THE ELECTRICAL PULSE

DEPARTMENT OF ELECTRICAL ENGINEERING



Session:-2026_2027

Government polytechnic siwan

DEPARTMENT OF SCIENCE, TECHNOLOGY AND TECHNICAL EDUCATION

Government of Bihar

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About this issue

This issue records the activities, achievements and ideas of the department during the session.

- Technical events: drone workshop, Infosys Springboard, 3D printing / IoT and EV training
- Student achievement: Second Prize at TECH VISTA 2K26 for Team FADE
- Campus life: farewell party, hostel gym and annual prize distribution

Vision & Mission

DepartmentofElectricalEngineering–Government Polytechnic Siwan

The Department of Electrical Engineering works under the Department of Science, Technology and Technical Education, Government of Bihar. It trains diploma engineers in electrical machines, power systems, control and renewable energy, with strong emphasis on laboratory practice, workshops and industry exposure. The vision and mission below guide every programme, project and activity of the department.

Vision of the Department

To emerge as a Centre of Excellence in Diploma-level Electrical Engineering education, nurturing competent, ethical and industry-ready electrical professionals through performance-oriented learning, multidisciplinary exposure, innovation and sustainable practices, aligned with contemporary national educational reforms, and contributing meaningfully to societal and national development.

Mission of the Department

The Department of Electrical Engineering is committed to:

- **M1:** Deliver competency-based electrical engineering education with strong practical orientation.
- **M2:** Foster ethics, innovation, sustainability and professional skills.
- **M3:** Promote lifelong learning, industry linkage and societal engagement.

Vision of the Institute

"To be an institute of excellence in technical education, empowering individuals to realize their potential and contribute to societal advancement through innovative teaching, training and community engagement."

Mission of the Institute

- To provide holistic education that fosters critical thinking, creativity and ethical leadership.
- To train students to thrive in a rapidly evolving global landscape.
- To prepare students to drive innovation for the betterment of society.

Program Educational Objectives (PEOs)

- **PEO 1:** Develop technically competent and employable diploma engineers with strong practical skills.
- **PEO 2:** Instil ethical values, teamwork and societal responsibility in professional practice.
- **PEO 3:** Promote lifelong learning, innovation and career progression through continuous skill enhancement.

Program Outcomes (POs)

What a diploma graduate should know and be able to do

Program Outcomes describe the knowledge, skills and attitudes that every diploma engineer of the department is expected to develop by the end of the programme. They connect classroom learning with laboratory work, projects and real industry needs.

PO1 **Basic and Discipline-specific Knowledge**
Applyknowledge ofbasicmathematics, science and engineering fundamentals to solve problems in the specific engineering discipline.

PO2 **Problem Analysis**
Identifyandanalyze well-defined engineering problems using codified standard methods.

PO3 **Design / Development of Solutions**
Designsolutionsforwell-defined technical problems and assist with the design of system components or processes to meet specified needs.

PO4 **Engineering Tools, Experimentation and Testing**
Apply modernengineeringtoolsand appropriate techniques to conduct standard tests and measurements.

PO5 **Engineering Practices for Society, Sustainability and Environment**
Demonstrateengineeringpractices that consider safety, societal and environmental aspects.

PO6 **Project Management**
Planand executeprojects while managing resources, timelines and technical requirements.

PO7 **Life-long Learning**
Analyzeindividualneeds and engage in independent and life-long learning to keep pace with changing technology.

Program Specific Outcomes (PSOs)

Outcomes specific to Electrical Engineering

PSO1 **Installation, Operation & Maintenance**
Perform installation, operation and maintenance of electrical systems using safe and professional practices.

PSO2 **Emerging Technologies**
Apply emergingelectricaltechnologies ethically with adaptability, teamwork and continuous learning.

> *Theory builds the foundation; practice builds the engineer.*

Editorial Committee

The team behind The Electric Pulse



Mr. Pranav Kumar Nirala
CHIEF EDITOR



Mr. Vicky Kumar Baitha
EDITOR



Ms. Anamika Kumari
ASSOCIATE EDITOR



Mr. Prashant Kumar
ASSOCIATE EDITOR

The Electric Pulse is the departmental magazine of Electrical Engineering, Government Polytechnic Siwan. It is planned and edited by the faculty editorial board with the active help of student members, who collect articles, photographs and reports from across the department. Our aim is to give students a platform to write, to showcase their technical work and to preserve the memories of the session.

Student Members

Students who supported the editorial work



Shahil Kumar
Roll No. 26/EE/24 · Student Member



Dilip Kumar
Roll No. 55/EE/24 · Student Member

Acknowledgement

The editorial committee sincerely thanks the Principal, the Head of Department, all faculty members, technical staff and the students who contributed articles, photographs and reports. Their cooperation and enthusiasm have made this edition possible.

