Alish Kanani

Pre-final Year (B.Tech)
Electrical Engineering
Indian Institute of Technology (IIT) Jodhpur

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Education

B.Tech - Electrical Engineering
IIT Jodhpur
Expected 2021
CGPA : 8.75/10 (Till 5th Semester)

Higher Secondary (HSC)
Ashadeep Science Bhavan
2017 | Surat, Gujrat
Percentage: 94.4%

Secondary (SSC)
M N J Patel High School
2015 | Surat, Gujrat
Percentage: 87.66%

Relevant Courses

Electrical Core
Digital Logic and Design
Microprocessors and Microcontrollers
Analog Electronics
Power Electronics
Circuit Theory
Communication Systems
Signals and Systems
Electrical Machine
Power System
Electromagnetic Theory
Physics of Semiconductor Device
Digital Signal Processing*
Control Systems*
(* Ongoing courses)

Fundamental Mathematics
Real Analysis and Linear Algebra
Complex Analysis and Differential Equations
Probability and Statistics

Skills

Language
C
Python (Basic)
MATLAB

HDL
Verilog

Software
Xilinx (ISE)
Synopsys DC (Basic)
Simulink
Octave
Arduino
Energia
Photoshop (Basic)

Internship

Accuracy Configurable Arithmetic Circuit | IIT Ropar
Research Intern | May 2019 - July 2019 | Guide: Dr Neeraj Goel
- Studied various existing approximate binary adders and multipliers
- Proposed **An Accuracy Configurable Adder** and helped in **An Accuracy-Configurable Rounding-Based Multiplier**
- Compared proposed algorithms with state of the art algorithms in Synopsys Design Compiler and in octave (1 million times) to calculate error matrix

Projects

DHVANIK - Wearable Tympanometric Diagnostic Tool for Middle Ear Ailments
Inter IIT Project | Sep 2019 - Dec 2019 | Guide: Dr Arpit Khandelwal
- Developed a low-cost, user-friendly, IoT enabled, head-phone sized tympanometer that detects middle ear problem
- Made business model for IICDC 2019 and Inter IIT 2019

Optimisation of 32 bit adders
B.Tech Project | Jan 2019 - Apr 2019 | Guide: Dr S. P. Tiwari
- Studied six different algorithms to add two binary numbers
- Compared delay, area and power of these algorithms in **Xilinx-ise**
- Project report and code: github.com/AlishKanani/32bitAdders/

AES Data Encryption on FPGA
Gymkhana Project | Sep 2018 - May 2019
- The aim of the project was to develop an FPGA based encryption engine to facilitate massive data encryption and decryption.
- Project link: github.com/AlishKanani/AES/

NETRA- Indoor Navigator for Visually Impaired
Texas Instruments IICDC Competition | Aug 2018 - May 2019
- Applied dead reckoning for indoor navigation without expensive infrastructure.
- Implemented on **Beaglebone black** using 9 axis **IMU**
- Audio and haptic feedback for navigation especially for the visually impaired

Positions of Responsibility

CAPTAIN Electronics Club | Aug 2018 - May 2019
- Coordinated and managed year round activities and finance of the Electronics Club at IIT Jodhpur

STUDENT GUIDE Counselling Service | Aug 2018 - May 2019
- Mentored freshmen students as a Student Guide for their smooth transitioning into college/hostel life.

Achievements

- Secured **Bronze** medal in Inter IIT Techmeet 2019
- Led the team of project NETRA and DHVANIK which reached the **semi-finals** of **DST** and **Texas Instruments** IICDC 2018 and 2019.
- Won First Place in the Analog Designs - an online contest by **Texas Instruments University Program.**
- Placed among the top **0.5% of 1.4 million** applicants in JEE Advanced 2017