

APURVA RANDERIA

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EDUCATION

Sardar vallabhbhai National Institute of Technology (NIT, Surat), India.

Expected may 2020

Bachelor of Technology in Electrical Engineering

CGPA: 7.69/10

Coursework: Power electronics, Electrical drives, Micro-controller and embedded system, Control system, Electrical power system & machines

Elective coursework: Digital signal processing, Neural Network, Non linear and optimal control system.

SKILLS

Programming language: C & Python.

Software & Tools: Matlab & Simulink, Altium, Proteus, Ansys Icepack thermal simulation for circuit, Google firebase.

Skills: STM32, PLC, IoT, Machine learning & deep learning. **Communication protocol:** SPI, I2C, CAN

Interpersonal skills: Leadership, Self-driven, collaboration.

Productive skills: Graphic designing (Photoshop, Illustrator, InDesign), Video editing & VFX (Premier pro, Aftereffects), Web-page designing (Adobe Dreamweaver), Mobile UI/UX design (Adobe Xd, Android studio)

WORK EXPERIENCE

Reliance Industry Limited.(RIL, Hazira) | Neptha Cracking Plant | Guide - Shri Purvesh Doshi

May'19-June'19

Project: Substation design and power electronics protection system analysis and optimization.

- Learned and handled different fault situation occurred in plant i.e. LL fault, LG fault, DC fault.
- Performed Transformer and Induction motor's routine check and worked for system failure design.
- Analyzed entire substation design for protection relays and power electronics component stand for Neptha cracking plant
- Simulated in Etap software to know power consumption requirements.

Summer Project Research Laboratory | Guide - Dr. Anand D. Darji (HOD, ECED at NIT Surat)

May'18-July'18

Project: Brain Computing Interface using convoluted neural network for motor imagery signals

- Developed data acquisition circuit for data collection of brain computing interface project.
- Processed Collected data using Fourier transform and Digital Filter to remove noise and unwanted artifacts from data.
- Expanded as startup opportunity in IICDC 2018 & Received quarter-finalist title in the competition.
- Later project was presented in seminar under the guidance of Shri Janak J. Patel (Associate professor, EED).

PROJECTS

Battery Charging Technology | Major project | Guide: Shri Janak J. Patel (Associate professor, EED at NIT, Surat)

July'19-Present

- Key Words: Controlled rectifier, Fly-back converter, CCCV circuit using PID tuning, STM32 for pulse triggering.

Electric Go-Kart | Team Phoenix Racing | SAE student club at NIT, Surat

June'18-Feb'19

- Designed electric power train by calculating energy requirement from GPS based track analysis. Led entire electronic section and developed controller area network, distributed data acquisition models and dashboard design mounted on steering.
- Won 6th Electric Go-Kart design (6th E-GKDC) challenge among all the national institutes of India.

SOC measuring circuit | NIT, Surat | Guide: Dr. Varsha A Shah (Professor, EED at NIT Surat)

June '18- Nov'18

- Implemented Battery state of charge measuring circuit using 8051 micro-controller with coulomb counting method

Attendance manager using face recognition | NIT, Surat | Guide: Dr. A. K. Panchal (Professor, EED at NIT Surat)

Jan'18-March'18

- Aim: To compare and evaluate linear and polynomial regression results in Image processing
- Key words: Matlab, OpenCV, Visual Studio

Universal Remote | ACM Month of code Hackathon

July'17-Nov'17

- Prepared IR based system using Google sheet API to control each and every IR based conventional devices with one universal remote.

LEADERSHIP

Training and Placement coordinator | NIT, Surat

July'19-Present

- Accountable for management of company visits & Finding opportunities for fellow batch mates,
- Orchestrated towards the goal of expanding the T&P network while communicating with company's representatives.

Managing Director | Cutting edge visionaries (CEV) - Git-hub campus expert community

July'18-May'19

- Administered and consolidated a team of 50 students, sharing knowledge by organizing workshop and study jams on contemporary topics.
- CO-founded 'Yantrika' (Translation- Machines) subdivision to promote projects in the core field of electrical and mechanical.
- Conducted two workshop on Graphic Designing & VFX, and one workshop on Internet of things.

Innovation Head | Society of Automotive engineers | Student formula racing club

July'18-Feb'19

- Spearheaded electronic team for research on design of optimal radius condition visualizer for dashboard, that work based on previous lap performance with other few systems focused on vehicle safety and optimum driving for innovation competition as a part of 6th GKDC.
- Brought the best Innovation award to team in 6th GKDC along with 7 other awards for same including fastest skidpad, best endurance etc.

Chief Technical Advisor and Creative Head | Electrical engineering Society (EES)

July'18-May'19

- Provided platform to share knowledge with talk and discussion panel.
- Assisted more than 10+ projects, designed in club.
- Mentored many students in learning graphic designing and provide insight for being an entrepreneur.

ACHIEVEMENTS

- **Won 6th Electric Go-Kart design challenge** with 7 awards in different categories out of 10 categories.
- **Selected in IICDC2018** for project "safety enhancement module (BCI)" among 10000+ teams.
- **Runner-up in ACM month of code Hackathon** for project "Universal remote".
- **President award** in Bharat Scout and Guide (In 2016, received from the President of same time-frame, Mr. Pranav Mukherjee)
- **State award** in Bharat Scout and Guide (In 2014, received from the governor of Gujarat state of same time-frame, Ms. Kamala beniwala)