> *A magazine is a mirror of its department – every article here is a student's idea turned into words.*

Message from the Chief Editor & Head of Department



Mr. Pranav Kumar Nirala
HEAD OF THE DEPARTMENT & CHIEF EDITOR
Department of Electrical Engineering, Government Polytechnic Siwan

It gives me immense pleasure to present this edition of the Departmental Magazine of Electrical Engineering. This magazine is a reflection of the academic strength, creativity and innovative spirit of our students and faculty members.

The field of Electrical Engineering is continuously evolving, playing a crucial role in power systems, renewable energy, electric vehicles, automation, smart grids and modern industrial applications. Our department is committed to imparting quality technical education that blends strong theoretical foundations with hands-on practical exposure. We strive to prepare our students to meet the challenges of emerging technologies and industry requirements.

I am proud of the efforts made by our students in academics, projects, seminars, technical events and extracurricular activities. This magazine provides a platform for students to express their technical ideas, research insights, creative writing and innovative thoughts. Such initiatives not only enhance technical knowledge but also develop communication skills, confidence and teamwork.

I appreciate the sincere efforts of the editorial team, faculty coordinators and all contributors who have worked tirelessly to bring out this magazine. Their dedication and teamwork deserve special commendation.

I sincerely hope that this magazine will inspire students to think innovatively, explore new ideas and strive for excellence in their academic and professional careers. I wish the Department of Electrical Engineering continued success and growth in the years to come.

Best wishes to all,
Mr. Pranav Kumar Nirala
Head of the Department & Chief Editor

In this issue

- **Literary Section:** a feature on technical education and a self-reliant India
- **Technical Events & Training:** drone workshop, Infosys Springboard, 3D printing / IoT / EV training and the TECH VISTA 2K26 second prize
- **Campus Life:** farewell party, hostel gym and the annual prize distribution

ELECTRICAL ENGINEERING POWERING THE FUTURE



NITISH KUMAR
ROLL NO :- 24/EE/24
ELECTRICAL DEPARTMENT

Introduction

Electrical Engineering is one of the most important branches of engineering that plays a vital role in modern life. From

electricity generation and transmission to electric vehicles and industrial automation, it is the backbone of technological development.

Emerging Technologies

Renewable Energy: Solar and wind power are helping reduce pollution and promote sustainable development.

Electric Vehicles: EVs are transforming transportation through efficient motors, advanced batteries, and charging

systems. Smart Grids: Digital monitoring and automation improve electricity distribution, reliability, and energy

efficiency. Industrial Automation: PLCs, sensors, and robotics make industries smarter, safer, and more productive.

Role of Electrical Engineers

Electrical engineers design, install, operate, and maintain electrical systems. They contribute to innovation in power

generation, renewable energy, electrical machines, automation, and energy management. For diploma students,

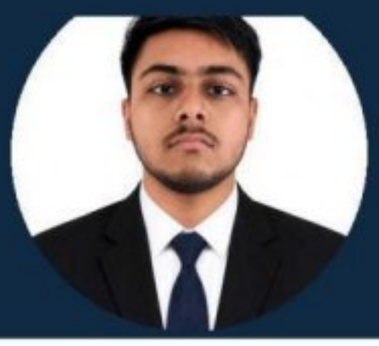
practical knowledge, technical skills, creativity, and continuous learning are essential for building a successful career.

Conclusion

The future of electrical engineering is full of opportunities. With the growing demand for clean energy, electric mobility,

and smart technologies, electrical engineers will play a significant role in building a sustainable and technologically

advanced world.



SHAHIL KUMAR

Roll No. : 26/EE/24

Electrical Engineering Department

विद्युत ऊर्जा: बदलते भारत की नई शक्ति

मनुष्य के जीवन में ऊर्जा का हमेशा से विशेष महत्व रहा है। समय के साथ उसकी आवश्यकताएँ बढ़ती गईं और इन्हीं आवश्यकताओं ने विज्ञान को नए आविष्कारों की दिशा दी। बिजली भी ऐसी ही एक महत्वपूर्ण खोज है, जिसने मानव जीवन को पूरी तरह बदल दिया। आज सुबह उठने से लेकर रात को सोने तक हमारा जीवन किसी न किसी रूप में बिजली पर निर्भर रहता है। यह कहना गलत नहीं होगा कि बिजली ने आधुनिक जीवन को नई गति प्रदान की है।

आज शिक्षा, चिकित्सा, कृषि, उद्योग और संचार—हर क्षेत्र में बिजली की महत्वपूर्ण भूमिका है। गाँवों में सिंचाई के साधनों से लेकर शहरों के बड़े-बड़े कारखानों तक विद्युत ऊर्जा का उपयोग किया जाता है। पहले जिन कार्यों को पूरा करने में कई घंटे लगते थे, आज मशीनों की सहायता से वे कम समय में पूरे हो जाते हैं। इस प्रकार बिजली ने न केवल हमारा जीवन आसान बनाया है, बल्कि देश की आर्थिक प्रगति में भी महत्वपूर्ण योगदान दिया है।

