TECHWAVE- EC

Department of electronics Engineering

QUARTERLY NEWSLETTER

DEPARTMENT OF SCIENCE TECHNOLOGY AND TECHNICAL EDUCATION GOVERNMENT OF BIHAR





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VISION OF THE DEPARTMENT

To achieve excellence in Electronics Engineering education by developing technically skilled, innovative, and ethically responsible professionals to meetindustry andsocietalneeds.

MISSION OF THE DEPARTMENT

1.To provide strong theoretical foundation and hands-on practical training in core areas of Electronics Engineering.
2.To enhance students' technical competencies through laboratories, workshops, projects, and industry-oriented activities.
3.To encourage innovation, problem-solving skills, and the use of emerging technologies such as IoT, embedded systems, automation, and electric vehicles.
4.To develop professionally competent, socially responsible, and ethically strong engineers capable of lifelong learning.
5.To promote teamwork, leadership qualities, and continuous improvement among students and faculty members.

EDITORIAL COMMITTEE



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Lecturer, Electronic



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MESSAGE FROM THE HOD



Itgives me immensepleasuretopresenttheDepartment Newsletter of Electronics Engineeringfor theacademicsession 2026–2027. Our department is committed to academic excellence, practical learning, and innovation. I appreciate the dedicated efforts of our faculty members and the enthusiasm of our students in various academic and co-curricular activities.

Together, we strive to nurture technical skills, creativity, and professional excellence for a brighter future.

"Learning, Innovation, and Excellence for a Better Tomorrow."

Mrs. Payal Singh
Head of Department
Electronics Engineering
Government Polytechnic, Siwan

DEPARTMENT FACULITY



- Name: Manisha Kumari
- Designation: L ecturer (Electronics Engineering)
- Qualification: B.Tech
- Area of Expertise: EMSD in ECIL and Teaching
- Experience: Technical Officer in ECIL (1.5 Yr), Lecturer ()



- Name: Priyanka Kumari
- Designation: Guest Lecturer (Electronics Engineering)
- Qulification: B.Tech
- Experience: As a guest lecturer at GP Siwan



- Name: Akhilendra Kumar
- Designation: Guest Lecturer (Electronics Engineering)
- Qulification: B.Tech and M.E
- Experience:

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DEPARTMENT FACULITY



- Name:Md.Kaif Sohsil
- Designation: GuestLecturer(ElectronicsEngineering)
- Qualification: B.Tech
- Experience: As a guest lecturer (Electronics Engineering)

DEPARTMENT LAB ASSISTANT'S



- Name: Shivam Mayank
- Designation: Guest Lab Assistant
- Qulification: Diploma in Electronics Engineering
- Experience: As a guest lab assistant in GP Siwan from 6 month



- Name: Suryanshu Singh
- Designation: Guest Lab Assistant
- Qulification: Diploma in (Electronics engg) and B.Tech in CSE
- Experience: As a guest lab assistant in GP Buxur from 1 year in electronics department and As a lab assistant in GP Siwan

EVENTS & WORKSHOPS

16\03\26 to 18\03\26

1.ELECTRICAL VECHICLE WORKSHOP

The activity titled 'ELECTRIC VECHICLE(EV) workshop "was planned to provide participants with relevant knowledge and pratical exposure in the selected areas. TO introduce participants to electric-vechicle ,technology,major subsystem,charging methods, and energy applications. TO programe was intended to connect classroom learning with pratical learning.

