

Vivek Mudgal

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EDUCATION

IIT KHARAGPUR

BACHELOR OF TECHNOLOGY

Major in Electrical Engineering
Sophomore | Expected July 2019
CGPA: 8.69/10.00

GYAN GANGA INTERNATIONAL SCHOOL

ALL INDIA SENIOR SCHOOL CERTIFICATE

Grad. May 2014 | Jabalpur, India
Performance: 90.6%

CERTIFICATE OF MERIT

All India Secondary School
Examination
May 2012 | Jabalpur, India
CGPA: 10.0/10.0

COURSEWORK

Programming & Data Structures
Signals & Networks
Introduction to Electronics
Electrical Technology
Transform Calculus
Control of Mobile Robots (Coursera)
The Arduino Platform and C Programming
(Coursera)
Intro to Computer Science (Udacity)

SKILLS

ROBOTICS

Atmel AVR • Arduino •
Internet of Things •
ROS • Gazebo • Raspberry Pi

PROGRAMMING LANGUAGE AND ENVIRONMENTS

Python • C • C++ • MATLAB •
L^AT_EX • GIT • Bash • OpenCV

OTHERS

Eagle CAD • SolidWorks •
Atmel Studio • Proteus

LINKS

LinkedIn:// [vivekmudgal001](#)
Facebook:// [vivekmudgal10](#)
GitHub:// [vivekmudgal](#)

PROJECTS

AERIAL ROBOTICS KHARAGPUR | CONTROL SYSTEM AND EMBEDDED ELECTRONICS TEAM

February 2016 – Present | Kharagpur, India

- Fabricating a safety kill-Switch according to IARC guidelines.
- Designing circuits for a quadcopter to take part in IARC 2017.
- Research on Two-layered PID system and its automatic tuning.
- Made the Simulink model of the Quadrotor along with PID control on MATLAB

SMART-STEER WHEELCHAIR ATTACHMENT | ELECTRONICS TEAM

Inter Hall General Championship, 2016

- Worked on an attachment to make an autonomous self-driving Wheelchair.
- Work included interfacing sensors, writing obstacle avoidance algorithms on ROS and designing EagleCAD circuits.

OBSTACLE REMOVING ROBOT | PROJECT HEAD AND INSTRUCTOR

- Accomplished IEEE certified project of making a gesture controlled robot with autonomous obstacle removing mechanism on ATmega16.
- Mentored a group of 43 students.

SEMI-AUTONOMOUS MAZE SOLVING ROBOT | TEAM LEADER

- Built a wireless robot using SONARs, Bluetooth and Xbee on Arduino, capable of solving a maze in event Sensorous, NSSC'16, IIT Kharagpur.

EXPERIENCE

TECHNOLOGY ROBOTIX SOCIETY | SUB-HEAD

February 2016 - Present | Kharagpur, India

- Sub-heading a 3 tier team of 30 people responsible for organising Robotix '17. India's biggest college robotics fest with a footfall of 2000+ participants in 2016.
- Organizing workshops across India to spread the culture of robotics.

KRAIG | INSTRUCTOR

Kharagpur Robotics and Artificial Intelligence Group

February 2016 - Present | Kharagpur, India

- Conducted weekly lectures on Manual and Autonomous Robotics for over 200 first year round the year.
- Fabricated 10 IEEE certified projects for over 400 students annually.

AWARDS AND ACHIEVEMENTS

Sept, 2016 4th in Event Sensorous, National Science and Space Challenge
Feb, 2016 **Gold** in Hardware Modelling in Inter Hall General Championship
Jun, 2015 All India Rank **975** in JEE Advanced 2015.
July 2013 Head Boy, Gyan Ganga International School.

CO-CURRICULAR ACTIVITIES

- Avid-Quizzer, Won various intra and inter-school quiz competition.
- Basketball and Badminton, Skating, and Dancing at a hobby-level.