

#### ASHOKRAO MANE POLYTECHNIC VATHAR

**ELECTRONICS AND TELECOMMUNICATION ENGINEERING** 



## **NEWSLETTER: THE CONNECT**

**VOL-9:ISSUE-II, JAN 2024 TO MAY 2024** 

#### THEME: OPTICAL NETWORKING

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Gudi Padwa is a new beginning of dreams, hopes and happiness. May this wonderful year bring success to you. Have a blessed Gudi Padwa

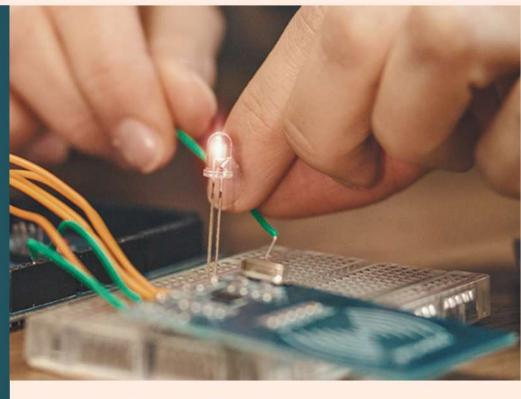


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- 2. Mr. J. I. Tamboli 3. Mr. P. D. Shinde
- 4. Miss. Aparna Ashok Mane
- 5.Miss. Shreya Babaso Patil



#### MESSAGE FROM PRINCIPAL



Prof.Y.R.Gurav Principal

The fact of launching the "THE CONNECT" newsletter edition by the faculty, staff and students of E & TC 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 focussed 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 hights achieved by the E & TC 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.

# THE CONNECT

#### **VISION & 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.

#### MESSAGE FROM HOD



Mr.S.S.Mane HOD

#### **EDITOR'S DESK**



Miss. A. A. Chougule Lecturer

We are delighted to unveil the E & TC Department's Newsletter for the Academic Year 2023-24, showcasing the remarkable achievements and endeavours of our dedicated faculty and students. It is our hope that this publication will kindle the flames of enthusiasm within our students and foster a passion for ground breaking research among our esteemed faculty members. Our department's core mission remains unwavering—to nurture confident technologists who embody not only technical prowess but also the values of Indian ethos. We take pride in offering an enriching learning environment, facilitated by a team of exceptionally qualified faculty, dedicated to inspiring students to hone their technical acumen and instil the ethos of teamwork. We extend our heartfelt appreciation to the diligent news letter editorial board for their continued commitment to academic excellence. Best wishes for their continued outstanding contributions.

It is a matter of great pleasure that I was given the opportunity to work on the newsletter "THE CONNECT". It highlights different activities of student and faculties, events, academic proficiency and achievements of departments. I do hope that newsletter will encourage students to use it as a platform to convey their creativities. Being the newsletter editor for department of Electronics and Telecommunication engineering in Ashokrao Mane Polytechnic is indeed a huge honour for me. It gives me great pleasure to present this May 2024 edition. Newsletter reflects department's vision and mission, events, activities, and academic accomplishments are also highlighted. I have attempted to document the enthusiasm and the events of the past six months are captured in this newsletter. It has remained my sincere efforts that this newsletter should inspire many more people, especially students, to use it as a medium for artistic expression. It is my genuine hope that you will find this edition to be a fascinating read.

#### KEY POINTS OF THE DEPARTMENT

- 100% Placement of final-year students
- · Excellent results for final-year students
- Well-developed laboratories, in-plant training, and industrial training
- · Expert lectures, time management, and the ability to prioritize and plan work effectively
- · Focuses on the design and development of electronic goods
- Businesses in order to enable pupils to labour under challenging circumstances

#### **ALUMNI MEET**









"Alumini Meet 2024" of Ashokrao Mane Polytechnic Vathar, was held on Saturday 6th January 2024 in the college campus. The Hon. Sou. Manisha Vijaysinh Mane Member of Zilha Parishad Kolhapur, was chief guest of function and Hon. Prof. Y. R. Gurav Principal of Ashokrao Mane Polytechnic, Vathar was chair person. The chair person addressed his valuable speech, told all the progress of institute among the alumni. Hon. Sou. Manisha Vijaysinh Mane addressed precedent speech, she said that institution was started with the aim to provide education to economically backward and students from rural areas. We overcome the problems by providing different facilities and infrastructure to the students. Total 200 alumni were present for meeting, some of the alumni give their valuable speech and shared memories of college life and all experiences.





