

ASHOKRAO MANE POLYTECHNIC VATHAR ELECTRONICS AND COMPUTERENGINEERING NEWSLETTER : THE CONNECT

# **VOL-10:ISSUE-I, JUN 2024 TO DEC 2024**

#### **THEME : AUTOMATION**

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CHIEF EDITOR: Mr. S. S. Mane EDITOR COMMITTEE: 1.Mrs. A. A. Chougule 2.Mr. J. I. Tamboli 3.Ms. V. B. Patil 4.Ms. Sanika Patil 5.Mr. Swaraj Khot

#### **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 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 and software simulation labs.

#### **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**



Prof. Dr. Y. R. Gurav Principal

The fact of launching the "THE CONNECT" newsletter edition by the faculty, staff and students of E & CO 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 E & CO 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 HOD, 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 HOD

Electronics and Computer Engineering is one of the largest and fastest growing field of engineering in India. It is the most sophisticated branch of engineering which focused on the study of Electronic devices like diodes, transistors, MOSFET, Op-amps etc. and various software's languages related to Computer Engineering field.

The curriculum of Electronics and Computer Engineering in MSBTE is designed in such a way to incorporate the requirements of various industries.

The electronics as well as computer industry is growing very fast and is creating good job opportunities in areas such as research, design and development, manufacturing, web designing, software testing, maintenance and repairing of electronics equipment.

Electronics and Computer Diploma course will improve job prospects further. For in-depth knowledge, students can pursue B. E. M.Tech, MS or ME in various fields such as VLSI Design, Microwave Engineering, Integrated Circuits, Advanced Algorithm, Embedded System, Nanotechnology and Microelectronics and so on.



#### **Faculty Development Program**

A faculty development program was organized by Electronics & Computer Engineering department from 11th July 2024 to 13th July 2024 at Ashokrao Mane Polytechnic, Vathar. This was 3 days faculty development program related subtopics were discussed in detail by eminent resource persons & a very beneficial academic environment was experienced by the participants. The following topics are covered by this FDP,

\* The Learning Principle for professional grooming and also learn different professional ethics , discussion on how to use ethics at work.

- \* Time management is important factor in daily work ,priority work matrix preparation has discussed.
- \* Use of internet services for official work and avoid for unnecessary work.
- \* Keep role model infornt of you and do the work for best output.
- \* For best teaching methods and concepts create lesson plans.







Gurupurnima is a significant occasion celebrated by students and faculty alike to honour and express gratitude towards teachers and mentors. We celebrated Gurupurnima on 20th July 2024 with enthusiasm. The objective of celebrating this event is to enhance student-teacher relationships and foster a respectful academic environment and to provide a platform for students to engagement and cultural expression. The event began with a lamp lightning ceremony by the chief guest Hon. Principal Prof. Y. R. Gurav sir and HOD Prof. S.S. Mane sir, teaching staff and some student for setting a spiritual tone for the gathering. Our chief guest Hon. Principal Prof. Y. R. Gurav sir delivered an inspiring talk on the importance of mentorship and guidance in personal and professional growth. Students spoke on Gurupurnima that highlighted themes of respect and gratitude towards teachers. Teachers were honored for their exceptional contributions to education. The Gurupurnima event organized by students at successfully met its objectives, creating a meaningful and respectful celebration of teachers. The event facilitated a deeper connection between students and faculty, and showcased the organizational skills and creativity of the student body.





# Gurupurnima



#### **TEACHER'S DAY**

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 organized 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 have organized welcome ceremony. In the ceremony, we were having chief guest our beloved principal Prof. Y. R. Gurav sir, HOD. Mr. S. S. Mane sir, all teaching &non-teaching staff. Last special awards were presented to outstanding teacher from students and best class from SY & TY. Best Class Award is given to second year students.

The Teachers' Day celebration was a filled with joy, laughter, and heartfelt appreciation. Students left with a deeper understanding of the dedication their teachers exhibit daily.





#### **ENGINEER'S DAY**



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 Multisim. 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.







#### **PARENT'S MEET**

A meeting was held for parents of SY (ECO) and TY (EJ) students on 30 September, 2024. The academic progresses, Attendance, Class Test 1 marks, behavior of respective student were discussed with parents in presence of mentors and subject teachers.

Most of parents were happy with the way in which the department was conducting academics. The parent gave a very good feedback for the programme as well as about the participation of faculties in all the academics as well as co-curricular activities and also appreciated mentoring system.

