

Yash Jangir

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EDUCATION

BITS, PILANI
B.E ELECTRONICS AND
INSTRUMENTATION ENGINEERING
Present | Goa, India
College of Engineering
GPA: 8.08/10.00

SHARDHA VIDHYA MANDIR
HIGHER SECONDARY CERTIFICATE
CLASS XII CBSE
Grad. May 2018 | Jaipur, India
Passing Percentage: 88.94

SHARDHA VIDHYA MANDIR
SENIOR SECONDARY CERTIFICATE
CLASS X CBSE
Grad. May 2015 | Jaipur, India
GPA : 9.2/10.0

COURSEWORK

UNDERGRADUATE

Neural Networks and Fuzzy Logic
Modern Control Systems
Control Systems
Discrete Mathematics
Computer Programming
Microprocessor and Interfacing

MOOCS

Introduction to MATLAB
Control of Mobile Robots
Robotics: Aerial Robotics

SKILLS

PROGRAMMING

• Python • Shell • Matlab
• C • C++

Familiar:

• ROS • MATLAB Simulink
• Arduino IDE • Proteus

EXTRA CURRICULAR

• Electronics and Robotics Club:
Inventory Head, Core Member
• Developer's Society: Core Member
• AUGSD - Student Volunteer
• Peer Mentorship Program - Student
Mentor(Best Mentor Award)

EXPERIENCE

CSIR-CENTRAL ELECTRONICS ENGINEERING RESEARCH INSTITUTE(CEERI)
SUMMER RESEARCH INTERN | JUNE 2021 - AUGUST 2021 | REMOTE, PILANI, INDIA
Project Title: Vision Assisted Pure Pursuit based Landing For MAVs
Scientist-in-charge: Mr. Kaushal Kishore, Scientist CEERI Pilani, India

- Implemented a new approach for Pure Pursuit algorithm for UAVs .
- Used ROS, Python, C++, Gazebo, Rviz, and PX4 Autopilot.

BITS, PILANI - K.K BIRLA GOA CAMPUS | RESEARCH INTERN
August 2021 – Present | Remote, Goa, India
Project Title: IoT based Muscle Weakness Sensing
Supervisor: Prof. Vinayak Naik, HOD, Dept. of CS IS, BITS-Pilani, Goa Campus.

- Working on Muscle weakness monitoring using EMG sensors and IMU Further using data fusion to predict a weakness in any general muscle of the body.
- Used Circuit design, Gaussian filters for signal noise, Embedded system design, Arduino, ESP32, Amazon AWS for IoT.

MEL SYSTEMS AND SERVICES LTD. | PRODUCT DEVELOPMENT INTERN
May 2021 - July 2021 | Remote, Chennai, India
Project Title: Controlled Area Network Protocol

- Developed smart IoT based network of CAN for product applications.
- Developed data exchange software for CAN network.
- Used Arduino IDE, Python, C++, Circuit Design, PyQt

PROJECTS

DEEP-LEARNING BASED AUTONOMOUS LANDING FOR MAVS
May 2021 – June 2021
Faculty Coordinator: Prof. Neena Goveas, Associate Dean, AUGSD, BITS Goa

- Developed of Kalman filter-based PID controller for Autonomous MAV landing.
- Used C++, Python, PX4-Autopilot, ROS, Gazebo Simulator.

MULTI-CONTROLLER STACK FOR 3-DOF ROBOTIC ARM
Mar 2021 – Present
Faculty Coordinator: Dr. Ponnalagu R N, Assistant Professor, BITS Hyderabad

- Working on designing multiple controllers for industrial 3-DOF Robotic Arms.
- Implementing Classical and Optimal controllers.
- Used Matlab Simulink, ROS Toolbox for Matlab, Gazebo, ROS(Robot Operating System), Manipulator-(Kuka LBR Iiwa 7)

PROJECT KRATOS-MARS ROVER TEAM
June 2020 – Present | Core Member, Drive Team Kratos

- Working on development of prototype of a mars rover for the University Rover Challenge (URC). implemented PID control using ROS, C++, Python, Arduino, etc. Project funded by Sandbox Fabrication Laboratory, BITS Goa

PUBLICATIONS

- [1] P. Mathur, Y. Jangir, and N. Goveas. A generalized kalman filter augmented deep-learning based approach for autonomous landing in mavs. *IRIA'21*, Accepted.
- [2] P. Saraf, Y. Jangir, and R. N. Ponnalagu. A comparative study of optimal and classical controllers for 3 dof robotic manipulators. *Elsevier*, Manuscript In Preparation.