लेकिन विकास के साथ बिजली की माँग भी लगातार बढ़ रही है। कई स्थानों पर आज भी पर्याप्त ऊर्जा उपलब्ध कराना एक चुनौती है। ऐसे में केवल बिजली का उत्पादन बढ़ाना ही पर्याप्त नहीं, बल्कि उसका समझदारी से उपयोग करना भी आवश्यक है। हमें अनावश्यक रूप से जलती बत्तियाँ और चलते पंखे बंद रखने चाहिए तथा ऊर्जा के वैकल्पिक स्रोतों को अपनाना चाहिए।

सूर्य, हवा और पानी प्रकृति के ऐसे उपहार हैं, जिनसे स्वच्छ ऊर्जा प्राप्त की जा सकती है। सौर ऊर्जा और पवन ऊर्जा जैसे स्रोत पर्यावरण को सुरक्षित रखने में सहायक हैं। भारत में इनका उपयोग बढ़ना एक सकारात्मक कदम है। आने वाले समय में नवीकरणीय ऊर्जा देश की आवश्यकताओं को पूरा करने और पर्यावरण संरक्षण में और भी महत्वपूर्ण भूमिका निभा सकती है।

इस परिवर्तन में विद्युत अभियंताओं का योगदान भी अत्यंत महत्वपूर्ण है। वे बिजली के उत्पादन, पारेषण और वितरण को बेहतर बनाने के साथ-साथ नई तकनीकों के विकास में भी योगदान देते हैं। आज के विद्यार्थियों के पास अवसर है कि वे ज्ञान, कौशल और मेहनत के बल पर ऊर्जा क्षेत्र की चुनौतियों का समाधान खोजें और देश के विकास में भागीदार बनें।

अंततः कहा जा सकता है कि बिजली केवल एक सुविधा नहीं, बल्कि आधुनिक विकास की आधारशिला है। इसका जिम्मेदारी से उपयोग करना हम सभी का कर्तव्य है। यदि हम ऊर्जा की बचत करें और स्वच्छ ऊर्जा को बढ़ावा दें, तो आने वाली पीढ़ियों के लिए एक बेहतर, सुरक्षित और समृद्ध भविष्य बना सकते हैं।

SHAHIL KUMAR

Roll No. : 26/EE/24

Electrical Engineering Department

CIRCUIT BREAKERS

The protective guardians of electrical power systems

ARTICLE BY

DILIP KUMAR

Roll No.: 55/EE/24



INTRODUCTION

Electricity is essential in homes, industries, hospitals and almost every part of modern life. However, overloads and short circuits can cause excessive current, damaging equipment and creating fire or electric-shock hazards. A **circuit breaker** is an automatically operated switch that protects an electrical circuit by interrupting current when an abnormal condition occurs.

WORKING PRINCIPLE

Under normal conditions, the breaker's contacts remain closed and allow current to flow. When a fault is detected, a protective relay or trip unit activates the operating mechanism, separating the fixed and moving contacts. An electric arc may form as the contacts open. The breaker extinguishes this arc using a suitable medium—such as air, vacuum or gas—and stops the current. After the fault is cleared and the system checked, the breaker may be reset according to its design and safety procedure.

MAIN PARTS

- **Contacts:** Carry current and separate during tripping.
- **Operating mechanism:** Opens and closes the contacts.
- **Trip unit / relay:** Detects faults and initiates tripping.
- **Arc-quenching chamber:** Extinguishes the arc.
- **Insulating enclosure:** Provides insulation and protection.

TYPES OF CIRCUIT BREAKERS

- **MCB:** Used mainly in homes and small installations to protect against overload and short circuit.
- **MCCB:** Suitable for higher current ratings and larger installations.
- **ACB:** Uses air for arc extinction and is common in low-voltage industrial panels.
- **VCB:** Extinguishes the arc in a vacuum and is widely used in medium-voltage systems.
- **SF_6 Circuit Breaker:** Uses sulphur hexafluoride gas for insulation and arc extinction in high-voltage applications.

APPLICATIONS

Circuit breakers are used throughout electrical power systems. In homes, MCBs protect lighting and socket circuits. Commercial buildings use breakers for distribution boards, lifts and air-conditioning. Industries use ACBs, MCCBs and medium-voltage breakers to protect motors, transformers and generators. In substations, high-voltage breakers isolate faulty sections so the healthy network can continue operating.

SELECTION OF A CIRCUIT BREAKER

The correct breaker must be selected according to the electrical system and installation. Important factors include:

- **Rated voltage:** Must match the system voltage.
- **Rated current:** Must safely carry the expected load.
- **Breaking capacity:** Must interrupt the prospective short-circuit current.
- **Protection settings:** Must coordinate with the load and other protective devices.
- **Poles and installation:** Must suit the circuit and operating environment.

