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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

ADITYA ENGINEERING COLLEGE (A)

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ABOUT ELECTRICAL DEPARTMENT

Established as one of the major departments of the Institute, the Department of Electrical and Electronics Engineering at Aditya strives to produce highly competent engineers equipped with advanced professional knowledge, entrepreneurial thinking, professional and ethical attitude, critical problem solving and analytical skills through effective teaching learning process, research and industrial collaboration.

The faculty of the department, a rich blend with academic and industrial experience, have been constantly carrying out research on many cutting-edge technologies with regular publications in ELSEVIER and other top international journals. The academic quality of the department is reflected by the laurels won by the students and the distinguished positions in industry and academia occupied by alumni.

The department strives to upgrade the knowledge of faculty and students by organizing various Workshops, Industry-Institute Interactions, Continuous Improvement Programs inviting eminent personalities from Industry and academic Institutions, Seminars and Research activities. Students are provided internship programs in various power plants and industries like Reliance, SAIL, HPCL, GMR, GVK, VTPS, Vizag steel plant, ONGC, APGPCL, APEPDCL etc.

The department spares no expense to equip the labs with latest equipment like Three phase AC Integrated Machine, DC Integrated Machine, Wireless Transmission of Electric Power using Tesla Coil and technical software like MATLAB & P-Spice.

VISION OF THE DEPARTMENT

To excel in electrical education, research, and technology in tune with societal needs.

MISSION OF THE DEPARTMENT

MISSION 1

Impart quality education and enterpreneur skills.

MISSION 2

Provide cutting edge technologies for research and sustainability in collaboration with industry.

MISSION 3

Nuture professional ethics and lifelong learning in tune with societal needs.

MATLAB

by: A.Sujitha

MATLAB, or Matrix Laboratory, is a powerful programming language and interactive environment widely used in the field of electrical engineering. Developed by MathWorks, MATLAB is a popular choice for analyzing and simulating complex systems, processing data, and designing control systems.

Electrical engineering is a vast field that involves the study of electricity, electronics, and electromagnetism. MATLAB is a versatile tool that can be used in a variety of electrical engineering applications, including signal processing, power system analysis, control systems design, and circuit design. Here are some of the key areas where MATLAB is used in electrical engineering:

1. Signal Processing: MATLAB is widely used for signal processing tasks, such as filtering, noise reduction, and frequency analysis. The Signal Processing Toolbox in MATLAB provides functions for a wide range of signal processing tasks, including signal generation, spectral analysis, time-frequency analysis, and wavelet analysis.

2. Power System Analysis: MATLAB is also used for power system analysis, such as load flow analysis, fault analysis, and stability analysis. The Power System Toolbox in MATLAB provides functions for analyzing power systems, such as load flow, fault analysis, and transient stability analysis.

3. Control Systems Design: MATLAB is a popular tool for designing and simulating control systems. The Control System Toolbox in MATLAB provides functions for designing and analyzing control systems, such as PID controllers, state-space controllers, and robust control systems.

4. Circuit Design: MATLAB can be used for circuit design and simulation. The Simulink tool in MATLAB provides a graphical environment for designing and simulating circuits. Simulink is widely used for designing and simulating control systems, power electronics circuits, and digital signal processing systems.

MATLAB is an important tool for electrical engineers because it provides a powerful and flexible platform for analyzing and simulating complex systems. With MATLAB, engineers can quickly prototype and test new ideas, design and analyze complex systems, and optimize system performance.

In addition, MATLAB is easy to learn and use, thanks to its intuitive programming interface and extensive documentation. MATLAB also provides access to a large community of users and developers, who contribute to the development of new tools, functions, and libraries.

In conclusion, MATLAB is a powerful tool for electrical engineers, providing a versatile platform for analyzing and simulating complex systems. MATLAB's broad range of tools and functions make it an essential tool for electrical engineers working in a variety of fields, including signal processing, power systems, control systems, and circuit design.

"The Magnetic Train"

by: P.Ganesh

In a small town, there were three best friends named Alex, Sam, and Emily. They had grown up together, always fascinated by how things worked and dreaming of one day becoming engineers. They would spend hours tinkering with gadgets, building machines, and solving problems together.

One day, when they were all in college studying engineering, they decided to take on a big project together. They wanted to create a new kind of transportation system that was faster, more efficient, and environmentally friendly. They spent months brainstorming ideas, sketching designs, and doing research.

Finally, they came up with a plan to build a high-speed train that ran on magnetic levitation technology. This train would be able to travel faster than any other train in the world, while also producing no pollution or emissions. It was a revolutionary idea, but they knew it would be a huge challenge to build.

Undaunted, they set to work, spending countless hours in the lab, building prototypes, testing different materials, and fine-tuning the design. There were plenty of setbacks along the way, but they never gave up. They were determined to see their dream become a reality.

Finally, after months of hard work, the train was complete. It was sleek and futuristic-looking, with smooth lines and a glossy finish. They were nervous as they prepared for the first test run, but also excited to see if their creation would actually work.

As the train glided along the track, levitating above the ground, they watched with amazement. It was even better than they had imagined, moving at incredible speeds without making a sound. They knew they had created something truly special.

Word of their invention soon spread, and before long, they were being invited to speak at conferences all over the world. People were amazed by what they had accomplished, and many were inspired to pursue careers in engineering themselves.

Years later, when they looked back on their journey, they knew that they had accomplished something truly remarkable. They had shown that with hard work, determination, and a little bit of creativity, anything was possible. And they knew that they would always be friends, united by their love of engineering and their passion for making the world a better place.

