# KARTIK KULGOD

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### AREA OF INTERESTS

Interest lie in Robotics, Signal processing, Computer architecture and Organization as well as Electronic design.

#### **EDUCATION**

## Birla Institute of Technology & Science, Pilani - KK Birla Goa Campus

Bachelor of Engineering, Electrical and Electronics Engineering CGPA: 8.78/10

August,2015 - Present

## City International School, Pune, India

**High School** 

Overall performance: 96.80%

April 2015

## The Bishop's Co-Ed School, Pune, India

Primary School

Overall performance: 94.80%

March 2013

### RELEVANT COURSEWORK

Electrical and Electronics Engineering: Electrical Machines, Digital Design, Electronic Devices, Electromagnetic Theory-I, Electrical Sciences, Microprocessor & Interfacing<sup>†</sup>, Microelectronics circuits<sup>†</sup>, Control Systems<sup>†</sup>, Signals and Systems<sup>†</sup>.

Interdisciplinary: Computer Programming, Multivariable Calculus, Linear Algebra, Ordinary Differential Equations, General Physics, General Physics, Thermodynamics.

(† courses will be completed by the end of Spring 2017)

## **PROJECTS**

## **Hyperloop India**

Electrical and Electronics engineer at Hyperloop India

Working on navigation mechanism, auxiliary drive and related electronics, as well as procuring real time pod parameters as a part of Hyperloop India, which is participating in the SpaceX Hyperloop Pod Competition and Hyperloop One Global Challenge.

#### ABU Robocon

Developing a robot that can throw frisbees accurately at specified points. Worked on writing code for controlling actuators and transmitting data among different microcontrollers using I<sup>2</sup>C protocol.

## **Bug bots**

Swarm robotics using miniature bots moving on the basis of vibrations inspired from Harvard's Kilobot Project. Completed as a part of quark Summer Technical Project.

### Li-Fi

Built a simple circuit that could transmit a bit stream using a LED and Light Dependent Resistor, which included sinusoidal noise in the background.

## TECHNICAL SKILLS

**Experienced**: C, MATLAB, Arduino, Verilog, HTML5, CSS3.

Familiar: Gazebo, Cadence Virtuoso, Assembly language (Intel x86 and Atmel ATMega), Python.

#### SCHOLASTIC ACHIEVEMENTS

- KVPY Scholar
- All India Rank of 1091 among 1.5 million students in JEE (Main)
- School Topper for National Science Olympiad, International Mathematics Olympiad, National Cyber Olympiad for several years

### MENTORING EXPERIENCE

Mentored students on Introductory Electronics for Robotics as a part of Electronics and Robotics Club and Centre for Technical Education initiative which included a capstone project of building a **Micro Servo Robotic Arm**.

## EXTRA CURRICULAR

- Sports: Plays Squash regularly.
- Music: Plays Guitar often.
- Participated in Arduino Open, Embition, Boolean Beatdown, Bullion Beatdown during Quark 2017, Department week & Waves.
- Setting up personal website on: http://www.kartik-kulgod.github.io using HTML5 and CSS3