MAINTENANCE AND SAFETY

Breakers should be inspected and maintained according to the manufacturer's instructions and applicable standards. Signs such as overheating, damaged insulation, unusual noise, loose connections or repeated tripping must be investigated. Never repeatedly reset a breaker without identifying the fault. Before inspection, isolate the supply and verify that the circuit is de-energised using an approved tester. Electrical maintenance should be carried out only by trained and authorised persons using appropriate protective equipment.

CIRCUIT BREAKER AND FUSE

A circuit breaker opens its contacts when protection operates and can usually be reset after the fault is cleared and checks are completed. A fuse protects a circuit by melting its element when excessive current flows; once it operates, the fuse must be replaced. Both devices provide overcurrent protection, but their selection depends on the application.

CONCLUSION

Circuit breakers are vital for the safe and reliable use of electrical energy. They detect abnormal conditions and disconnect faulty circuits, helping reduce equipment damage and electrical hazards. Knowledge of their working principle, types, ratings and safe maintenance is an important part of electrical engineering. Correct selection and proper operation help ensure a dependable power supply.

सौर और नवीकरणीय ऊर्जा : उज्ज्वल भविष्य की ओर



आज दुनिया में बिजली की मांग तेज़ी से बढ़ रही है। कोयला, पेट्रोल और डीज़ल जैसे जीवाश्म ईंधन सीमित हैं और प्रदूषण भी फैलाते हैं। इसलिए सौर, पवन और जल जैसे नवीकरणीय स्रोतों की ओर बढ़ना ज़रूरी हो गया है, क्योंकि ये प्रकृति से मिलते हैं और कभी खत्म नहीं होते।

- **सौर ऊर्जा :** सूर्य की रोशनी को सोलर पैनल से बिजली में बदला जाता है।
- **पवन ऊर्जा :** हवा से टरबाइन घुमाकर बिजली बनती है।
- **जल ऊर्जा :** बांधों और बहते पानी से बिजली पैदा होती है।
- **बायोमास व भू-तापीय ऊर्जा :** जैविक कचरे और पृथ्वी की गर्मी से ऊर्जा मिलती है।

भारत में साल के अधिकतर दिन भरपूर धूप रहती है, इसलिए यहाँ सौर ऊर्जा की संभावना बहुत अधिक है। सोलर पैनल एक बार लगाने के बाद कई वर्षों तक बिजली देते हैं और इनका रखरखाव खर्च कम होता है। इससे बिजली बिल घटता है और दूर-दराज़ के गाँवों तक भी बिजली पहुँचाई जा सकती है।

फायदे : कार्बन उत्सर्जन और प्रदूषण कम होता है, बिजली बिल में बचत होती है, आयातित ईंधन पर निर्भरता घटती है, स्थापना व रखरखाव में रोज़गार मिलता है और सूर्य व हवा जैसे स्रोत कभी खत्म नहीं होते।

चुनौतियाँ : शुरुआती लागत अधिक है, रात में या बादल वाले दिनों में उत्पादन कम होता है, बिजली स्टोर करने के लिए महंगी बैटरियों की ज़रूरत पड़ती है और पैनल लगाने के लिए पर्याप्त जगह चाहिए।

सरकारी पहल : भारत ने 2030 तक अपनी लगभग आधी बिजली क्षमता गैर-जीवाश्म स्रोतों से बनाने का लक्ष्य रखा है। इसके लिए अंतर्राष्ट्रीय सौर गठबंधन (ISA), पीएम-कुसुम योजना (किसानों के लिए सोलर पंप) और पीएम सूर्य घर: मुफ़्त बिजली योजना (घरों की छतों पर सोलर पैनल) चलाई जा रही हैं।

सौर और नवीकरणीय ऊर्जा केवल बिजली का विकल्प नहीं, बल्कि आने वाली पीढ़ियों के लिए स्वच्छ और सुरक्षित भविष्य की नींव है। यदि हम सब सोलर ऊर्जा अपनाएँ और ऊर्जा की बचत करें, तो हरित और आत्मनिर्भर भारत का सपना साकार हो सकता है।

नाम : Ashmuni Kumar

रोल नं. : 301/EE/24

विषय : सौर और नवीकरणीय ऊर्जा

Akash Kumar Giri
Roll No. 601/LE/EE/25



बैडमिंटन
एक लोकप्रिय खेल

परिचय

बैडमिंटन एक तेज़, रोमांचक और लोकप्रिय खेल है, जिसे दुनिया भर में लाखों लोग खेलते और देखते हैं। यह खेल शारीरिक फिटनेस, मानसिक एकाग्रता और तेज़ प्रतिक्रिया क्षमता को बढ़ाने में मदद करता है।

