

Akhilesh Kumar

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14-H 45-D Azad Bhawan, JUIT Waknaghat, Himachal Pradesh-173234

EDUCATION

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY WAKNAGHAT

B.TECH ELECTRONICS AND
COMMUNICATION ENGINEERING
FRESHMEN

Expected June 2020
CGPA: 6.6/10.0

C.G. SCHOOL, BHABUA HIGH SCHOOL

Grad. April 2015 | Bhabua, India
Percentage: 72.4%

D.A.V. PUBLIC SCHOOL CERTIFICATE OF MERIT

Grad. April 2013 | Sasaram, India
CGPA: 10.0/10.0

LINKS

Github:// [akhilesh_k](#)
LinkedIn:// [akhilesh_k](#)

COURSEWORK

Programming & Data Structures
Discrete Mathematics
Basic Electronics Devices & Circuit
Advanced Calculus
Artificial Intelligence (EdX)
The Arduino Platform and C Prog. (Coursera)
Introduction to MATLAB (EdX)
Control of Mobile Robots (Coursera)
Machine Learning (EdX)

TECHNICAL EXPERTISE

HARDWARE

ATmega • Arduino • Raspberry Pi • TI
Development Boards

SOFTWARE

Pspice • LabView • SolidWorks • Proteus
• Visual Studio • Gazebo

LANGUAGES

C • Python • C++ • \LaTeX • MATLAB • BASH
• PHP • Embedded C

SYSTEMS

Git • OpenCV • Internet of Things

EXTRA-CURRICULARS

Elocution • Dramatics • Basket Ball

RESEARCH EXPERIENCE/ PROJECTS

UNDER WATER GLIDER FOR REAL TIME MAPPING WITH SENSORTAG IOT SYSTEM | ACM-ELECTRONICS TEAM |

December 2016 – January 2017

- Accomplished automated movement of the glider controlled with a ballast system. Developed obstacle-avoiding feature and algorithm for mapping of environment using MATLAB.
- Used Sensor Tag TI CC2650 to pair it with Raspberry Pi device and retrieve data in real time on web interface.
- Glider was balanced using accelerometer.

IOT BASED POLLUTION MONITORING AND WASTE MANAGEMENT FOR SMART CITIES | ACM ELECTRONICS

TEAM | March 2017 – Present

- Accomplished communication between Dustbins across the city and server on web platform.
- Interfaced Xbee modules with Raspberry Pi for dustbins localization.
- Conceptualized model of routes optimization for waste pickups using Google Maps API.

MOTION IMITATING AND PATH REPLICATING ROBOT ENABLED WITH MAPPING | PROJECT LEADER | March

2017-Present

- Bot based on Arduino and interfaced with Raspberry Pi
- Bot uses a Pi cam as input to handle control & object recognition using OpenCV.
- Real time video streaming with python client on Raspberry Pi.

INTELLIGENT ALARM SYSTEM WITH ANDROID INTERFACE | PROJECT MEMBER | October 2016-December 2016

- Pattern recognizing alarm based on Arduino which can set on from an android UI.

INCOMING MAIL NOTIFICATION SYSTEM | FEBRUARY 2016-PRESENT

- Built on Python Tkinter and serverside on Flask

POSITIONS OF RESPONSIBILITY

MEMBER OF ORGANIZING COMMITTEE | TECHNICAL TEAM | February 2016

- As part of the university's official Annual Techfest- Murious XI

ORGANIZING MEMBER | IPR CELL- JUIT

- Organized Workshop on Patent filing

CO-CURRICULAR ACCOLADES

Mar, 2017 Participated in National Level Dramatics Competition- Manthan
Feb, 2017 2nd in University's Dramatics Competition- Halla Bol
Oct, 2013 National Level Chess- CBSE