Automobile Engineering Dept. AMP Vathar.

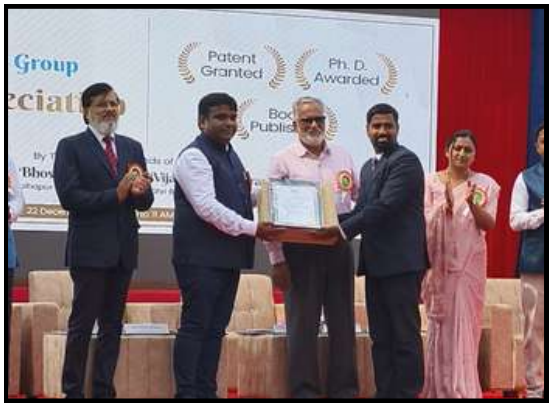
Mr. Sarthak Jadhav (Third year Automobile) won third prize in Auto Art Competition held at Automobile Engineering Dept. AMP Vathar.

First Year Student Mr. Dnyanesh Patil won second prize in Poster Presentation Competition at Electronics and Computer Engineering Dept. AMP Vathar

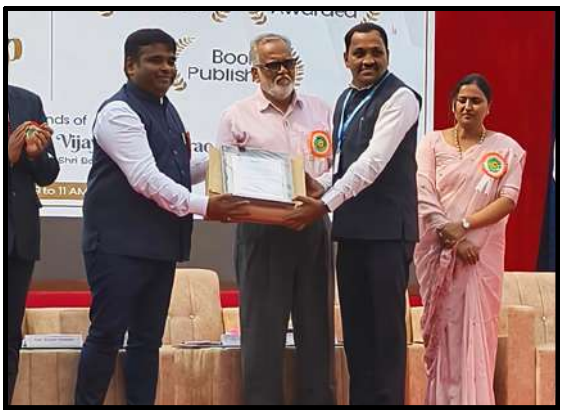
First Year Student Ms. Sakshi Patil won second prize in Auto Art Competition at Automobile Engineering Dept. AMP Vathar

Appreciation of Principal Dr. Y.R. Gurav by Hon. President Vijaysinh Mane ,Hon. Manisha Mane Vahinisaheb, Dr. Vasant Bhosale during Faculty Appreciation Award function 2024 Organized by Ashokarao Mane Group for completion of his PHD in Computer Science and Engineering . His work in Product review classification and sentiment analysis using NLP and Advanced deep learning approach has given a new direction in this field.

Appreciation of Dr. S.A. Lakade by President Hon. Vijaysinh Mane , Hon. Manisha Mane Vahinisaheb, Dr. Vasant Bhosale during Faculty Appreciation Award function 2024 Organized by Ashokarav Mane Group for completion of his PHD in Computer Science and Engineering . His work in Encrypted cloud data deplection technique for secure data storage optimization over cloud has given a new ideas and new solution in security purpose and data optimization in cloud.



Felicitation of Mr. Sunil Shankar Mane currently working as Head of Department (Electronics and Computer Engineering) by Hon. President Vijaysinh Mane. He has Published 3 International Research Papers in International Conferences. He holds the Government of India Patent Grant on the topic Circuit Breaker Device for Safety in February 2024.



Felicitation of Mr. Pankaj Dinkar Shinde currently working as a Lecturer in Electronics and Computer Engineering by Hon. President Vijaysinh Mane. He has published 1 international research paper in international conference. He received the Government of India Patent Grant on the topic Smart Multi Functional Baby Toy in May 2024.

Appreciation of Mr. B.Y. Ghatge for granted Indian Patent from Hon. Vijaysinh Mane Saheb, Hon. Manisha Mane Vahinisaheb, Dr. Vasant Bhosale during Faculty Appreciation Award 2024 Organized by Ashokarav Mane Group.

Our faculty Mrs. Manisha Abhijeet Chavan Presented her Review paper on “Celebrating 75 Years of Innovation: A Review of Schmidt Rebound Hammer Applications and Developments” at “5th International Conference on Advanced Technologies for Societal Applications-TECHNO SOCIETAL - 2024” organized at ,Shri Vithal Education and Research Institute (SVERI) Pandharpur.