इतिहास

बैडमिंटन की शुरूआत 19वीं शताब्दी में इंग्लैंड में हुई थी। यह खेल धीरे-धीरे यूरोप और फिर पूरे विश्व में लोकप्रिय हो गया। 1992 में इसे ओलंपिक खेलों में शामिल किया गया, जिसके बाद इसकी लोकप्रियता और भी बढ़ गई।

खेल के नियम

बैडमिंटन दो खिलाड़िर्या (सिंगल्स) या दो जोड़ी (डबल्स) के बीच खेला जाता है। इसे बैडमिंटन कोर्ट पर खेला जाता है, जहां नेट के ऊपर से शटल (शटलकॉक) को प्रतिद्वंदबी के कोर्ट में गिराना होता है। खेल 21 अंकों के सेट में खेला जाता है, और पहलो 21 अंक पाने वाला खिलाड़ी या जोड़ी विजेता होता है।



इस खेल के फायदे

- **शारीरिक फिटनेस:** यह खेल शरीर को चुस्त-दुरूस्त रखता है।
- **मानसिक लाभ:** इससे ध्यान केंद्रित करने और तनाव कम करने में मदद मिलती है।
- **तेज़ प्रतिक्रिया:** यह खेल दिमाग और शरीर दोनों को तेज़ बनाता है।
- **सामाजिक जुड़ाव:** इसे खेलने से आप नए लोगों से जुड़ते हैं और टीम भावना बढ़ती है।

प्रसिद्ध खिलाड़ी

बैडमिंटन के इतिहास में कई महान खिलाड़ियों ने अपनी प्रतिभा से इस खेल को नई ऊँचाई दी है, जिनमें लिन डान (चीन), कैरोलिना मारिन (स्पेन), पी.वी. सिंधु (भारत), सायना नेहवाल (भारत) और किदांबी श्रीकांत (भारत) प्रमुख हैं।

निष्कर्ष

बैडमिंटन केवल एक खेल नहीं, बल्कि एक स्वस्थ और सक्रिय जीवनशैली का हिस्सा है। यह खेल हमें अनुशासन, धैर्य और मेहनत का महत्व सिखाता है। इसलिए, हमें बैडमिंटन जैसे खेलों को अपने जीवन में शामिल करना चाहिए।

खेलो बैडमिंटन, रहो फिट और मस्त !



PAWAN KUMAR RAI

Roll No. : 31/EE/24

Electrical Engineering Department

The Day Electricity Disappeared

Imagine waking up one morning. Everything is normal. Birds are singing, and people are getting ready to go to work as they do every day. Suddenly, everyone discovers that there is no electricity anywhere in the world, and it can never be brought back. It sounds like a fantasy, doesn't it?

Without electricity, all devices—mobile phones, televisions, refrigerators, trains, bulbs, and factory machines—would stop working. The livelihoods of millions of people would be affected, and our daily routine would also face a major change.

Slowly, people would begin to realize that electricity is not merely a convenience but an essential part of modern life. The treatment of patients in hospitals would be affected, transportation systems would collapse, and communication services would come to a halt. The world that we consider developed because of technology would suddenly go several decades backward.

But in the middle of this darkness, a question would continue to arise: Have we ever tried to understand the true importance of electricity? We often become upset even after a few hours without electricity, while electrical engineers, power station workers, linemen, and power plant employees work day and night to keep this system running smoothly.

This imagination makes us think: If electricity disappeared forever, what would our future look like? Would the development of science and technology come to a complete stop? Would we begin living like people of the past once again?

Perhaps the greatest message of this imagination is that we should understand the value of electricity. We should use it wisely and continuously work towards discovering new sources of energy. Because electricity does not merely remove darkness; it gives movement to our lives, power to our dreams, and lays the foundation for a better future.

> *“Electricity may be invisible, but its power to change the world is undeniable.”*

PAWAN KUMAR RAI

Roll No. : 31/EE/24

Electrical Engineering Department

TECH FEATURE | ELECTRICAL ENGINEERING

Power Systems:
The Backbone of Modern Civilization

Behind every light switch lies a vast, carefully coordinated network.



Riya Kumari
Roll No. 50/EE/24 | Electrical Engineering

THE VOLTAGE JOURNEY

GENERATION	TRANSMISSION	DISTRIBUTION
11 – 25 kV	132 – 400 kV+	230 V / 415 V

Electricity is so deeply woven into daily life that we notice it only when it fails. Behind every light switch lies a vast, carefully coordinated network known as the power system, which generates, transmits, and distributes electrical energy to millions of consumers around the clock.

Main Components

A power system has three major parts. **Generation** converts primary energy sources such as coal, natural gas, hydro, nuclear, solar, and wind into electricity, usually at 11 to 25 kV. **Transmission** steps this voltage up to 132, 220, 400 kV or higher using transformers, so that power can travel hundreds of kilometres with minimal losses. **Distribution** steps the voltage down at substations and delivers it to homes, industries, and businesses at usable levels such as 230 V single-phase or 415 V three-phase.

