# ABHISHEK KUMAR

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I am an enthusiastic engineering undergraduate in the field of Electronics and Communication. I am always fascinated by Robotics, algorithms, IoT, and Artificial Intelligence and I want to pursue my career in these fields using the disciplines of electronics and circuits. I like to challenge my capabilities and I will give my best to achieve personal as well as organizational goals.

# Skills (Programming/Designing):

- Arduino
- Raspberry pi
- Python
- MATLAB
- ORCAD Pspice Simulation
- Proteus ISIS Professional

- C/C++
- AVR
- Basic HTML
- SQL
- Circuit Designing
- MSP430 (Texas Instrument Development board)

# **Experience:**

17 FEB 2018 -PRESENT

#### Member and Mentor / Robotics Club, IET Lucknow

Being a second-year member of Robotics Club of my college, I used to take classes of freshers under the club where we teach them Robotics from basics to advance.

18 NOV 2017 -19 NOV 2017

# Presenter / CONVERGENCE-2K17, IET Lucknow

I have represented the official Robotics Club of my college during its launch, in front 92 batch Alumni.

# Robotics and IoT Workshop / E-Cell, IIT Kanpur

Attended a 2-day workshop on Robotics and IoT workshop organized by IIT Kanpur.

# **Assistant Coordinator / Pravah'18, AKTU**

State level Cultural fest of AKTU, hosted by IET Lucknow.

# **Assistant Coordinator / ABHIGYAN'18, AKTU**

State level Technical fest of AKTU, hosted by IET Lucknow.

#### **Education:**

PURSUING

# **Btech / Institute of Engineering and Technology, Lucknow**

CGPA during first year – 8.71 out of 10

2015

# HSC / Oxford Model Sr. Secondary School, Kanpur

Passed in 2015 with aggregate 94.2% with PCM

# **Projects/Competitions:**

- TECHKRITI'18, IIT KANPUR: (National level qualifiers) Participated in the robotics competition where we have made robot equipped with various techniques like Line following, Wall following, object counter, color detection, etc. using various sensors. We have implemented this project by using the control algorithm called PID (Proportional Integral and Derivative). We have used Arduino mega as microcontroller. The bot is to be performed live at IIT Kanpur.
- <u>CAT Classifier</u>: With the help of Deep Neural Networks, I have created a learning algorithm which classifies between a cat and a non-cat images, with an accuracy of 87%. I have used Python and its libraries like numpy and matplotlib for this purpose.
- <u>DC Regulated Power Box:</u> Using very basic electronics components, I have made a DC regulated power supply which takes 220V-50Hz AC supply and converts it into 5 Volts as well as 9 Volts DC supply. Circuit is created from scratch – from etching to components soldering.
- Wireless Tray: We (as a team), created a Bluetooth controlled robot on the occasion of a state level Techno-management fest, "ABHIGYAN-18", hosted by our college. The bot was controlled by a smartphone and app was created using MIT App Inventor. Purpose of the bot was to carry certificates or medals to chief-guests.

• <u>SEED – Ankuran:</u> Participated in Inter-college technical fest of our college "Ankuran-2K17", where I made a maze solver and blocks counter bot.

# **Accomplishments/Certifications:**

Seria 1 No.	Course	University	Offered by
1	Introduction to Python 3	-	SOLOLEARN
2	MATLAB and Octave	EPFL Lausanne, Switzerland	edX
3	Deep Learning and Neural Networks	Stanford University	Coursera
4	Digital Marketing	Google	Google
5	Intro to Python for Data Science	Datacamp	Datacamp
6	The Raspberry pi platform and Python	University of California, Irvin	Coursera
	Programming (currently enrolled)		

# **Other Co-Curricular Activities:**

- Made a game on C++ called "Stone, paper and scissor".
- Worked on Arduino platform and interfaced various sensors like Ultrasonic sensor (HCSR04), Temperature and Humidity sensor (DHT11), Bluetooth module (HC-05), WIFI module (ESP8266) etc.
- Implemented the technique of face recognition using MATLAB.
- Implemented MQTT Protocol using Mosquitto Client on Raspberry Pi 3.
- Created a local web-server for streaming live footage for security camera using Raspberry Pi 3.

# **Declaration:**

I hereby declare that all the information given above are correct and up to date.