#### **SPORTS**













The Department of Electronics and Telecommunication successfully organized "Annual Sports Meet 2K24", featuring an exciting Kho Kho game and various other events. Students from the department enthusiastically participated in the games, showcasing their teamwork, strategy, and sportsmanship. Students also participated in various other games, including cricket, football, volleyball, badminton, etc. The events were closely contested, with participants demonstrating their skills and determination. The TY E&TC students has secured Runner Up in Cricket Competition held at AMPV in Annual sports 2k24.

## **EVENTS: REFLEX 2K24 EVENT:BRAINTEASER**





Electronics and Telecommunication department has organized a brain teaser event, on 29 th Feb 2024. For this event 57 students are participated from various polytechnic colleges. The function was inaugurated by Prof. Y. R. Gurav sir, Principal of Ashokrao Mane Polytechnic, Vathar. We have effectively arranged brain teaser event, for this event round 1 is aptitude and round 2 is circuit building on breadboard. There are 17 students qualified for 2nd round.

#### **EVENT:PAPER PRESENTATION**









Electronics and Telecommunication department has organized a Paper Presentation event, on 29th Feb 2024. For this event 17 students are participated from various polytechnic colleges. The function was inaugurated by Hon. Prof. Y. R. Gurav sir, Principal of Ashokrao Mane Polytechnic, Vathar. We have effectively arranged Paper Presentation event. Aim of event is to provide platform for students to showcase their knowledge, innovative ideas and presentation skills.

## TRADITIONAL DAY









Electronics and Telecommunication department has organized a Traditional Day theme name as "Ganesh Chaturti" on 30th Feb 2024. For this theme students performing a act how Lokamanaya Tilak start to organised Ganesh Chaturti and student give the information about Lokamanya Tilak and God Ganesh.

## **FUNNY GAMES**





#### **KALAAVISHKAR ANNUAL FUNCTION 2K24**













On the occasion of Annual Function, Electronics and Telecommunication department students has performed various activities like Singing, dancing and fashion show. This Annual Gathering has given motivation to students and also given platform for developing their personality.

#### INDUSTRIAL VISIT





As per our academic curriculum, the department of Electronics and Telecommunication Engineering has arranged industrial visit to "Menon And Menon Ltd" Kolhapur on the date of 31st Jan 2024. From this visit students known about what is PLC, PLC Programming , CNC Programming in G and M codes also PLC Maintenance and Robotic working. The major impact of this visit is students come to know how academic knowledge can be implemented in industry such as how to prepare PLC programming, how to prepare CNC Programming in G and M codes, Which problems generally occur in PLC, CNC. Students also known about difference between preventive maintenance and breakdown maintenance. Students able to explain procedure of PLC and CNC maintenance. At the end they known about how robots are worked in industries.









#### EXPERT LECTURE





In the Electronics and Telecommunication department, a guest lecture on the subject of "Various steps to be followed to complete Project and Report writing" was held on January 24, 2024. The goal of the guest lecture is to provide knowledge about different areas of electronics. Mr. P. B. Mattikalli, a well-known project management specialist and the director of Tiny Tech Electronics Solution, Ichalkaranji, gave the lecture. The speaker started off by going over the different areas of electronics, how to choose dominant themes, and how to formulate a problem statement. What procedures need to be followed when planning a project, how to look through earlier works on a certain subject, and how to prepare project reports? By following the outlined steps and best practices, individuals can enhance their project management skills and produce high-quality reports that effectively communicate their findings and recommendations.