Why High Voltage?

For a given power, higher voltage means lower current, and since losses are proportional to I^2R, transmitting at high voltage greatly reduces energy wasted as heat. This principle is the reason long-distance transmission lines operate at very high voltages.

> ***Higher voltage, lower current, far less energy wasted as heat.***

Stability and Protection

A power system must keep supply and demand balanced at every instant while holding frequency (50 Hz in India) and voltage within limits. Protective devices such as circuit breakers, relays, and fuses detect faults like short circuits and isolate the affected section quickly, preventing damage and blackouts. Control centres monitor the entire grid in real time using SCADA systems.

Modern Challenges and Trends

The power sector is changing rapidly. Large-scale integration of renewable energy brings variability, since solar and wind output depends on weather. To manage this, modern grids are adopting smart grid technologies, energy storage systems, HVDC links, and advanced forecasting. Electric vehicles and rising demand add further pressure, making grid modernization essential.

Conclusion

Power systems are among the greatest engineering achievements of the last century. As the world moves toward clean and sustainable energy, the role of power engineers will only grow, since reliable, affordable, and green electricity is the foundation of economic development and quality of life.

Workshop on Drone Technology

Three-day workshop at Government Polytechnic Siwan

2 – 4 April 2026 **10:30 am – 5:00 pm** **GP Siwan**

Government Polytechnic Siwan organised a three-day Workshop on Drone Technology from 2nd to 4th April 2026. The workshop introduced students to unmanned aerial vehicles (UAVs): how they fly, what they are made of and where they are used, from agriculture and surveying to mapping, inspection and emergency response.



Official poster of the workshop with the patron, convenors and trainer



Students and faculty attending the inaugural session



Trainer addressing the participants on drone fundamentals

Organising Team

- **Patron:** Dr. Praveen Pachauri (Principal, GP Siwan)
- **Convenors:** Mr. Sujeet Patel (Lecturer, ME); Mr. Shashi Bhushan Kumar (Lecturer, ME); Md. Ekbal Husain (Lecturer, ECE)
- **Trainer:** Abhishek Kumar, Drone Engineer, IDR Research & Development Pvt. Ltd.

Why drones matter for electrical students

- Brushless motors and speed controllers (ESC)
- Lithium battery packs and charging
- Power electronics and flight controllers
- Growing career scope in drone services

Infosys Springboard Training

Digital skill-building session for students

Skill Development **Certificates** **GP Siwan**

Students of Government Polytechnic Siwan took part in a training session on **Infosys Springboard**, a free digital learning platform that offers courses in technology, programming, communication and workplace skills. The session showed students how to register, choose courses and learn at their own pace, and how certificates earned online can strengthen their profile for jobs and higher studies.



Participants proudly holding their certificates



Training session in progress in the seminar hall



A full hall of enthusiastic learners

Why this training matters

- Learn technical and soft skills anytime, free of cost, alongside the polytechnic curriculum
- Earn certificates that add value to a student's resume
- Prepare for campus placements with aptitude, communication and coding practice
- Build the habit of self-paced, lifelong learning (PO7)

Three-Day Hands-On Training

3D Printing, IoT, Robotics, Drone Technology & Electric Vehicles

August 2026 **GP Siwan**

Government Polytechnic Siwan organised a three-day hands-on training programme on 3D Printing, IoT, Robotics, Drone Technology and Electric Vehicles. The programme aimed to introduce students to emerging technologies and equip them with practical, industry-ready skills. Combining interactive theory sessions with practical lab work, the training allowed participants to learn by doing: building, testing and experimenting with their own hands.



Students and faculty attending the opening session in the seminar hall



3D printers set up in the lab for practical work



Participant working on a 3D printer

Programme highlights

- Dedicated sessions on 3D Printing, IoT, Robotics, Drones and EVs
- Interactive theory paired with live practical lab work
- Hands-on learning for real skill development
- Industry-ready skills that support projects, internships and jobs

Second Prize at TECH VISTA 2K26

Innovation in AI – Team FADE

14 October 2026 **Hackathon: "Challenge a Technology"** **GP Saharsa**



Team FADE receiving the 2nd Prize and certificates

We are delighted to share that talented students of Government Polytechnic Siwan secured the **2nd Prize** at **TECH VISTA 2K26 – "Challenge a Technology"**, a hackathon organised by Government Polytechnic Saharsa on 14 October 2026.

Project: FADE (AI-Powered Examination & Assessment Platform)

FADE is an innovative platform designed to simplify examination and assessment processes by converting documents into editable formats, verifying results and providing secure, trusted result validation through QR codes.

Team FADE	Role	Roll No.
Shubhang Kumar	Team Leader	05/EE/25
Sujal Kumar	Team Member	37/EE/25
Wasim Alam	Team Member	57/EE/25



Prize and cheque presented to the team

Congratulations to Team FADE! Their achievement reflects the spirit of innovation, teamwork and technological excellence among our students. This accomplishment brings pride to our institution and inspires other students to think creatively, build solutions and turn ideas into reality.

