MOHAMED SADIQ IKBAL

Robotics Engineer and Researcher

SKILLS

C++

Python

C#

Unity3D

Unreal Engine

GIT

CONTACT

📍 Via G.Grasso 7A/7, Genova, 16133 Italy

📱 +39 327 4082146

✉ sadiq.ikbal@gmail.com

🌐 msihub.github.io

○ MSIhub

in Mohamed sadiq Ikbal

PROFILE

Robotics engineer, strong spatial computation skills, and a passion for software development. Experience developing end-to-end solutions for conducting experiments on a virtual reality-based robotic motion platform.

Researcher, worked on greenfield project from idea generation to client demonstration. Experience in supervising and guiding three master thesis. Experience teaching robotics simulation using CoppeliaSim for robotic masters students.

XR Prototyping, developed fast paced prototypes in Unity VR development. Completed a minimum viable project for a multiplayer networked VR physical interaction experience as a part of XR Bootcamp learning.

Enjoy developing algorithms and testing it on simulation and hardware. I am calm, positive and love contributing towards the success of the team's tasks.

WORK EXPERIENCE

Research Assistant   Dec 2020 - Now
University of Genoa, Italy

This research position is part of the Regione Liguria research grant (RLOF18ASSRIC/85/1) for 'Virtual reality to increase awareness of driving risk'.
Activities include:

· Motion cueing algorithm development in C++ and deployment in a Linux based controller for the motion platform (Parallel robot)

· Research on effective parametric reduction for motion cueing algorithms for a car driving motion simulator.

· Testing various use-cases, formulating questionnaires for user validation of the algorithm.

· Handling subjective and objective feedback and reiterating the algorithm.

· Customizing a car driving simulation in Unreal engine to perform experiments with the motion simulator platform.

· Developing demonstration scenarios for the client with various visual components in Unity3D

· Individual research and project management

· Supervision and guidance of Master thesis

· Teaching robotics simulation for Masters in Robotics Engineering

· Reporting project status to the government official

Assistant System Engineer   Sep2014-Jun2015
Tata Consultancy Services, India

Played an active role in the support and maintenance of the Java-based applications and SQL databases for the supply chain management team of The Home Depot, USA.

EDUCATION

Ph.D. Mechanics, Measurement and Robotics   Nov2017-Oct2020
PMAR Robotics Group, University of Genoa, Italy

Motion Generation and Planning System for a Virtual Reality Motion Simulator: Development, Integration, and Analysis.
Thesis available at: `http://hdl.handle.net/11567/1046138`

European Master on Advanced Robotics (Erasmus+ double degree masters)   Sep2015-July2017
Ecole Centrale de Nantes, France & University of Genoa, Italy

Awarded EMARO+ Consortium Scholarship. Received Master in Control and Robotics - Advanced Robotics from Ecole Centrale de Nantes and Master in Robotics Engineering (Laurea Magistrale in Robotica) from University of Genoa. Master thesis on motion cueing algorithm and minor project on cable robot workspace determination.

B.Tech Mechanical Engineering   Aug2010-May2014
Sri Manakula Vinayagar College of Engineering, India

Graduated as Valedictorian. Participated in many robotics symposiums and lead/guided a team for two years to participate in robotics related events. Our thesis project was recognised by Confederation of Indian Industries (CII) as the Best Innovation Award.

PUBLICATIONS

- **M.S. Ikbal**, V. Ramadoss and M. Zoppi, "Dynamic Pose Tracking Performance Evaluation of HTC Vive Virtual Reality System," in IEEE Access, vol. 9, pp. 3798-3815, 2021.

- A. Sharma, **M. S. Ikbal** and M. Zoppi, "Acausal Approach to Motion Cueing," in IEEE Robotics and Automation Letters, vol. 4, no. 2, pp. 1013-1020, April 2019.

- V. Ramadoss, K. Sagar, **M.S. Ikbal**, D. Zlatanov and M. Zoppi, "Modeling and Stiffness Evaluation Of Tendon-Driven Robot For Collaborative Human-Robot Interaction," 2021 IEEE International Conference on Intelligence and Safety for Robotics (ISR), 2021, pp. 233-238.

HOBBIES AND INTERESTS

- Co founder and advisory board member of Smile Foundations (NGO, Puducherry, India)

- Badminton, hiking and traveling for food

- Up-skill and explore various software tools and robotics publications