



Jacob J Panicker

Roll No.:EE21B021

B.Tech - 2021 and Electrical Engineering

Indian Institute Of Technology, Tirupati

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Github | Website

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## EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech	Indian Institute of Technology, Tirupati	7.76	2021-Present
Senior Secondary	CBSE Board	95.6%	2021
Secondary	ICSE Board	94.3%	2019

## EXPERIENCE

- Kerala State Electricity Board Limited** *May 2019 - Jul. 2019*  
*Power Systems Intern* *Thiruvananthapuram, Kerala*
  - Analyzed Kerala's energy landscape, focusing on the potential of Battery Energy Storage Systems (BESS) to enhance grid stability, optimize renewable energy integration, and manage peak demand.
  - Examined the Kerala State Electricity Board's (KSEB) role in BESS implementation

## PROJECTS

- Image Enhancement for Digital Signal Processing** *Aug. 2023 - Dec. 2023*  
*Dr. Rama Krishna Sai Gorthi* *Github*
  - Implemented Python-based filter function logic in MATLAB, utilizing multiple kernels to enhance noisy images by minimizing noise effectively.
  - Developed image processing techniques including denoising, sharpening, and edge detection to significantly improve image quality.
- Game Development, Inter IIT Tech Meet** *Dec 2022, 2023, 2024*  
*Inter IIT Tech Meet 2022, 2023, 2024*
  - Created the level, setting, and designed story for the game created in 7 days for the Game Dev Challenge in the Inter IIT Tech Meet 2022, 2023 and 2024.
- Tirutsava College Fest** *2022-23 2024-35*  
*IIT Tirupati*
  - Designed the website UI for the college fest in 2023 and 2025 editions of IIT Tirupati techno-cultural fest Tirutsava, in addition to posters for events, with being core member in 2023 edition and committee head in 2025 edition.
- Movie Site Project** *June 2023*  
*HackStack, IIT Guwahati* *Github*
  - Completed a project for the HTML/CSS/JS workshop by HackStack, IIT Guwahati, using Visual Studio Code for development and Mozilla Firefox for hosting the website.
- 24-Hour Digital Clock for Digital Systems** *Jan. 2022 - Mar. 2022*  
*Part of Digital Systems course*
  - Designed a 24-hour digital clock system in Logisim, including circuits for an alarm clock and push-button controls to start/stop the clock.

## TECHNICAL SKILLS

- Programming:** Python, C/C++, Java, Verilog
- Tools/Frameworks:** Blender, Unreal Engine, TINA-TI, Logisim, Visual Studio, LaTeX
- Operating Systems:** Windows *\* Elementary proficiency*

## KEY COURSES TAKEN

- Mathematics:** Linear Algebra, Basic Calculus, Probability & Random Processes
- Electrical and Electronics:** Signals and System, Principles of Measurement, Engineering Electromagnetics, Solid State Devices, Digital Systems Control Systems, Analog Devices, Digital Signal Processing, Electrical Machines, Power Systems, Communication Systems & Communication Networks

## POSITIONS OF RESPONSIBILITY

- Core Member**, Design Committee, Tirutsava 2023, IIT Tirupati *Dec. 2022 - Apr. 2023*
- Core Member**, Quiz Committee, IIT Tirupati *Dec. 2022 - Apr. 2025*
- Committee Head**, Design Committee, Tirutsava 2025, IIT Tirupati *August. 2024 - Feb. 2025*
- Core Member**, Game Dev, Digital Wizards, IIT Tirupati *August. 2023 - Apr. 2024*
- Member**, NSS, IIT Tirupati *August. 2022 - Apr. 2025*

## ACHIEVEMENTS

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- **99.146 percentile**, JEE Main *2021*
  - **AIR 6833**, JEE Advanced *2021*
  - **State Rank 295**, KEAM *2021*
  - **Grade A2**, State Level Maths Talent Search, Kerala *2015*
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