KARAN RAJ PANT

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EDUCATION

Degree/ Examination	Year of Passing	School/Institute	Board/University
M. Tech. (Robotics & Automation)	2022	UNIVERSITY SCHOOL OF COMMUNICATION & TECHNOLOGY	GURU GOBIND SINGH INDRAPRASHTHA UNIVERSITY
B. Tech. (Mechanical & Automation)	2018	HMR INSTITUTEOF TECHNOLOGYAND MANAGEMENT	GURU GOBIND SINGH INDRAPRASHTHA UNIVERSITY
Class XII	2013	D.D.U. S.B.V. ROUSE AVENUE	CBSE
Class X	2011	RAJKIYA PRATIBHA VIKAS VIDYALAYA	CBSE

PROJECT WORK

Post-Graduation Project

- **Traffic Signs Detection Model**
  Trained a YOLO V3 object detection neural network model to detect Road Signs.
- **Lane & Obstacle Detection Model**
  Lane and obstacle detected using canny edge detection technique and deep learning technology respectively.
- **Autonomous Vehicle Prototype**
  Developed an autonomous guided vehicle prototype which is able to avoid obstacle.

Under Graduation Projects:

- **Hydraulic Flour Mill**
  A working prototype model of hydro flour mill, hydraulic kinetic energy converted into rotational mechanical energy via turbine and transmitted to mill by bevel gear system.
- **Robotic Arm**
  Develop and visualize mathematical model and control of manipulating industrial robot with 3 dof with the help of Math-CAD software.
- **Electromagnetic Vehicle**
  An eco-friendly vehicle consists of electromagnetic piston engine instead of conventional engine based on principle of electromagnetism. The electromagnetic reciprocating engine uses magnetic energy to turn a crankshaft.

CERTIFICATE AND TRAINING

- "Design using **CATIA V5 R21**" from **Technoledge Infotech Pvt. Ltd.**
- "Design & Analysis using **ANSYS14**" from **Technoledge Infotech Pvt. Ltd.**
- "Advance Trends in Automobile Technologies" from **Tata Motors Pvt. Ltd.**
- "Coach Care Center", **Northern Railway**, New Delhi from **Indian Railway**.
- "State of art power technologies" from **NTPI.**
- "Internship in **Industrial Robotics**" at Mukkudal Robotics.

SKILLS SET

- Software : MATLAB, CATIA, Auto-CAD, ANSYS
- Languages : Python

AREAS OF INTERESTS

- Computer Vision
- Autonomous Vehicles
- Robotics
- Artificial Intelligence / Machine Learning

EXTRA CO-CURRICULAR ACTIVITIES

- Taught Physics, Science and Mathematics up to "Higher Sec." level in "MMJ ACADEMY OF STUDIES" for 6 years.
- Qualified 'A' and 'B' certificate in NCC and got best cadet prize in junior division.
- Volunteer in college fests and organized coaching fest.
- Participated in various sports competitions.
- Organizing team member of AICTE Training & learning academy, Faculty development program on "Recent Trends & Challenges in Image Processing & Computer Vision" 2021.