Also following points are discussed:

- 1. Importance of Soft Skill
- 2. Carrier opportunities in ETC / ECO branch
- 3. Information given about last year placement

4. Information given about various events like Gurupurnima, Teachers day, Industrial Visit and Engineers day etc.





#### **Expert Lecture On Mobile And Wireless Communication**



In the Electronics and Computer department, a guest lecture on the subject of "Digital Cellular Mobile Standards" was held on October 09, 2024 and conducted by Mr. Dinesh Shirsath. The goal of the guest lecture is to provide an in-depth examination of digital cellular mobile standards, tracing their evolution from early systems to the latest advancements in mobile communication. The expert lecture provided valuable insights into the digital cellular mobile standards. It underlined the importance of standardization and collaboration among global entities to address challenges and drive innovation in mobile technologies. The lecture provided a comprehensive overview of digital cellular mobile standards, illustrating their impact on modern communication. The session concluded with an interactive Question & Answer segment, where students raised questions regarding the implications of emerging technologies on existing standards and the future of mobile communication.

#### **Workshop on Database Management System**



In the Electronics and Computer department, a "Database guest lecture on the Topic of management system" was held on October 25, 2024 and conducted by Ms. Snehal Sonalkar. The goal of the guest lecture is to provide an in-depth examination of Database management system, tracing their evolution from early systems to the latest advancements in mobile communication. The expert lecture provided valuable insights into the Database management system. It underlined the importance of standardization and collaboration among global entities to address challenges and drive innovation in Database. The lecture provided a comprehensive overview of Database management system impact on PL-SQL.

The session concluded with an interactive Question &Answer segment, where students raised questions regarding the PL-SQL programming.

#### **INDUSTRIAL VISIT**



Kolhapur, Date 27 August 2024: As part of our academic curriculum, the Department of Electronics and Computer Engineering organized an industrial visit to ELCOM International Pvt. Ltd., located in Five Star MIDC, Kagal, Kolhapur. This visit, arranged by the ENTC/ ECO department at Ashokrao Mane Polytechnic, Vathar Tarf, Vadgaon Kolhapur, was for second year (TE) and third-year students (EJ). It included an overview of switch production, the assembly section, and the production and testing of extension boards using a PDU controller. The impact of this visit on the students was significant, as it provided them with practical and theoretical insights into various switches, extension boards, and the assembly process. Students gained valuable knowledge about the applications and uses of switches



# **NSS ACTIVITY**

#### EK PED MAA KE NAAM ABHIYAN



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 nearby areas. The event aimed to foster a sense of responsibility towards the environment while celebrating the nurturing spirit of mothers

#### HAR GHAR TRINGA ABHIYAN



"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.



#### **TREE PLANTATION (VRUKSHTSAV)**

Every man needs the oxygen for their life and Trees are the foremost source of oxygen as well trees help to reduce the level of carbon dioxide.

NSS committee of Ashokrao Mane Polytechnic, Vathar has arranged the "Tree Plantation (Vrukshotsav)" under the National Service scheme (NSS) on Wednesday, 19 June 2024 as per the guidelines in circular of Maharashtra State Board of Technical Education(MSBTE), Mumbai.

#### ECO FRINDLY GANESH VISARJAN NIRMALYA COLLECTION CAMPAIGN



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 NSS festival. This activity was led by coordinators and volunteers across various local locations, emphasizing the importance of ecofriendly practices

SCHOOL CONNECT PROGRAM



The School connect program is organized to nurture and encourage the student by making them aware of the multiple carrier options. Under the MSBTE campaign of school connect program the department faculties visited the various schools and made the awareness about career among 10th standard students about Diploma Education. For these program our faculties prepared presentation to guide the student about the various carrier option available in Electronic and Computer Engineering.

# **FACULTY SPEAK**



Mr. J. I. Tamboli Lecturer

# What is Automation?

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."

Usina definition. our 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.



Miss. A. A. Chougule Lecturer

# **Types Of Automation:**

1.Robotic process automation (RPA) involves using software robots, or 'bots', to automate repetitive, rule-based tasks traditionally performed by humans.

2. Industrial automation This encompasses automation in manufacturing and industrial settings. It involves using machinery, control systems, and robots to perform tasks such as assembly, packaging, and quality control. Automotive assembly lines utilize industrial robots for precise and efficient assembly processes.

3. Cognitive automation Cognitive automation integrates AI and machine learning to perform complex tasks that require cognitive abilities.

4. Business process automation (BPA) BPA focuses on automating entire business processes involving multiple organizational tasks and departments.

5. IT process automation (ITPA) TPA automates routine IT tasks such as system monitoring, software deployment, and troubleshooting.

Soft Automation: Software-Driven Process Control

Soft automation refers to the use of software systems to control, monitor, and optimize industrial processes and engineering workflows.