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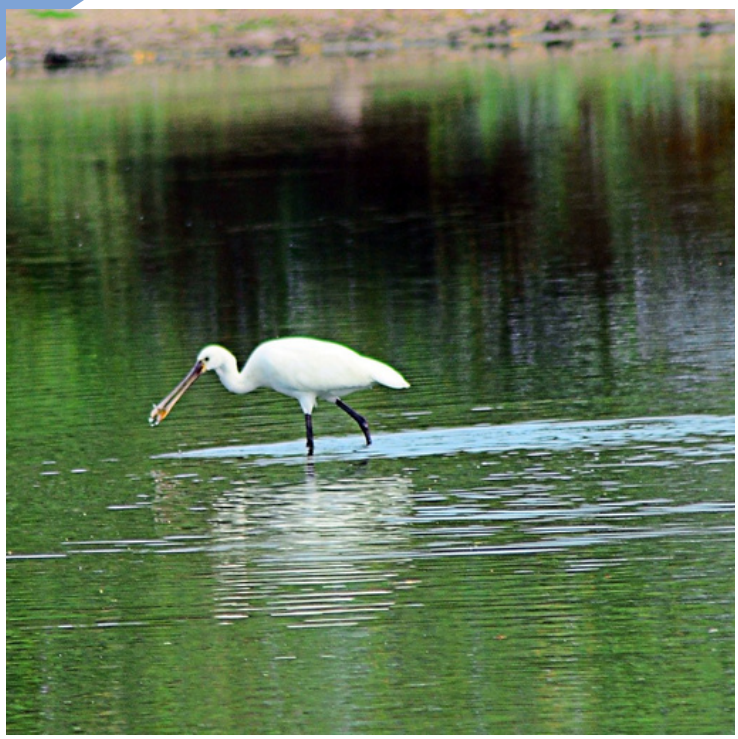

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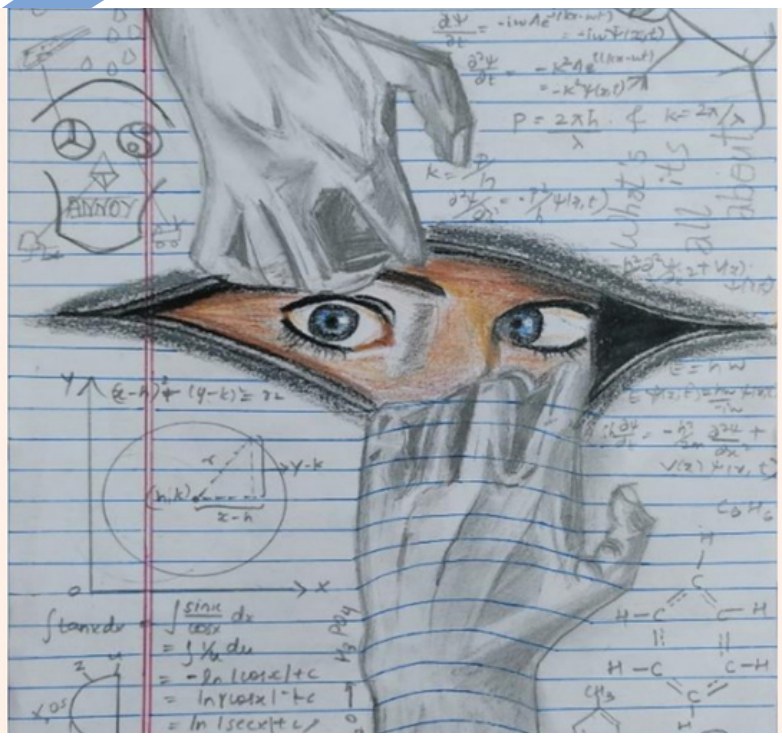

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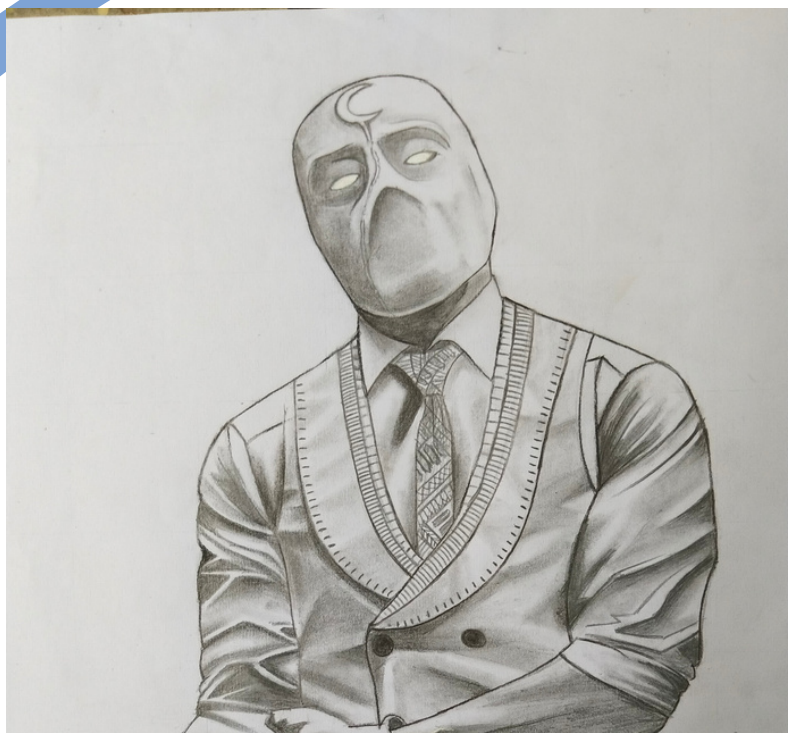

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