INDUCTION PROGRAM


The 'Induction Program' was held on 22nd and 23rd August 2024. The inauguration was done by lighting the lamp by Principal Dr. Y.R. Gurav. First Year Head of Department prof. P. M. Patil gave an introduction and welcome. In the two-day 'Induction Program', the invited dignitaries guided on various topics. Prof. B. D. Potdar from TKIT, Warnanagar guided on the topic of 'Application of Chemistry in Daily Life.' Prof. Akshay Chavan and Prof. Samruddhi Magar-Patil from Vivekananda College of Engineering Kolhapur presented their views on the topic of 'Importance of Physics in Engineering'. Adv. Vijaykumar Patil Secretary of Bar Council Islampur gave detailed information about the 'Anti Ragging Act'. Placement Officer of Ashokrao Mane Polytechnic Prof. B. Y. Ghatge gave detailed information on the topic 'Placement Opportunity After Diploma', The students got information about how there can be job opportunities in renowned companies. On this occasion, Prof. R.D. Nagvekar provided detailed information about human health and mental development through yoga and meditation. Hon. Principal Prof. Dr. Y. R. Gurav guided the students. Head of all the departments were present for this event.

SELF-DEFENSE WORKSHOP

Along with boys, girls should also become physically capable and in order to be able to face the bad situations that women face while living in society these days, a Self-Defense Workshop was organized for first year students on 22/11/2024 jointly by the Visakha Committee and the Gymkhana Department. Mr. Aniket Shinde and Ms. Rajshila Shinde, who provide training in the sport of Taekwondo at the national level, were the instructors for this camp.

NSS ACTIVITIES

TREE PLANTATION


NSS committee of Ashokrao Mane Polytechnic, Vathar had arranged the “Tree Plantation (Vrukshotsav)” under the National Service scheme (NSS) on Wednesday, 19 June 2024 as per the guidelines in the circular of Maharashtra State Board of Technical Education (MSBTE), Mumbai. In the presence of Principal Dr. Y. R. Gurav, NSS In-charge Mr. V. S .Surve, departmental coordinators, & students of Ashokrao Mane Polytechnic, Vathar, were present during the “Tree Plantation (Vrukshotsav)” activity.

FIRE SAFETY TRAINING


NSS committee of Ashokrao Mane Polytechnic, Vathar had arranged the “Fire Safety Training (Demo on awareness and handling of fire extinguisher)” under the NSS. The event was carried out done by the cooperation of the entire NSS committee members, staff and students as per the guidelines in the Maharashtra state board of technical education. The “Fire Safety Training (Demo on awareness and handling of fire extinguisher)” event was inaugurated by Hon. Principal Dr. Y. R. Gurav, all HODs, NSS in charge Mr. V.S. Surve and the departmental coordinators.

HAR GHAR TIRANGA


"Har Ghar Tiranga Abhiyan" (Campaign) is an initiative under the larger Azadi Ka Amrit Mahotsav, launched by the Government of India to commemorate 75 years of India's independence. The campaign encourages citizens to display the national flag (Tiranga) at their homes to celebrate the spirit of patriotism and unity. The Har Ghar Tiranga Abhiyan was widely successful in its launch and has become a significant part of Independence Day celebrations in India.

ECO-FRIENDLY GANESH VISARJAN


The National Service Scheme (NSS) of Ashokrao Mane Polytechnic organized an initiative titled "Eco-Friendly Ganesh Visarjan and Nirmalya Collection Campaign," aimed at promoting environmental awareness and sustainability during the Ganesh Chaturthi festival. This activity was led by NSS coordinators and volunteers across various local locations, emphasizing the importance of eco-friendly practices.

EK PED MAA KE NAAM


The "Ek Ped Maa Ke Naam Abhiyan" is a unique initiative that allows individuals to plant trees in the name of their mothers, combining environmental action with a personal touch. As part of this campaign, students of Ashokrao Mane Polytechnic Vathar Tarf Vadgaon took the initiative to participate individually, planting saplings at their homes, in local parks, or in nearby areas. The event aimed to foster a sense of responsibility towards the environment while celebrating the nurturing spirit of mothers.

DIWALI FARAL DISTRIBUTION


The Diwali Faral Distribution was organized by the NSS Club with the aim of spreading the spirit of Diwali to underprivileged communities and individuals in our vicinity. The purpose of the event was to ensure that even the marginalized sections of society could enjoy the festive season by providing them with a nutritious meal during the celebrations.

