

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 using SONAR and servo motor 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-Qiuzzzer, Won various intra and inter-school quiz competition.
- Badminton, Skating, and Dancing at a hobby-level.