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DAY1:- INTRODUCTION

- An Electric Vehicle (EV) is a vehicle that uses an electric motor for propulsion instead of a conventional petrol or diesel engine. It operates using electricity stored in rechargeable batteries. These batteries can be charged using an external power source.
- Electric vehicles are an important part of modern transportation because they help reduce air pollution and dependence on fossil fuels. They produce no exhaust emissions while driving, making them more environmentally friendly than conventional petrol and diesel vehicles.
- The main components of an electric vehicle include a battery pack, electric motor, controller, inverter, and charging system. The battery stores electrical energy, and the electric motor converts this energy into mechanical energy to move the vehicle.
- Electric vehicles are available in different forms, such as electric cars, electric buses, electric bikes, electric scooters, and electric three-wheelers.
- The major advantages of electric vehicles are lower running costs, reduced noise pollution, less maintenance, and improved energy efficiency. However, challenges such as charging time, battery cost, and charging infrastructure still need attention.
- In conclusion, electric vehicles are a promising technology for sustainable transportation. They play an important role in reducing environmental pollution and supporting the development of cleaner and greener mobility.

DAY2:-DESIGN AND IMPLEMENT



- The hands-on training provided practical knowledge about electric vehicle technology, its components, and its working principles. It helped improve technical understanding and awareness of EV maintenance and safety.

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DAY3:- CONCLUSION AND LEARNING OUTCOMES

- The three-day Electric Vehicle (EV) workshop training was a valuable learning experience that provided basic theoretical and practical knowledge about electric vehicle technology. During the workshop, we learned about different types of electric vehicles, their main components, battery systems, electric motors, charging systems, and safety precautions.
- The hands-on training helped us understand the working principles of electric vehicles and the functions of their major components. We also gained knowledge about EV maintenance, basic fault diagnosis, and the importance of battery management systems.
- This workshop increased our technical knowledge and awareness of modern automotive technology. It also helped us understand the importance of electric vehicles in reducing air pollution and promoting sustainable transportation.

LEARNING OUTCOMES

- PARTICIPANTS GAINED AN OVERVIEW OF EV ARHITECTURE AND MAJOR COMPONENTS.
- PARTICIPANTS BECAME AWARE OF BATTERY MANAGEMENT AND CHARGING CONCEPTS.
- PARTICIPANTS UNDERSTOOD THE IMPORTANCE OF ELECTRICAL SAFETY WHILE WORKING WITH EV SYSTEM
- PARTICIPANTS EXPLORED CAREER AND INNOVATION OPPORTUNITIES IN ELECTRIC MOBILITY

15\04\26 TO 16\04\26

TWO DAYS TRAINING OF ROBOTICS

- Robotics training is a learning program that provides knowledge about the design, construction, programming, and operation of robots. Robotics is a branch of technology that combines mechanical engineering, electrical engineering, electronics, and computer programming to develop intelligent machines.
- The main objective of robotics training is to develop technical knowledge and practical skills related to robotic systems. During the training, students learn about different types of robots, sensors, motors, controllers, and robotic programming.
- Robotics training also helps students understand how robots perform tasks automatically with minimum human intervention. Practical activities may include assembling robots, connecting electronic components, programming microcontrollers, and controlling robot movements.
- Robotics is widely used in industries, healthcare, agriculture, manufacturing, space exploration, and education. It helps improve productivity, accuracy, efficiency, and safety.
- In conclusion, robotics training is important for developing technical skills and understanding modern automation technologies. It also provides knowledge about future career opportunities in robotics, automation, and artificial intelligence.

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TRAINING ON ROBOTICS





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INTRODUCTION

GOVERNMENT POLYTECHNIC SIWAN organized a training programme on Robotics Technology to introduce participants to the fundamentals,working principles,components,and pratical applications of robotics. The programme aimed to enhance technical knowledge and develop pratical skills among students and facultu members in the field of modern automation and robotics



The training programe on Robotics Technology provided an opportunity for participants to enhance their understanding of robotics , automation,sensors,actuators, and control systems. it helped promote pratical learning and awareness of emerging technologies relevant to ELECTRONICS ENGINEERING and others technical disciplines.

- **robotics training is important for developing technical skills and understanding modern automation technologies. It also provides knowledge about future career opportunities in robotics, automation, and artificial intelligence**

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EVENTS



FAREWELL PARTY FOR BATCH 2023-2026



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