SCHOOL CONNECT PROGRAM




The Civil Engineering Department has made a prototype of 'Burj-Khalifa', 'Plam City' and 'Radhanagari Dam-Smart City' on the occasion of Engineer's Day and invited students from various schools for watching such projects and taking information about polytechnic through school connect program.







In case a student wishes to take admission for 'Polytechnic' and is at Xth standard, he or she generally wants the information regarding polytechnic, its environment ,infrastructure, syllabus, various activities conducted in polytechnic and how students participate in various activities.

To provide information for all above questions, difficulties and confusions, a project or initiative has been taken up by our college. The program involves a face-to-face interactive session with students of class Xth of different schools in local region.

SUCCESS STORY

Mr. Faijan Maner
Founder - Webmatix Marketing

I am Mr. Faijan Maner. I had taken admission at Ashokrao Mane Polytechnic in Electronics and Telecommunication Engineering in the year 2020-21. Now I am founder of a Tech Startup - Webmatix Marketing which is engaged in providing digital marketing, advertising and software solutions to businesses (SME's as well as large scale businesses). I was an average student , but have very big dreams. AMP provides all needful things which were very useful for betterment of my future. During teaching, a teacher uses creativity so that students can concentrate on their studies. They are a repository of knowledge and have the patience and confidence to take responsibility for the future of the student. They only want to see their students successful and happy. I would like to thank all teachers who guided me, taught me and I am very thankful to AMP for giving a path in making my life great.

Ar. Shubham M. Yadav
Junior Architect
Vastu Architects
Pune

"BUILDING MY FUTURE, BRICK BY BRICK: HOW AMP SHAPED MY CAREER"

As I look back on my journey from being a student in the Civil Engineering Department at AMP to where I stand today, I can confidently say that this institution laid the foundation for my success, just as we engineers lay the foundation for every great structure. My experiences here didn't just prepare me for a career—they prepared me for life.

The Civil Engineering Department was the foundation of my education. The rigorous curriculum, combined with practical exposure, ensured that I gained in-depth knowledge of structural analysis, design, and construction. The experienced faculty members were more than teachers—they were mentors who instilled in me a passion for learning and encouraged me to think critically and innovate. Success isn't just about technical knowledge; it's also about leadership, communication, and teamwork. Through many extracurricular activities, technical fests, and student clubs, I developed these essential life skills. Whether it was organizing events, participating in debates, or leading project teams, the opportunities at AMP helped me grow holistically.

Today, as a Junior Architect at Vastu Architects, Pune, I apply the knowledge, skills, and values that I gained at AMP every single day. Whether it's designing high-rise buildings or managing large infrastructure projects, the foundation laid during my college years has been instrumental in shaping my career.

To the Civil Engineering Department and the college as a whole, thank you for believing in me and giving me the tools to succeed. You didn't just teach me how to build structures—you taught me how to build a future.

MESSAGE FROM ACADEMIC COORDINATOR

Mr. P. T. Hasbe
Academic Coordinator
AMP Vathar

Dear Students and Faculty members,
It is great to interact with you through this Newsletter. As we reflect on the past academic year, we are filled with a sense of accomplishment and gratitude. Our college has continued to thrive, thanks to the collective efforts of our students, faculty, and staff.This year, we have seen tremendous growth in both our academic programs and extracurricular activities. Our commitment to innovation in education has been reflected in the new courses and projects introduced, all designed to equip our students with the skills needed for the future. The dedication and enthusiasm of our students in their studies and beyond have been truly inspiring.I would like to extend my sincere appreciation to our faculty members for their unwavering support and exceptional guidance. Your contributions are fundamental to our success and have made a significant impact on the development of our students.As we look forward to upcoming year, let us continue to strive for excellence and embrace the challenges and opportunities that lie ahead.

MESSAGE FROM EDITORIAL BOARD

As we wrap up another successful edition of our newsletter, we want to take a moment to express our heartfelt gratitude to each of the contributor. Your valuable insights, contributions and cooperation have been instrumental in successful completion of this newsletter. Your dedication and willingness to share your knowledge have enriched the content of the newsletter and made it more engaging to our readers.
Thank you once again.