

Akhilesh Kumar

<http://www.akhileshk.in>

akhilesh_k@outlook.com | +91-9829754634

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

EDUCATION

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY WAKNAGHAT

B.TECH ELECTRONICS AND
COMMUNICATION ENGINEERING
SOPHOMORE
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
Advanced Calculus
Robotics Fundamentals (edX)
Introduction to MATLAB (edX)
Computational Motion Planning (Coursera)
Machine Learning (Coursera)
Aerial Robotics (coursera)

TECHNICAL EXPERTISE

HARDWARE

ATmega • Raspberry Pi • TiLaunchpads • C

SOFTWARE

Eagle • LabView • SolidWorks • Gazebo •
Atmel Studio

LANGUAGES

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

SYSTEMS

Git • OpenCV • IoT • ROS

EXTRA-CURRICULARS

Elocution • Dramatics • Basket Ball

RESEARCH EXPERIENCE/ PROJECTS

UNDER WATER GLIDER FOR REAL TIME MAPPING WITH SENSORTAG IOT SYSTEM | ACM-ELECTRONICS TEAM | Dec 2016

– Jan 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.

IOT BASED POLLUTION MONITORING AND WASTE MANAGEMENT FOR SMART CITIES | ACM ELECTRONICS TEAM | Mar 2017 – Present

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

MOTION IMITATING AND PATH REPLICATING ROBOT ENABLED WITH MAPPING | PROJECT LEADER | Mar 2017-Present

- Bot based on Arduino and interfaced with Raspberry Pi
- Uses Pi cam as input to handle control & object recognition using OpenCV & implemented python Client for Real time video streaming.

INTELLIGENT ALARM SYSTEM WITH ANDROID UI | ACM-ELECTRONICS TEAM | Nov 2016 - Dec 2016

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

MAIL NOTIFICATION SYSTEM | Feb 2017

- Built on Python Tkinter and serverside on Flask

PERSONAL ASSISTANT | Mar 2017

- A rudimentary level AI Personal Assistant
- Built on Python using Speech Recognition & AIML
- Developing GUI for the Virtual Assistant.

POSITIONS OF RESPONSIBILITY

TECHNICAL MEMBER | E-CELL -JUIT

- Member of University's E-CELL.

ORGANIZING MEMBER | IPR CELL- JUIT

- Organized Workshop on Patent filing

ORGANIZING COMMITTEE | TECHNICAL TEAM | February 2016

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

CO-CURRICULAR ACCOLADES

March 2017 Participated in National Level Street Play- Manthan
February 2017 2nd in University's Dramatics Competition- Halla Bol