In the Electronics and Telecommunication department, a quest lecture on the subject of "Microcontroller & Applications" was held on February 17, 2024. The guest lecture focused on the interfacing of a 16x2 LCD display with Keil software. The session aimed to provide students with practical knowledge on how to effectively utilize these components in embedded systems projects. Dr. S. B. Chavan (HOD E & TC Department) DOT, Shivaji University, Kolhapur gave the lecture. Key Points Covered in this lecture is introduction to 16x2 LCD Displays. Also have discussion on the hardware components required for the interfacing, including the LCD module, Microcontroller, Arduino. Then they given overview of Keil IDE and its features for Microcontroller programming. Demonstration of how to create a new project, configure Microcontroller settings, and write code for LCD interfacing. The guest lecture provided valuable insights into the interfacing of a 16x2 LCD display with Keil software, enabling participants to understand the hardware connections and programming techniques required for successful integration. Students gained practical knowledge that can be applied to various embedded systems projects involving LCD displays. Overall, the session was informative and engaging, enhancing students skills in Microcontroller programming and hardware interfacing.

#### PARENTS MEET













In Electronics and Telecommunication department, A meeting was held for parents of Second year and Third year students on 17th Feb, 2024. The academic progresses, attendance, Class Test-1 marks, behavior of respective student were discussed with parents in presence of mentors and subject teacher. Also Importance of soft skill, Carrier opportunities in E&TC, Information given about current year placement these are the points were discussed. Impact of meeting is Improvement in Attendance of students, Improvement in class test Marks, and parents also know, Students and parents are one of the stake holders of institute after meeting both are satisfied about working of department.

#### FACULTY SPEAK......



Mr. J. I. Tamboli Lecturer



Mr. P. D. Shinde Lecturer

#### Optical networking:-

Optical networking is a means communication that uses signals encoded in light to transmit information in various types of telecommunication network. These include limited range Local Area Network(LAN) or Wide area network (WANs), which cross metropolitan and regional areas as well as long-distance international and transoceanic national, networks. It is a form of optical communication that relies on optical amplifier, laser or LEDs and wavelength division multiplexing (WDM) to transmit large quantities of data, generally across fiber optic cable. Because it is capable of achieving extremely high bandwidth, it is an enabling technology for the Internet and Telecommunication networks that transmit the vast majority of all human and machine-tomachine information.

## Types of Optical networking:-

1) Fiber-optic networks:-

The most common fiber optic cables are communication network, mesh network or ring network commonly used in metropolitan, regional, national and international systems. Another variant of fiber-optic networks is the passive optical network, which uses powered optical splitters to link one fiber to multiple premises for last mile applications.

2) Free-space optical networks:-

Free space optical network<u>i</u> use many of the same principles as a fiber-optic network but transmit their signals across open space without the use of fiber. Several planned satellite constellation such as <u>SpaceX's</u>, <u>Starlink</u> intended for global internet provisioning will use wireless <u>llaser</u> communication to establish optical mesh networks between satellites in outer space.

#### STUDENT SPEAK......



Miss. Aparna Ashok Mane



Miss. Shreya Babaso Patil

#### WDM in Optical networking:-

WDM is a technology that enables various optical signals to be transmitted by a single fiber. Its principle is essentially the same as Frequency Division Multiplexing (FDM). That is, several signals are transmitted using different carriers, occupying non-overlapping parts of a frequency spectrum. In case of WDM, the spectrum band used is in the region of 1300 or 1550 nm, which are two wavelength windows at which optical fibers have very low signal loss. Initially, each window was used to transmit a single digital signal. With the advance of optical components, such as Distributed Feedback (DFB) lasers, Erbium-doped Fiber Amplifiers (EDFAs), and photo-detectors, it was soon realized that each transmitting window could in fact be used by several optical signals, each occupying a small traction of the total wavelength window available. n fact, the number of optical signals multiplexed within a window is limited only by the precision of these components.

