Haasith Pasala

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Experience

ROBOTICS RESEARCH CENTER | Graduate Researcher

September 2021 – Current | IIIT Hyderabad, India

- Working under the guidance of Dr Nagamanikandan Govindan on projects related to using mechanism design of grippers using trajectory optimisation and learning techniques.

MECHATRONICS SYSTEM DESIGN COURSE | Teaching Assistant

January 2023 – May 2023 | IIIT Hyderabad, India

- Worked as TA for the course "Mechatronics System Design" during the Spring Semester,2023

LARSEN & TOUBRO TECHNOLOGY SERVICES | Consultant Engineer

March 2019 – June 2020 | Mysore, India

- Worked as Automation Test Engineer
- Worked on automation of an application on Android and iOS Devices using WebdriverIO Cucumber framework and Appium with Javascript

Education

INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY HYDERABAD | MS by Research in ECE

August 2021 - Present | Hyderabad, India

Robotics Research Center

Cum. GPA: 8.5 / 10.0

ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY AND SCIENCES | B.E. in ECE

August 2014 - May 2018 | Visakhapatnam, India

Electronics and Communication Engineering

Cum. GPA: 6.93 / 10.0

Projects

- Rigid Body Dynamics-Based Trajectory Optimization for Precision Object Throwing | For Research Work
- Enhancing a Novel Gripper Design and Prototyping for Object Grasping, Picking and Throwing | For Research Work
- Integration of the Novel Gripper with XArm7 and Mobile Robot via ROS | For Research Work
- PointNet: Deep Learning on Point Sets for 3D Classification and Segmentation | For Research Work
- 6-DoF Pose Estimation using Aruco Markers in ROS | For Research Work
- Application of PID control on a Bionic-Hand | Hardware/Mujoco Simulation
- Pose Graph optimization and trajectory evaluation | For a course project
- Gradient-Based Learning Applied to Document Recognition | Paper Implementation for a course

Publications

A NOVEL HYBRID GRIPPER CAPABLE OF GRASPING AND THROWING MANIPULATION | Gripper design, Throwing, Non-prehensile manipulation

Accepted in IEEE/ASME TRANSACTION ON MECHATRONICS in 2023

Skills

PROGRAMMING

Proficient:

C • Python • C++

Experienced:

Embedded C • LaTeX• JavaScript •CSS • HTML • Assembly of 8086,8051

LIBRARIES/FRAMEWORKS

PyTorch • TrajOpt Framework • Webdriver IO • Appium • Selenium • Android

TOOLS/PLATFORMS

MATLAB • ROS • OpenCV • Open3D • Pybullet• Gazebo • Mujoco • ArduPilot • Android Studio • Photoshop • Fusion 360• Git

Coursework

GRADUATE

•Mobile Robotics
•Statistical Methods in AI
•Robotics Dynamics and Control
•Advances in Robotics and Control
•Topics in Applied Optimisation

UNDERGRADUATE

•Digital ELectronics
•Analog ELectronics
•Advanced Network Theory
•Control Systems
•Electronic Devices & Circuits
•Signals and Systems

Final Project:

MEMS-based Wheelchair

Achievements/Awards

IEEE SPECTRUM | 2023

• The work related to this Paper "A NOVEL HYBRID GRIPPER CAPABLE OF GRASPING AND THROWING MANIPULATION", Featured on the IEEE Spectrum in April 2023.