

Yeshasvi Tirupachuri

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EXPERIENCE

Dynamic Interaction Control, iCub Facility, Italian Institute of Technology

2020 – Present

Postdoctoral Researcher

Genova, Italy

- Technical lead on [AnDy](#) and [iFeel](#) technologies integration
- Developed iFeel multi-haptic actuation pipeline for real-time feedback
- Improved iFeel wireless shoes data acquisition rate from 20 Hz to 100 Hz
- Lead software developer of iFeel Driver software development kit (SDK)
- [ANA Avatar Xprize](#), iCub team human perception pipeline technical lead for teleoperation
- Defined the software architecture and development of iFeel wearable technology
- Influenced the project roadmap for iFeel wearable technology by identifying potential market segments
- Coordinated software integration for iFeelYou Bracelet in COVID19 physical distancing team
- Designed and prepared software infrastructure to communicate with an adaptive Exoskeleton using BLE

Dynamic Interaction Control, iCub Facility, Italian Institute of Technology

2016 - 2020

Early Stage Researcher & Doctoral Fellow

Genova, Italy

- Designed and produced humanoid whole-body control algorithms for Human-Robot Collaboration
- Improved and maintained modular and extensible Human Dynamics Estimation v2.0 library
- Conceptualized and implemented whole-body human motion retargeting to humanoid robots
- Led software development and maintenance of codebase for Human-Robot Collaboration research axis
- Initiated and facilitated new experimental setup for multi-agent robot experiments
- Streamlined technology transfer of wearable force/torque shoes to industrial partners
- Collaborated with European research project partners to develop practical project roadmap
- Authored over 100+ commits to open source robotics codebase of Github robotology organization
- Facilitated development of agile research methodology for effective and tractable project management
- Trained and mentored new members through research and codebase orientation

The Engine Room, University of Genoa

2014 – 2015

Graduate Student Researcher & Teaching Assistant

Genova, Italy

- Implemented human gesture recognition and classification using wearable IMU technology
- Produced an AND-OR graph algorithm for task planning during Human-Robot Collaboration
- Developed a histogram based object tracking and visual servoing algorithm using OpenCV
- Created a pan-tilt setup for teaching Software Architecture using Robot Operating System (ROS)

EDUCATION

University of Genova & Italian Institute of Technology

2020

PhD, Human-Robot Collaboration

Genova, Italy

- Awards: Marie Curie Early Stage Researcher (EU), Best Student Paper (IntelliSys2019), Best Blooper (ICRA2019)
- Thesis: Enabling Human-Robot Collaboration via Holistic Human Perception and Partner-Aware Control

University of Genova & Ecole Centrale de Nantes

2013 - 2015

MSc Double Degree, Robotics Engineering & Advanced Robotics

Genova, Italy & Nantes, France

- Thesis: Bio-inspired optical flow estimation & vergence control with neuromorphic stereo vision on iCub

OTHER

- **Technical Skills:** ROS, YARP, C++, Matlab, Simulink, Python, Gazebo, RViz, Git/Github, Linux, PlatformIO
- **Personal Skills:** Resourceful, Collaborative, Dependable
- **Languages:** English (fluent), Italian (intermediate), French (beginner), Spanish (beginner), Telugu (native)