## Components in Optical networking:-

The diversity of protocol stacks, reflected in the multiplicity of client signal types to be supported in the OTN, is accommodated by the use of digital wrappers. The use of true optical networking features offer additional flexibility and robustness via OCh routing, fault and performance monitoring, protection, and restoration, all performed on a selective per OCh basis. All these elements combined together render a powerful and flexible networking solution that is future-proof and open to any particular vision of data service providers. Following are the main components –

- TP (Transponder)
- VOA (Variable Optical Attenuator)
- MUX (Multiplexer)
- DEMUX (De-multiplexer)
- BA (Booster Amplifier)
- Line (OFC media)
- · LA (Line Amplifier)
- PA (Pre Amplifier)
- OSC (Optical Supervisory Channel)

#### STUDENT SPECIAL ACHIEVEMENTS



The TY E&TC student Miss. Manali Suresh Virale secured first place in Zonal Level Competition "Javelin Throw".



The SY E&TC student Mr. Rajvardhan Patil secured third place in Zonal Level Competition "Weight Lifting".



The TY E&TC students has secured Runner Up in Cricket Competition held at AMPV in Annual sports 2k24.



The TY E&TC student Miss. Siddhi Vinod Ghodke secured first place in "Mehandi" Competition of annual function held at AMPV.



The TY E&TC students has secured Runner Up in Kabddi Competition held at AMPV in Annual sports 2k24.



The TY E&TC student Mr. Kaivala Vishal Sankapal secured second place in "Reflex" Competition held at AMPV.



The TY E&TC student Miss. Siddhi Vinod Ghodke and Ashwarya Dalvi participated in Carrom Master competition held at RIT, Islampur.



## **STUDENT ACHIEVEMENT**

#### THIRD YEAR TOPPERS



Miss. Vishakha Baburao Gawade 89.58%



Mr. Prasad Tulshiram Dange 86.32%

**SECOND YEAR TOPPERS** 



Mr. Kaivlaya Vishal Sankpal 85.89%



Miss. Shreya Babaso Patil 88.24%



Miss. Aparna Ashok Mane 84.12%



Miss. Vidhika Vikas Kagale 82.47%

#### **PLACEMENTS**





Number of students placed in various companies from E & TC department:

- PIAGGIO VEHICLES PVT. LTD. BARAMATI 8
- BARAMATI BELRISE INDUSTRIES PVT. LTD, PUNE –
  12
- JOHN DEERE INDIA PVT. LTD, PUNE 6
- CUMMINS INDIA LTD, FALTAN 2
- BAJAJ AUTO PVT. LTD, PUNE -3

#### **NSS ACTIVITY**









On the Occasion of "Birthday of Hon. Sou. Manisha Mane Vahinisaheb , Member , ZP Kolhapur, NSS committee of Ashokrao Mane Polytechnic, Vathar has arranged the "Blood Donation Camp" on 29th Jan 2024 with Sanieevan Blood cooperation of Center Kolhapur. The blood donation camp was inaugurated by Hon. Principal Prof. Y.R.Gurav sir, all HOD's and NSS coordinator Mr.M.S.Patil ,departmental coordinator and staff. Nearby 52 students and staff participated in the camp spontaneously, By donating their blood they express their gratitude towards the society. The event gave complete satisfaction and immense pleasure to all participants. The event was did by cooperation of the entire NSS committee member, staff and students. By organizing such blood donation camp Ashokrao Mane Polytechnic ,Vathar had made a great contribution for social work.



Mr. Rahul Bharat Miraje

I am Mr. Miraje Rohit Bharat. I had taken admission at Ashokrao Mane Polytechnic in Electronics and Telecommunication Engineering in the year 2016-17. Now I am Executive - 1 Plant Admin at Asian Paints Ltd. Shirwal. 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.

The current newsletter highlights the activities and achievements of faculty ,staff and students for the past 6 months. The intent of this newsletter is to disseminate information about our Department and we hope that the readers find the issues informative and useful. I am thankful to the faculty staff and students for their valuable inputs, and welcome suggestions and feedback. The obligation of authors alone are responsible for the veracity of the information in this newsletter; the opinions they express are exclusively their own and have been approved by the Electronic & Telecommunication engineering department. Mr.S.S.Mane, H.O.D. of Electronic & Telecommunication 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: AUTOMATION

