

Ramsubramanian Chinnakannan | 107119099

B.TECH. IN ELECTRICAL AND ELECTRONICS ENGINEERING

NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI



EDUCATION

PROGRAM	INSTITUTION	% / CGPA	COMPLETION
BTech	National Institute of Technology Tiruchirappalli	7.32/10	2023
XII (CBSE)	Delhi Public School, Doha	85.6%	2019
X (CBSE)	Delhi Public School, Doha	10/10	2017

PROFESSIONAL EXPERIENCE

Jersey Industrial Company, Summer Internship trainee

June 2021 - July 2021

- Undergone an engineering training program at Jersey Industrial Company, Qatar.
- Initial tasks involved design, drawing and commissioning of custom control panels.
- Tools used are Autocad, PLC SCADA programming.

PROJECTS

Constructing a Hack Computer

November 2021 - December 2021

- Built and unit-test a chip-set, a CPU, and a typical computer architecture. Developed a modern software hierarchy consisting of an assembler, a virtual machine, a mini operating system, and a compiler for a simple object-based language.
- The general-purpose computer is simulated PC and can run games like Tetris, Snake, and other programs.

Design of Low Powered Counter using Digital Switching Circuits

September 2021

- Designed a 4-bit counter using single-phase Flip Flop with Self Controllable Voltage level method. The VLSI circuit with low power is designed to minimize the power consumed, chip size, and improve performance.
- The VLSI circuit with low power is designed to minimize the power consumed, chip size, and improve performance.
- Tools used are Cadence Virtuoso and 180nm Technology.

Stairways Pressurization Unit Control Panel Design

July 2021

- Designed a stairways pressurization unit control panel on Autocad. Got the necessary motor fan rating and emergency stairways volume from the client and designed a control panel such that the centralized air conditioning system turns off in case of a fire and the stairways pressure fans to turn on.

Distributed Energy Resource Monitoring and Optimization

May 2021

- Performed market analysis to identify pain points in energy management systems for efficient energy utilization efforts and gathered relevant datasets for specific use-cases.
- Created an Energy Signature tool to monitor power draw against outside air temperature using linear regression and developed a program that monitors and controls HVAC setpoints, DER scheduling, and indoor load shedding to maximize energy efficiency and lower energy tariffs.
- Created an insight report comparing several models and their energy conservation performance. Tools used are SQL, Python (Libraries: Pandas, Numpy, Matplotlib).

POSITIONS OF RESPONSIBILITY

Public Speaker and Trainer, Toastmasters

Feb 2020 – Present

- Member of the Toastmasters International club of the college, hosted and gave multiples speeches, presentations, and evaluations.
- Served as the Sergeant At Arms at the club between May 2020 and May 2021, was responsible for initiating, conducting and smoothly operating every weekly meeting.

Marketing Manager, Marketing Team, Festember

Mar 2020 - Present

- Took charge as Deputy Marketing Manager at Festember '20, the annual cultural festival of NIT Trichy.
- Collaborated with the team to work towards contacting various companies and acquiring sponsorships for the festival through cash, in-kind donations, and/or service sponsorships. Ensured proper completion of deliverables and spearheaded branding efforts to maintain relationships.

Coordinator, Content for Pragyan Team, Pragyan

Sept 2020 - Present

- Worked as a Coordinator of Content for Pragyan Team of Pragyan '21, an international techno-management festival of NIT Trichy.
- Managed and contributed towards digital and written content in the form of articles on important, diverse and exciting technical topics such as Space Tourism to maintain an innovative Pragyan blog and website. In-charge of all our social media handles.

RELEVANT COURSEWORK

- Embedded Systems*
- VLSI Design
- Internet of Things
- Computer Architecture and Organization
- Linear Integrated Circuits
- Digital Signal Processing
- Network and Linear Systems
- Analog and Digital Electronics
- Data Structures and Algorithms

SKILLS

- **Programming** : C, C++, Python, Verilog
- **Certifications** : Machine Learning - Stanford (Coursera), Build a Modern Computer: Nand to Teris Part 1 & 2 - Hebrew University (Coursera)
- **Other Tools / Frameworks** : LTSpice, MATLAB, AutoCad, TensorFlow, UiPath

EXTRA-CURRICULAR ACTIVITIES

- **Media and Publicity Coordinator** for Sportsfete '19- the inter department sports fest organized by NIT Trichy.
- Completed till **Grade 4** in **Acoustic Guitar**, with Merit, from Trinity College London.

* - Ongoing Courses