Farewell Party – Batch 2023–2026

A warm goodbye to our outgoing diploma engineers

Farewell | Batch 2023–2026 | Electrical Engineering



Faculty members and students of the 2023–2026 batch together on the decorated stage

The department bid farewell to the 2023–2026 batch with an evening of music, memories and good wishes. Faculty members and students gathered on a beautifully decorated stage to share the last moments of their journey together as a class.

Three years of laboratories, projects, workshops and festivals have shaped this batch into capable diploma engineers. The seniors shared their experiences and advice with juniors, and the faculty wished them success in jobs, higher studies and entrepreneurship.

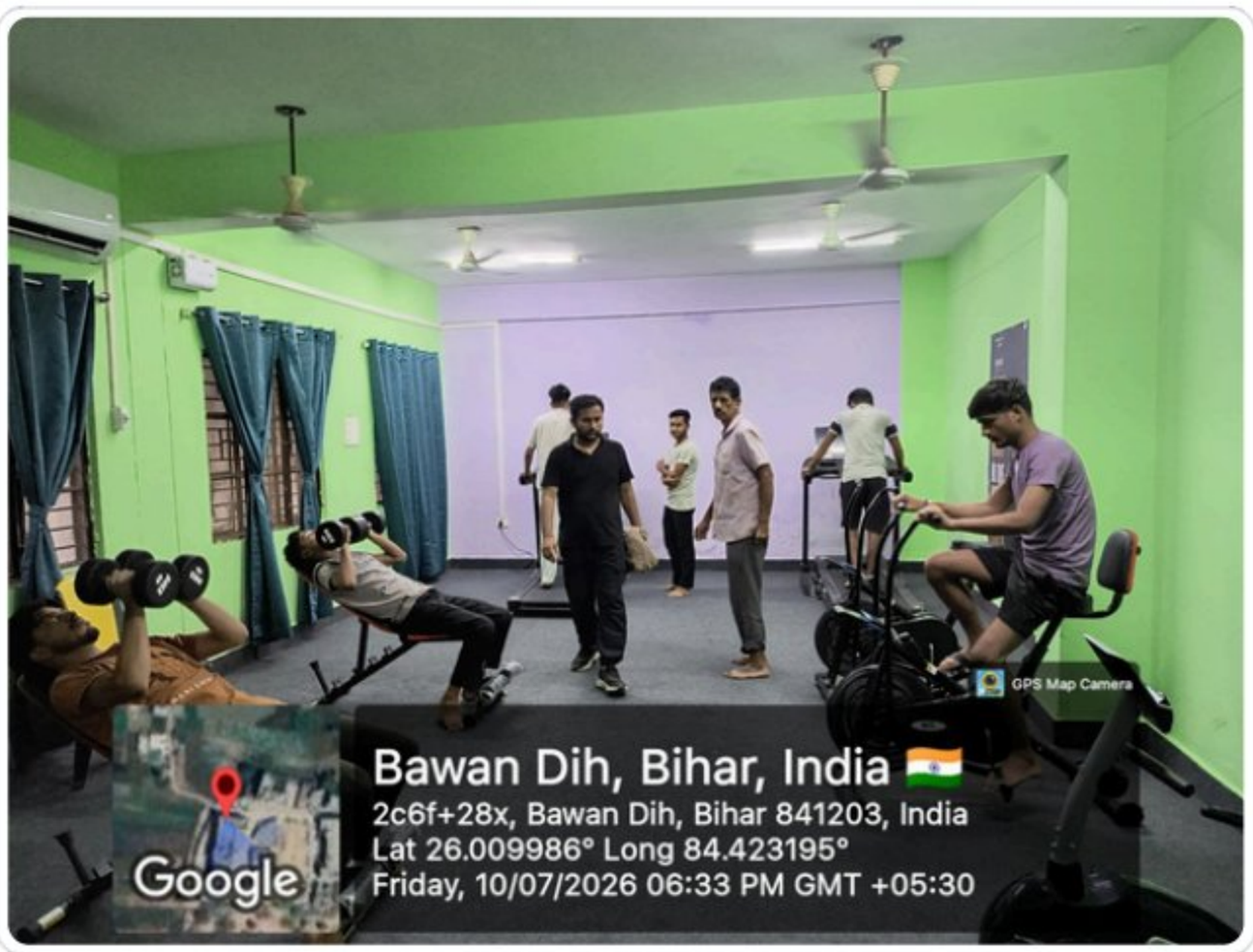
> ***Farewell is not the end of the journey – it is the start of a new circuit. Stay connected and keep the pulse alive.***
>
> — Department of Electrical Engineering

Gym of College Hostel

Fitness facility for hostel students

Hostel Facility | July 2026 | Bawandih Campus

A well-equipped gym is now available for students staying in the college hostel. A healthy body supports a healthy mind, and regular exercise helps students stay active, disciplined and focused on their studies.



