NALIN LUTHRA

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Profile

A curious, polyglot and polymath person who like to learn and solve problem irrespective of field. Notable contribution in research field with mostly crazy ideas, that usually people think are not possible. Learning about new technologies, brain storming on ideas and reading books is everyday job & hobby.

Internship and Industry Experience

Centre of Artificial Intelligence and Robotics (DRDO) 2018
Our task was to develop automated path and its navigation without human pilot drone navigation system.

IIT-Bombay E-Yantra 2017-2018
Our task was to automate flying UAV (Quadcopter), to detect another robot and make it land on the same.

FabHotels (Intern) 2017
Video Editing and Advertisement designing

Tirupati Medicos (Freelancing) 2017
Designed a inventory management and POS system on java and SQL. So multiple shops can share same inventory and information about medicines.

Education

College - BVCOE (IPU)	IT Department	2016-Present
The Air Force School Class 12th	PCMB with Computer Science **94.5%**	2016
The Air Force School Class 10th	**CGPA - 9.0**	2014

Selected Publications

Vanita Jain, Gopal Chaudhary, **Nalin Luthra**, Akshit Rao, Shlok Walia *"Dynamic Handwritten Signature and Machine Learning Based Identification verification for keyless Cryptocurrency Transactions",* ICDSSA 2019 Special Issue : Journal of Information and Optimization Sciences (JIOS), Taylor and Francis

Vanita Jain, Gopal Chaudhary, **Nalin Luthra**, Akshit Rao, Harman Singh *"How to help Johnny travel in Brimming train ?"* ICDSSA 2019, Lecture Notes in Electrical Engineering (Springer book series)

Nalin Luthra, Vanita jain, Gopal Chaudhary *"Temperature invariant and high precision absolute rotary encoder using photocells on visible light spectrum" IEEE Sensors Journal 2018 (Under Review)*

Nalin Luthra, Vanita Jain, Akshit Rao, "Medical Assistance using drone for remote areas", IndiaCom, India 2019

Achievements and Awards

- **IIT-Bombay** (E-Yantra), Chaser Drone - **Top 10 in India** 2018
- Smart India Hackathon, Grand Final Finalist (Bhopal) 2018
- Technoxian - WRC (World Robotic Championship), **3rd Position** across 300 teams and **20 Countries**, Sponsored by Govt. of India, **Ministry of Science and Technology,** RoboRace 2017
- **Delhi Technical University,** LFR 2nd Position 2017
- **Delhi Times** Fresh Face college Winner. 2016

Technical Projects

- **PacBot** (**Indoor Navigation** and **Visualising physical world using ROS**) 2018
- **Indoor navigation** 2018
- **Self Driving Car** using computer vision and ultrasonic sensors 2017-Present
- **Home Automation** (Advance) using Raspberry pi and IOT sensors 2017-2018
- **Eye - Blinking Detection** for **Security** and **Surveillance** 2017-2018
- **Farming Drone** to prevent snakes and other animals enter in the farm land 2018
- Raspberry Pi - 3 based personal Cloud Storage 2018
- Own Blockchain (Most simple blockchain for transaction) 2018
- Home Automation (Basic) simple IOT Switch 2017
- **CNC - Machine** using waste 2017
- Radar using Ultrasonic Sensors 2017
- Air-Piano 2017
- Drone (Using KK2 flight Controller) 2017
- Aeroplane (RC Craft) 2017
- **Laptop Controlled Car** using **ZigBee** Communication and **self made software using Processing** (JAVA). Working radius 1.2 Km. 2017
- **Self Balancing Bot** 2017
- Line Following Robot (Using **PID** and **LDR**) 2017
- DPDT RoboCar 2016

Positions and Leadership Experience

Head of Technical Affairs (Indian Society of technical education BVP) 2018-Present

Taken a session on Robotics at DTU under ROSPi-Jam 2018

Head of Robotic Society Electronika (BVP-ISTE) 2017-2018

Leading team of 25 Students to Build Home Automation and Self Driving car 2017-2018

Publicity Head (ACM-BVP) 2017-2018

Teaching Robotics to Students (1st - 4th Year) 2017-2018

Teaching Programming to Students (1st - Year) 2017-2018

Event manager (BVP-ISTE) 2016-2017

Graphic Designer Executive (ACM-BVP) 2016-2017

Event manager Executive (TEDxBVP) 2016-2017

Head Co-curricular The Air Force School 2014-2016

Technical Skills

- **C/C++, Python, Java, Processing**, MATLAB, SQL, JavaScript, HTML, CSS
- Robotics Operating System (**ROS**), **RVIZ , Gazebo and Unreal Engine.**
- 3-D Robotic modeling (Unified Robot Description Format (**URDF**))
- **Ardunio, Raspberry pi** and 8085 Microprocessor
- **Computer Vision** (OpenCV & Depth Camera “Real Sense and Kinect), Image processing
- **Machine learning Using Python**
- **IOT using Raspberry pi and ESP8266**

Miscellaneous

Google Local guide : Level 6 Contributor

References

1. Prof. Dr. Vanita Jain, Vice-Principal BVOCE New Delhi
2. Deepika Thapar Singh, CEO-Principal Credence High School Dubai