Shivang Agrawal

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EDUCATION

Indian Institute of Technology, Kharagpur
B.Tech, Chemical Engineering | 8.65/10

Dr. ALIM Sunbeam School
All India Senior School Certificate
Grad. May 2014 | Varanasi, India | 89.6%

SKILLS

Programming	C, C++, Python, Matlab, Java
Robotics	ATmega, ARM, ROS, Gazebo
Libraries Tools	Linux, Git, OpenCV, Bash

WORK EXPERIENCE

Technology Robotix Society | Sub-Head
February 2016 - Present | IIT Kharagpur

- Co-developed an autonomous event to be held at Kshitij 2017, Asia's largest techno-management fest.
- Conducted technical workshops across India to spread the culture of robotics.
- Delivered weekly lectures on manual and autonomous robotics for over 300 students round the year along with workshops and hackathons.

IEEE Robotics Workshop | Project Head
December, 2016 | IIT Kharagpur

- Organised and conducted a week-long workshop to teach the functioning and programming of the ATmega micro-controllers.
- Mentored a group of 35 first and second year undergraduates at IIT Kharagpur to build a motion following autonomous robot.

RESEARCH EXPERIENCE

Kharagpur RoboSoccer Students' Group
Embedded Software Team | February, 2016 - present

- Ported the Digital Motion Processor library of Invensense's MPU6050 written for MSP430 to STM32.
- Working on to deploy a Real Time OS like ChibiOS on the main controller of the bots and write application for the RTOS.

Aerial Robotics Kharagpur
Controls Team | March, 2016 - present

- Working on attaining altitude and node hold using closed loop PID controllers.

ACHIEVEMENTS

Smart-Steer Wheelchair Attachment
Gold | Inter Hall General Championship, 2016

- Developed the framework in ROS for the autonomous wheelchair designed for differently abled.

Autonomous Path Finding Robot
Best Fresher | Kshitij(IIT Kharagpur), 2016

- Developed a HEX decoding and path planning robot using dijkstra's algorithm.

RELEVANT COURSEWORK

Programming and Data Structures
Transform Calculus
Basic Electronics
Machine Learning(Coursera)
C++ for C Programmers(Coursera)
Computational Motion Planning(Coursera)