YENUGULA HASHISH

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Academic Details

Year	Degree	Institute	CGPA/Marks(%)
2024	B.Tech Electrical Engineering	IIT Hyderabad	9.11
2020	XII (Board of Intermediate Education Andhra Pradesh)	Sri Chaitanya Junior School	9.69
2018	X (Board of Secondary Education Andhra Pradesh)	Sri Chaitanya High School	10

Publications

- **Study of gate current in advanced MOS architectures:** *Gauhar, G.A., Chenchety, A.,* ***Yenugula, H.****, Georgiev, V., Asenov, A., Badami, O., Solid-State Electronics (2022)*
  - Carried out a comprehensive study of gate current(Ig) in advanced MOS architectures for different gate lengths and cross-section areas using an in-house simulation tool.
  - Contributed by analyzing the Ig vs gate lengths at different Gate Voltages, plotting the graphs, and making illustrations and schematics.

Experience

- **EDR-CAD:** *Under Dr. Oves Mohammed Hussian Badami* Present
  - Currently working on analyzing **Poisson** and **Schrodinger** equation and **carrier concentration** in semiconductors to develop an efficient **simulation tool in C++** based on **1D** and **2D meshes** of semiconductors.
  - In the near future, will work on the **scattering of electrons and phonons** in semiconductors.

Projects

- **Analog and Digital Projects:**
  - Designed a full-length circuit simulation (LtSpice) and PCB (KiCAD) layout of second-order **gm-C filter**.
  - **Schmitt trigger** designed (using Arduino, KiCAD) and simulated (LtSpice) to develop **signal conditioning** to remove noise from signals used in digital circuits.
- **Correlation Coefficients:**
  - Executed under the guidance of Prof. Shantanu Desai for the course **Data Science Analysis**.
  - Implemented to understand how each correlation coefficient is affected by altering the relationship between the two variables and by introducing outliers.
  - Analyzed in **python** using modules like NumPy, Pandas, astroML, scipy, and matplotlib.

Skills

- **Programming Languages:**
  - proficient: C, C++, MATLAB, python
  - basic: HTML, CSS, SQL
- **Simulation Tools:**
  - proficient: NgSpice, LtSpice
  - basic: KiCAD, ABACUS (nanohub)
- **Tools/Libraries/Others:**
  - *proficient:* Git, GitHub, SolidEdge, Data Structures and Algorithms, Numpy, MatPlotLib
  - *basic:* OpenCV, Database Management, Bootstrap, Pandas
- **Operating Systems:** Windows, Linux (Ubuntu)
- **Programming Languages:**
  - *proficient:* C, C++, MATLAB, Python, Verilog
  - *basic:* HTML, CSS, SQL
- **Simulation Tools:**
  - *proficient*: NgSpice, LtSpice
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Relevant Courses

Academic Courses:

- **Analog and Digital Electronics:** Digital Systems, Analog Electronics & Lab, Intro to VLSI Technology, Semiconductor Device Modelling, Digital IC Design
- **Analog and Digital Electronics:** Digital Systems, Analog Electronics, Analog Lab
- **Signal Processing:** Signal and Systems, Digital Signal Processing, Communication Systems
- **Signal Processing:** Signal and Systems, Digital Signal Processing
- **Core Fundamentals:** Circuit and Network analysis, Semiconductor Device Fundamentals, Control Systems, Engineering Electromagnetics, EM Waver Propagation, Electrical Circuits Lab, Electronic Devices and Circuits Lab

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- **Computer Science Courses:** Introduction to Programming in C, DBMS I, Data Science Analysis, Artificial Intelligence
- **Maths Courses**: Calculus, Complex Variables, Differential Equations, Vector Calculus, Probability and Random Variables, Matrix Theory

Certified Courses

- Neural Signal Processing and Analysis, and Image Processing and GUIs
- **Analog and Digital Electronics:** Digital Systems, Analog Electronics & Lab, Intro to VLSI Technology, Semiconductor Device Modeling, Digital IC Design
- **Core Fundamentals:** Circuit and Network analysis, Semiconductor Device Fundamentals, Control Systems, Engineering Electromagnetics, EM Wave Propagation, Electrical Circuits Lab, Electronic Devices and Circuits Lab

Positions of Responsibility

- **Elektronica Coordinator:** *Electronics club of IITH* June 2022 - Present
- **Elektronica Core:** *Electronics club of IITH* July 2021 - April 2022
- **Lambda Core:** *Development club of IITH* July 2021 - April 2022

Extracurricular

- Volunteer for **Elan & ηVision**, the Annual Techno-Cultural Fest of IITH.
- Participated in **Clean India Drive** organized by **NSS** (National Service Scheme).