Samarth Jain

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Education

- **R V College of Engineering**   Karnataka, India
  B.E in Telecommunication Engineering; CGPA: 8.2   *2014 – 2018*
  - Key Courses: Embedded Systems programming, MIMO and Wireless systems , HDL implementation on FPGA , Networking , Microprocessors And Microcontroller, Network Analysis and Control Theory, Signal Processing

Experience

- **Hyperloop India**
  Auto Pilot using MATLAB   *Jan. 2016 – 2017*
  - Design and Simulation of high speed levitating train auto pilot using Simulink and MATLAB
  - Implemented the auto pilot on actual levitating train at Hyperloop competition held by SpaceX and represented India as Hyperloop India student team.
  - Development of electronic eddy braking system using actuators like stepper motors

- **Cloud based education system**
  Networking   *Jan. 2017*
  - Implemention of smart beam focusing antenna system establishing Wlan using 802.11 n to communicate information. The system establishes a network with 175 clients and autofocus beamwidth according to user position in surrounding.
  - A complete server-client web interface working on above network with learning open source platforms like coursera , nptel and wikispace hosted on Google Cloud

- **Project Garuda**
  Electrical Subsystem   *Jan. 2015 – 2016*
  - Design of a 3 phase inverter for BLDC motor control and implementation of design using Atmega controller.The controller was manufactured and tested on self made electric vehicle.
  - The embed project required development of logic, hardware and software design from scratch
  - The embed code is written to maximize Torque and speed response using interrupt routines in Atmega controller.

Skills

Languages: C/C++, Assembly language programming, VERILOG, HTML, PHP

Manufacturing Skills: Multilayer PCB

Tools: Proteus for Embed design, NI Labview for algorithm development

Academic Projects

- **3 Phase Motor Controller For Commercial Electric Vehicle**
  Academic Project   *Jan. 2015 - Sep. 2016*
  - Developed a **Brushless DC Motor controller** for electric vehicles
  - Implemented a novel design for above using Power MOSFET, logic gates and ATMEGA32 to increase efficiency
  - Achieved simpler, efficient and lower cost design of a 3 Phase Trapezoidal controller
  - Design verified by rigorously testing on an self designed vehicle

Achievements

- Initiated and designed **STAND ALONE SOLAR POWER PLANT** for Project Garuda

- Member of Hyperloop India, a multicampus student team comprising of students from RV college,BITS Pilani **THE TEAM** is curently making Indias first Hyperloop.

- Member of Project Garuda, Student electric vehicle team.The team now makes urban concept vehical motorcontroller and has completed endurance at an international event, **SHELL ECO MARATHON** held at Singapore March 2017

- Secured 1st position in the state of Delhi and 27th Position nationally at the National Math Olympiad 2013