#### **STUDENT SPEAK**



Miss. Shreya Babaso Patil

#### **Automation Use Cases**

1. Manufacturing and robotics In manufacturing, automation revolutionizes production processes, elevating accuracy and maximizing resource efficiency. 2. Healthcare and medical Automation in healthcare aids in diagnostics, treatment, and patient care.

3. Retail and eCommerce: Ecommerce giants such as Amazon integrate automation in their warehouses. Amazon's robotic fulfillment centers use autonomous robots to move inventory, optimize storage, and expedite order fulfillment.

4. Finance and banking Financial institutions rely on automation for various tasks, from customer service <u>chatbots</u> to risk management.

5. Transportation and logistics Automation has been transforming transportation and logistics with advancements in autonomous vehicles and drones. .

6. Energy and utilities Smart grids utilize automation to optimize energy distribution and consumption.

#### Wealth Management

Wealth management companies are juggling sensitive data across multiple clients which leaves little to no room for error. RPA is an automation solution that can ensure error-free processes. Here are some examples of RPA use in wealth management: Quality control management ,Following compliance practices.



#### Miss. Aparna Ashok Mane

#### **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.

# **INDUSTRY SPEAK**



#### Mr. Omkar M. Burande

#### **Examples of Automation**

**1. Al Automation** The most popular example of Al automation is IBM's Watson, a super-intelligent Al developed to handle complex problems and decision-making.

2. Task Automation Task automation is like decluttering your work schedule. It focuses on automating repetitive tasks that don't require critical thinking—kinda like cleaning your virtual room so you can focus on the cool stuff.

**3. Workflow Automation** This smooth operator assists in streamlining business processes; like a nifty conveyor belt, it moves tasks along from one step to the next.

**4. Home Automation** Picture this: you walk into your home after a long day and your lights automatically switch on, your favorite tunes start playing, and your thermostat adjusts to a cozy temperature.

**5. Manufacturing Automation** Shifting from the home front to the industrial, manufacturing automation is another powerful application of automation technology.

#### 6. Financial Services Automation

Last, but definitely not least, we delve into financial services automation. In this realm, activities like data entry, account reconciliation, and report generation are being automated, thereby increasing accuracy and reducing the time taken to complete these tasks.



#### Mr. Chandrkant Dodmise

#### Automation Technology:

Application of machines to tasks once performed by human beings or, increasingly, to tasks that would otherwise be impossible. Although the term mechanization is often used to refer to the simple replacement of human labor by machines, automation generally implies the integration of machines into a self-governing system. Automation has revolutionized those areas in which it has been introduced, and there is scarcely an aspect of modern life that has been unaffected by it. The term automation was coined in the automobile industry about 1946 to describe the increased use of automatic devices and controls in mechanized production lines. The origin of the word is attributed to D.S. Harder, an engineering manager at the Ford Motor Company at the time. The term is used widely in a manufacturing context, but it is also applied outside manufacturing in connection with a variety of systems in which there is a significant substitution of mechanical, electrical, or computerized action for human effort and intelligence. Automation includes using various equipment and control systems such as factory processes, machinery, boilers, heat-treating ovens, steering, etc. Examples of automation range from a household thermostat to a large industrial control system, and warehousing robots.

**F.Y.** Toppers

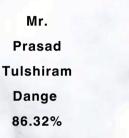
# **STUDENT ACHIEVEMENT (SUMMER -24)**

**T.Y.** Toppers



Miss. Vishakha Baburao Gawade 89.58%





Mr. Kaivlaya Vishal Sankpal 85.89%





Miss. Aparna Ashok Mane 84.12%

Miss.

Shreva

Babaso

Patil

88.24%



Miss. Shrusti Basagonda Patil 80.13%



Mr. Ganesh Dashrath Naik 82.43%



Mr. Sanika Shahaji Patil 76.75%



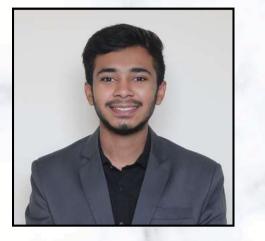


Mr. Sunil Shankar Mane currently working as a Head of Department of Electronics and Computer. He has Published 3 International Research Papers in International Conferences. He holds the Government of India Patent Grant on the topic Circuit Breaker Device for Safety in February 2024.



Mr. Pankaj Dinkar Shinde currently working as a Lecturer in Electronics and Computer Engineering. He has Published 1 International Research Papers in International Conferences. He holds the Government of India Patent Grant on the topic Smart Multifunctional Baby Toy in May 2024.

#### SUCCESS STORY



Mr. Faijan Maner

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 thing which are 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 like to thanks all teachers who has guide me, teach me and very thankful to AMP to give path in making my life great.

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, H.O.D. of Electronic & 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 : IMMERSIVE TECHNOLOGIES**

