

SCHOOL OF ENGINEERING & TECHNOLOGY

Neelam Vidya Vihar, Sijoul, Mailam, Madhubani, Bihar – 847235

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DEPARTMENT OF ELECTRICAL ENGINEERING

Event Report: Academic Visit by NIT Patna Professors to the Electric Vehicle Lab, Centre of Excellence, Sandip University, Madhubani

On **19th October 2024**, Sandip University, Madhubani, had the distinct honor of hosting a team of eminent professors from the **National Institute of Technology (NIT) Patna**, who visited the university's prestigious **Electric Vehicle Lab, Centre of Excellence**. The team of experts from NIT Patna included:

- **Dr. Rajib Kumar Mandal**, Head of the Department (HOD) and Associate Professor, Electrical Engineering Department
- **Dr. Gagan Deep Meena**, Assistant Professor, Electrical Engineering Department
- **Dr. Arunangshu Ghosh**, Assistant Professor, Electrical Engineering Department



This academic visit, which aimed to review and evaluate the infrastructure, equipment, and research potential of the Electric Vehicle Lab, was hosted by **Mr. Manjeet Kumar, Head of the Department (HOD), Electrical Engineering Department**, and **Dr. Kunal Kishor Chandan, Head of the Department (HOD), Mechanical Engineering Department**, Sandip University, Madhubani.

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The visit was highly anticipated as the NIT Patna professors are recognized for their vast knowledge and experience in the field of electrical engineering, particularly in cutting-edge areas such as electric vehicles, control systems, and power electronics. Their insights and feedback were expected to provide significant value to the growth of the Electric Vehicle Lab.

Objectives of the Visit:

The primary objectives of the visit were:

1. **Evaluation of Facilities:** To thoroughly inspect the existing infrastructure and resources available at the Electric Vehicle Lab and assess its capability for advanced research.
2. **Feedback and Suggestions:** To offer constructive feedback on how the lab can further improve its facilities and leverage its potential for research and development in electric vehicle technology.
3. **Strengthening Academic Collaboration:** To explore possibilities for future collaborations between Sandip University and NIT Patna in the domain of electric vehicles and related research areas.



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Inspection of the Electric Vehicle Lab:

The inspection commenced with a detailed walkthrough of the Electric Vehicle Lab, which is recognized as a key component of Sandip University's Centre of Excellence. The lab is equipped with modern and advanced tools, including electric vehicle battery simulators, motor controllers, and diagnostic equipment that enable students and researchers to work on real-world electric vehicle applications.



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The NIT Patna team meticulously examined the various equipment and resources available in the lab, paying special attention to the lab's ability to support research activities in areas such as:

- **Battery Management Systems (BMS)**
- **Power Electronics for Electric Vehicles**
- **Electric Motor Drive Systems**
- **Charging Infrastructure**
- **Energy Storage Technologies**

Feedback and Remarks from NIT Patna Professors:

After the inspection, the visiting professors were highly impressed with the facilities at the Electric Vehicle Lab. They appreciated the comprehensive range of tools and technologies available, noting that the lab is **well-equipped to support advanced research** in the field of electric vehicles. Their feedback was overwhelmingly positive, with key remarks including:



- **Dr. Gagan Deep Meena**, in his statement, expressed his admiration for the lab's infrastructure. He stated, "The Electric Vehicle Lab at Sandip University is an excellent facility, equipped with state-of-the-art resources. It holds great potential for

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research and innovation in electric vehicle technology. I am confident that this lab can make significant contributions to the field.”



- **Dr. Rajib Kumar Mandal**, as the Head of the Electrical Engineering Department at NIT Patna, emphasized the importance of utilizing the lab’s resources to foster academic growth and industry partnerships. He remarked, “This facility is a testament to the university’s commitment to providing students and researchers with the tools they need to succeed. I believe this lab can serve as a hub for collaborative research projects between academia and industry.”

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- **Dr. Arunangshu Ghosh**, who specializes in power electronics, highlighted the versatility of the lab's equipment and its relevance to emerging trends in electric vehicle technology. He said, "The advanced tools and equipment available here allow for a wide range of research applications. The lab is not only well-suited for academic research but also for addressing practical challenges faced by the electric vehicle industry."



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Future Research and Collaboration:

The visit concluded with discussions on potential avenues for future collaboration between Sandip University and NIT Patna. The professors suggested organizing joint research projects, seminars, and workshops focused on electric vehicle technologies, which would benefit both institutions. Additionally, they encouraged faculty members and students from Sandip University to actively engage in research initiatives and consider publishing their findings in reputed journals.

The feedback from the NIT Patna professors provided valuable insights and guidance for enhancing the research activities at the Electric Vehicle Lab. Their visit also marked the beginning of what is hoped to be a fruitful collaboration between Sandip University and NIT Patna.



Conclusion:

The visit by the team of professors from NIT Patna on **19th October 2024** was a significant event for Sandip University's Electric Vehicle Lab. Their expert evaluation and positive feedback reaffirmed the lab's status as a leading research facility in the region. This visit has not only strengthened ties between Sandip University and NIT Patna but has also opened up new possibilities for research and development in the fast-growing field of electric vehicles.



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The university is committed to building on this momentum and continuing to invest in research infrastructure and academic collaborations to ensure that the Electric Vehicle Lab remains at the forefront of innovation.