RANJEET KUMAR

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Summary

I have 3+ years of experience in Computer vision, Robotics, Data Processing, Automation Domain at H/W and S/F levels. And Seeking an enriching and challenging opportunity, this will aid in utilize my technical research & administration skills and gaining experience in a challenging environment.

Skills

Core Skills: Image Processing and Computer vision, Robotics Automation& Control Design, Product Design & Development, Algorithm, Data Science& Deep Learning

Hardware Skill: Arduino , Rasperberry-Pi2 , Arm Cortex M3,M4; MSP430, ZED Stereo-vision camera, RP-LIDAR

Software Skills: PYTHON , OpenCV Library , C, C++, Embedded C , DSUC , MATLAB, Ms- Visual Studio, Eclipse, Multisim, Xilinx, HTML

ML and DL: TensorFlow, Keras, NumPy, Pandas, Face net, Retina net, SQLite, JSON, Django, PyQt5

Real-Time Control System & library: ROS, PCL Library, OpenCV, Modules and Sensors technologies & interfacing.

Platform: Windows, Ubuntu14.04LTS, Ubuntu16.04LTS, ROS, Raspbian.

Experience

January 2019 to Current : TATA ADVANCED SYSTEM LIMITED - Bangalore, India

Sr Executive(Research)- Image Control & Signal Processing

- Working on Object Detection and Tracking at High Altitude in different terrain.
- Worked for SWAM Drone Navigation to identify the location of object.

July 2016 to January 2019 : Centillion Network Ltd , Hyderabad, India

Robotics Research Analyst

- Point cloud data collected from LASER & ZED stereo-vision camera to At different terrain to identification and orientation of goal.
- Construction of 3-D object from point cloud data using PCL Lib.
- Point cloud data collected from LASER & ZED stereo-vision camera to At different terrain to identification and orientation of goal.
- Development and control of a Snake robot using ROS, Python - Software development for police drone car control using C++, ROS
- Research on pole-detection in urban as well as Rural area using point Cloud Data from LIDAR, LASER and ZED stereo camera.
- Research on point cloud data processing
- Developed Facial Recognition, Detection, identification and Tracking System for Desktop application as well as Web-application based system.

Education and Training

2016, **M-Tech**: Electronics System, GPA: 7.88 /10

Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram Chennai, TN, INDIA

2011, **B-Tech**: Electronics & Telecom, Percentage: 70.40%

Biju Patnaik University of Technology - Rourkela, INDIA

ACTIVITIES AND HONORS:

- Project award for best product development project in IIIT, Kancheepuram.
- Qualified for MHRD Gov. of India - Institute fellowship for MTech.
- Achieved 98.93 percentile in GATE 2011,2013,2014 and 2017 and eligible for UGC aid.
- Awarded in a Kshitiz-2009 conducted by All India Tech Fest, IIT KGP, India
- Participated in Many Quiz competition conducted by Govt Technical Bodies.

PROJECT ACCOMPLISHMENTS

M-Tech -Under the guidance of Prof.(Dr.) S R Pandian,

- The proposed work aims at designing and developing a sensor integrated robotic hand. The broad aim is to design, model simulate and develop an advanced robotic hand, sensors for pickup contacts pressure, vision, force, torque, to hardness, texture, position, surface profile shape, object tracking, sensor fusion, motion planning, and control using number of suitable sensing elements and computer machine vision system in an robotic hand. It is also felt that the developed hand should be intelligent enough to gather information, assimilate and act accordingly so that the product becomes more sensible and useful.
- **M-Tech** major project: “Stereo-Vision-Based Control of three-link robot Manipulator” .
- **M-Tech** minor project: “Development and Control of three degree-of-freedom Force Sensor for Underwater Robot”.
- **M-Tech** minor project “Mini autonomous Vehicles

PUBLICATIONS

Journal Publications:

- **Ranjeet Kumar**, and S R Pandian; "A Stereo Vision-based Control of 3-Link Robot manipulator System", Journal of Intelligent & Robotic Systems, 2017, (Under Review).

Presented Conferences:

- **Ranjeet Kumar**, Kiran Pattansetthy and S R Pandian; "Web-Based Physics Experiment in Dynamics Using Image Processing",3rd IEEE International Conference, IEEE, Delhi , India, 2016.
- **Ranjeet Kumar**, Yogesh Solunke; “Design and Development of 3-DOF Force Sensor”, IEEE Internation Conference ICRTEECT, Warangal, India, 2017.
- **Ranjeet Kumar** and Jino Ramson", Sensor Networks based Water Quality Monitoring Systems for Intensive Fish Culture -A Review", 5h IEEE International Conference on Devices, Circuits and Systems - ICDCS 2018, Karuna University, Kerala, 2018..
- **Ranjeet Kumar** and Jino Ramson", Radio Frequency Identification and Sensor Networks based Bin Level Monitoring Systems-A Review", 5h IEEE International Conference on Devices, Circuits and Systems - ICDCS 2018, Karunaya University, Kerla, 2018.

PERSONAL INFORMATION

Age: 30th Years, Sex: Male, Language: Hindi, English, Nationality: Indian

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I hereby declare that all the information furnished if from best of my knowledge and belief.

Place: Bangalore, INDIA

Date: 03-05-2019 Ranjeet Kumar