

AdityaT

contact

PES Institute Of
Technology,
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Computer

Programming :
JAVA,C,C++
Web Design:
JavaScript ,CSS
,HTML

Academic Details

2010-2011	ICSE class X <i>Percentage 91%</i>	The Frank Anthony Public School
2012-2013	ISC class XII <i>Percentage 95%</i>	The Frank Anthony Public School
2013	B.E I Sem <i>GPA 10.0</i>	PES Institute Of Technology
2014	B.E II Sem <i>GPA 10.0</i>	PES Institute Of Technology
2014	B.E III Sem <i>GPA 9.62</i>	PES Institute Of Technology
2015	B.E IV Sem <i>GPA 9.16</i>	PES Institute Of Technology
2015	B.E V Sem <i>GPA 9.23</i>	PES Institute Of Technology

Ongoing Research

2015	Haptic Phased Array System <i>4th Sem</i> Project Status :My Project 'Interhaptics' is being used by Silicon Valley Startup Emergenow to build haptic product	Phased Array control , Ultrasonics , Electronics
2016	Subverting Firewalls and covert channels <i>6th Sem</i> Guide: Dr . Vamsi Krishna Tumuluru Paper Status : Writing	Computer network and security
2015	Construction of Passive Sound Transmitter <i>5th Sem</i> Guide: Dr. Sambasiva Rao Paper Status : Ongoing	Electromagnetics and Microwaves
2016	Patent Filed for LTE Control Plane Optimization (Funded by Nokia Networks) Signals and Systems, DSP, Algorithms, Analog/Digital Communication <i>7th Sem</i> Guide: Dr.Sudhish Kanichu Veedu	
2016	Recovering leaked Electromagnetic radiation from Laptops and CRT's Electro-magnetics and Microwaves <i>7th Sem</i> Guide: Dr. Sambasiva Rao Paper Status : Ongoing	
2016	Adaptive Control of Knee Joint Orthosis using UDE and ELM and Neural Networks <i>7th Sem</i> Guide: Dr. Chandar TS Paper Status : Writing	Control Systems

Projects/Internships

Completed

- | | | |
|------|---|-------------------|
| 2015 | Google Summer of Code-2015 Project Interhaptics
<i>4th Sem</i>
Summer Internship at google wherein my project was aimed at realizing the tactile additivity to virtual reality to encompass the largest sense organ the skin, while interacting with a digital environment . All the codes and electronic circuits was developed by me from scratch.This project basically tries to implement a system wherein things that appear in Virtual reality devices like Hololens,Oculus etc can be felt . It revolves around adding tactile perception to virtual reality by using Ultrasonic transducers. By manipulating their phase and amplitude it is possible to create a pressure point in space which can be felt by human hands and hence the space can be scanned pretty much like a CRT scanning the TV screen to simulate texture ,shape etc. More details on my website http://1sand0s-adi.github.io/1sand0s-adi.github/index-pro-inter.html | JAVA,C++,Assembly |
| 2015 | Android App For Multinational Company
<i>4th Sem</i>
I have developed an android app for a multinational company by the name of Quan Zhou Dong Shan Machine CO.,LTD (DSC for short) based in China, Taiwan , India and Canada. More details on my Github account https://github.com/1sand0s/DSC-India-App | JAVA |
| 2015 | Self Driving Car Using Machine Learning For WIPRO
<i>5th Sem</i>
Our project was awarded second place in all India Wipro challenge . A car that is capable of maneuvering a track in a controlled environment using Machine Learning . It captures the track ahead with the camera which is then converted into a 20x20 binary image , this is then analyzed by a pre trained system(also part of the project) which asserts each image a certain probability of left, right or straight, depending up the probability assigned for each direction the car judges the path to take. More details on my Github account https://github.com/1sand0s/Self_driving_car_using_ML_and_OPENCV | JAVA, C++,MATLAB |
| 2014 | Microsoft 24hr Hackathon
<i>3rd Sem</i>
I have also been awarded the top ten and Audience best choice award in a 24 hour hackathon conducted by Nokia student Labs and sponsored by Microsoft . My project was to implement Pranav Mistry's Sixth sense device using Raspberry-pi and OpenCV , at the end of it , I was able to click snapshots by just making a photo gesture as made by Mistry and relocate to any social media page such as Orkut, Instagram, Facebook or Twitter by just waving a finger in the up, down, left or right directions. More details on my Github account https://github.com/1sand0s/24-Hour-hackathon-project | JAVA, C++ |

Courses Completed

- Antenna Theory and Wave Propagation
- Microwaves and Radar

- Estimation and Detection
- Artificial Neural Networks
- Probability And Random Processes
- Communication Engineering
- Information Theory and Coding
- Network Analysis And Synthesis
- Electronic Devices And Circuits
- Linear Integrated Circuits
- Logic Design
- Electromagnetic Field Theory
- Linear Algebra And Engineering Mathematics
- Signals And Systems
- Microprocessors And Microcontrollers
- Microwave Theory
- Digital Signal Processing
- Control Engineering
- Computer Networks
- Digital System Design using Verilog

Interests, Extra Curricular and other Projects

Submitted Poetries to leading Poetry Journal "The Kenyon Review"

Placed 1st in 2012 and 2nd in 2010 in Bangalore South Division Chess Competition

Built a telephone from scratch using IC AT89C51 . Multithreading in a uniprocessor system was realized by multiplexing polling and interrupt modes to generate DTMF signals . The project was a part of my 5th semester for the subject Microprocessor and Microcontroller. More about the project on my github account <https://github.com/1sand0s/Sixth-Sense-interfaced-Telephone-based-on-8051>

Built an Image transmitter using morse code employing run length encoding for optimization .This project was a part of my 1st semester for the subject JEDI(Joy of Engineering Design and Innovation. The interface is totally controlled by sixth sense , also since the transmission occurs at open frequencies ,without encryption anyone can read it, therefore I also added a security feature which causes the received image to appear black until the user explicitly shines light on the screen , upon which the areas on the screen corresponding to maximum brightness have part of the image in those areas uncovered. The encryption was based on the concept of fractals . More details on my Github account <https://github.com/1sand0s/Image-transmission-using-morse-code-through-optimized-runlength-encoding>

Built an autonomous drone .An autonomous drone equipped with a camera ,capable of being controlled by five mode(speech(C#),gyro(android), sixth-sense (C-opencv),text(JAVA))

and seeking objects of the desired HSV values, implemented using Arduino and Raspberry-Pi through a client-server interface . More details on my github account <https://github.com/1sand0s/Su-drone-android-tablet-and-voice-controlled->

Electromagnetics and Antenna, Chess, Cycling, Recreating electronic devices from scratch, Quotes and Poetry