

Report on the Workshop on “A Workshop on *Bluetooth Modulator Based Robo Car and Practical Demonstration*”

Organized by: Electrical Engineering Department

Theme: Robotics, Drones, and Futuristic Technologies

Date: 22 September 2025

Venue: Electrical Engineering Department, GKV

1. Introduction

The Electrical Engineering Department successfully conducted a one-day workshop titled “**Bluetooth Modulator Based Robo Car and Practical Demonstration**” on **22 September 2025**, under the thematic umbrella of *Robotics, Drones, and Futuristic Technologies*. The workshop aimed to introduce students to smart robotic systems and strengthen their understanding of modern automation principles.

Students from various semesters actively participated, displaying a strong curiosity toward emerging domains in engineering—proving once again that while trends may change every season, a solid technical foundation never goes out of style.

2. Objective of the Workshop

The workshop was designed to:

- Familiarize students with the concept and working of Bluetooth-controlled robotic cars.
 - Provide hands-on exposure to modules, microcontrollers, sensors, and wireless communication.
 - Inspire students to explore robotics and futuristic technologies as a career path.
 - Bridge classroom learning with real-world engineering applications.
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3. Session Highlights

3.1 Lecture by Society Mentor Mr. Lokesh Bhardwaj

Society Mentor **Mr. Lokesh Bhardwaj** delivered an insightful and engaging lecture on modern robotics.

He explained the architecture of Bluetooth-based robotic systems, breaking down complex ideas into simple, relatable concepts.

With an old-school clarity rarely seen today, he emphasized the importance of fundamentals—reminding students that before chasing AI and drones, one must first learn how a basic circuit breathes.

His session covered:

- Introduction to Bluetooth communication
- Interfacing modules with microcontrollers
- Real-time applications of wireless robotics
- Industry relevance and future possibilities

3.2 Expertise Shared by Society Mentor Mr. Aviral Awasthi

Society Mentor **Mr. Aviral Awasthi** further enriched the workshop by sharing his technical expertise.

He highlighted advanced concepts such as:

- Motor driver circuits
- Sensor integration
- Real-time troubleshooting techniques
- Scalability of small robots into industrial models

His practical approach helped students understand not just *what* works—but *why* it works.

3.3 Encouragement by Head of Department & Society Mentor Mr. Gajendra Singh Rawat

Mr. Gajendra Singh Rawat, Head of the Department and Society Mentor, motivated the students with his encouraging words.

He spoke about the growing relevance of robotics and drones in national development and insisted that students must cultivate discipline, curiosity, and consistency—values that never go out of fashion.

He appreciated the efforts of the organizing team and urged students to actively participate in such technical events.

4. Hands-On Demonstration

A live demonstration of the **Bluetooth Modulator Based Robo Car** was conducted, where students worked practically under the guidance of the mentors.

They learned:

- Module connections
- Programming fundamentals
- Signal responses

- Troubleshooting and testing

The hands-on session was the highlight of the workshop, giving students the confidence to build and experiment with their own robotic prototypes.

5. Coordinators & Team Effort

The event was smoothly executed under the guidance of the Coordinators:

- **Mr. Gajendra Singh Rawat**
- **Mr. Lokesh Bhardwaj**
- **Mr. Aviral Awasthi**

Their constant support ensured that the workshop maintained both academic depth and practical rigor.

The Student Coordinators played a crucial role in the success of the event:

- **Prince Sharma**
- **Dhruv Sharma**
- **Dhruv Pathak**
- **Nitin Joshi**
- **Aryan Kapoor**
- **Ankush Bhatt**

From registrations to technical arrangements, they ensured every detail was handled with precision.

6. Conclusion

The workshop proved to be an enriching learning experience for all participants. Students gained valuable insights into robotics and wireless technologies, along with practical exposure to building and operating a Bluetooth-controlled robotic car.

The event strengthened the department's commitment to promoting innovation and preparing students for the technology-driven future—while still respecting the timeless engineering principles that form the backbone of progress.





