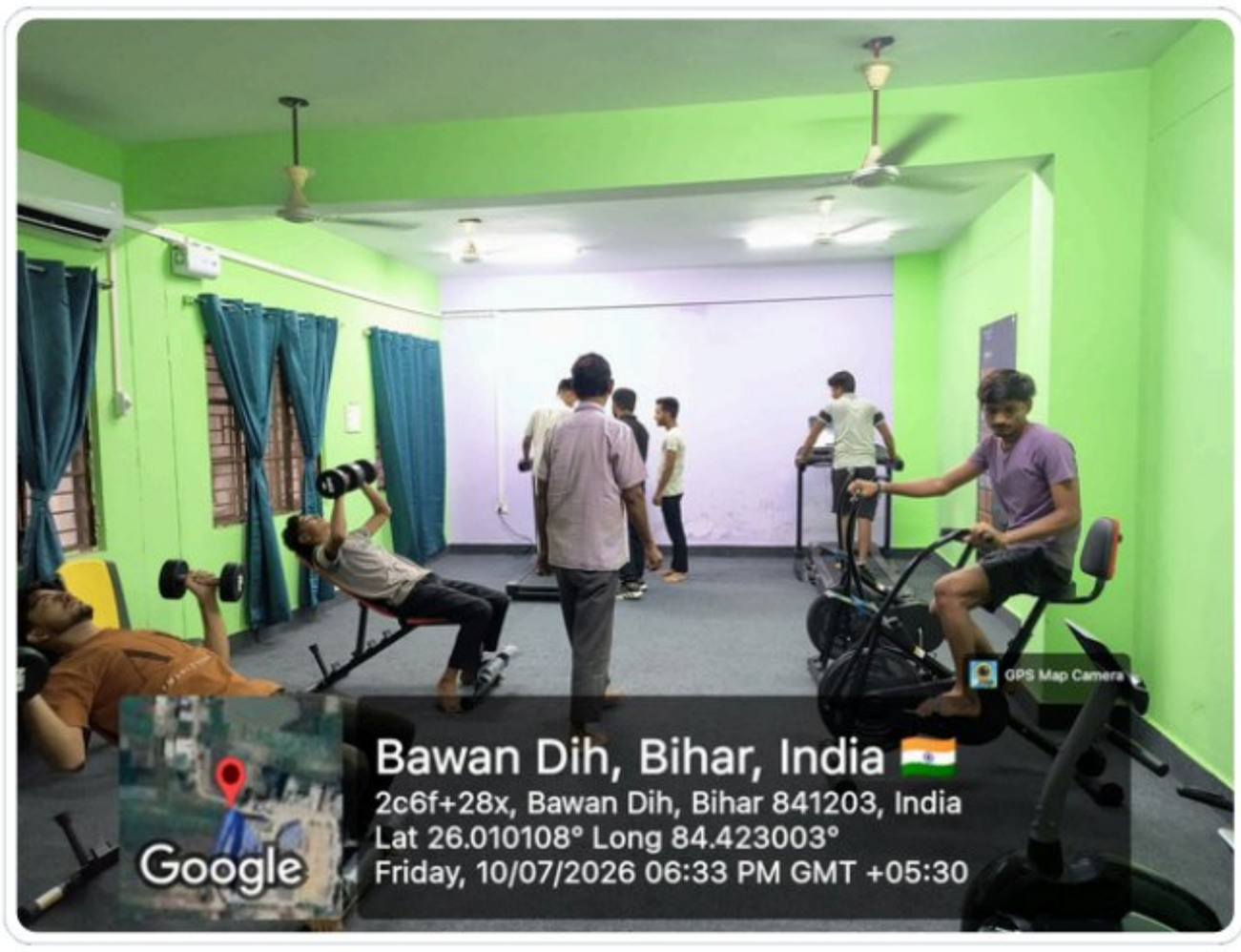
Students exercising on benches and cardio machines

Equipment

- Dumbbells and adjustable benches
- Exercise (air) bikes and treadmills
- Well-lit, ventilated hall with fans and AC

Benefits for students

- Better fitness, stamina and posture
- Stress relief during exams and projects
- Discipline and teamwork through regular routine



The gym in use during the evening session

> *A fit student learns better, works harder and stays calmer under pressure.*

Annual Prize Distribution Ceremony

Celebrating the achievers of the session

Annual Function | Prize Distribution

The Annual Prize Distribution Ceremony was celebrated with great enthusiasm. Winners received certificates from the chief guest in a hall decorated with tricolour balloons and flowers, while teachers and friends cheered them on.









Congratulations to all the winners and participants! Such ceremonies motivate every student to work harder, take part in more activities and aim higher next year.