AdityaT

contact

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languages

English & Kannada
Fluency

Computer

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

Academic Details

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

Projects/Internships

Completed

2015 — Google Summer of Code-2015 Project Interhaptics — JAVA,C++,Assembly
4th Sem

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,Occulus 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

2014 — Android/Voice/Sixth Sense Controlled Land Drone — JAVA,C#,C
3rd Sem

I have single handedly built and implemented a surveillance 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/Surveillance-drone-android-tablet-and-voice-controlled-

2015 Sixthsense Interfaced Telephone Using 8051 Microcontroller Assembly

4th Sem

I have single handedly designed and built a telephone equipped with sixth sense(RPi) using an 8051 microcontroller from scratch. The circuit along with the assembly code has been developed by me. More details can be found on my Github account. https://github.com/1sand0s/Sixth-Sense-interfaced-Telephone-based-on-8051

2015 Android App For Multinational Company JAVA

4th Sem

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

2013 Image Transmission Using Morse Code (First of its kind) Using Optimized Run-length Encoding with two layers of secure encryption JAVA

1st Sem

I have single handedly built and executed transmission of an image using morse code and run length encoding ,from an rf transmitter located on one arduino to an rf receiver located on the other for my first sem project. 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 vis-vis hiding in plain sight which is the last place anyone would look . More details on my Github account. https://github.com/1sand0s/Image-transmission-using-morse-code-through-optimized-runlength-encoding

2015 Self Driving Car Using Machine Learning For WIPRO JAVA, C++,MATLAB

5th Sem

Our project was awarded first place in 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

2014 Microsoft 24hr Hackathon JAVA, C++

3rd Sem

I have also been awarded a trophy for reaching 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

Ongoing Research

2015 Designing of MicroComponents using HFSS and construction of passive sound transmitter Electromagnetics and Microwaves
5th Sem
Guide: Dr. Sambasiva Rao

2016 Researching and designing a product based on ECG (funded by govt of India)
Signals and Systems, DSP, FPGA,Microelectronics
6th Sem
Guide: Dr. Bhimsen Rao

2016 Nokia LTE direct UE to UE (supported and funded by Nokia) Signals and Systems, DSP, Algorithms,Analog/Digital Communication
6th Sem
Guide: Dr.Srinivas A

2016 Recovering leaked Electromagnetic radiation from Laptops and CRT's Electromagnetics and Microwaves
6th Sem
Guide: Dr. Sambasiva Rao

2016 Improving UDE based control Systems and real world application Control Systems
6th Sem
Guide: Dr. Chandr TS

Courses Completed

- 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
- Communication Engineering
- Probability And Random Processes
- Control Engineering

Ongoing Courses

- Information Theory And Coding
- Computer Networks
- Artificial Neural Networks
- Digital Systems Design using Verilog

interests

web design, web app creation, Android Apps, Chess, Cycling, Recreating electronic devices from scratch,Quotes and Poetry