

Akhilesh Kumar

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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

Advanced Calculus

Artificial Intelligence (EdX)

Building Arduino Robots (Coursera)

Introduction to MATLAB (EdX)

Control of Mobile Robots (Coursera)

Machine Learning (EdX)

Aerial Robotics (Coursera)

TECHNICAL EXPERTISE

HARDWARE

ATmega • Raspberry Pi • Tiva C

SOFTWARE

Eagle • LabView • SolidWorks • Proteus

Gazebo • Atmel Studio

LANGUAGES

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

Django • 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