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Omair Khalid

omair-khalid

EDUCATION

[HERIOT-WATT UNIVERSITY, UNIVERSITAT DE GIRONA, UNIVERSITÉ DE BOURGOGNE]

MS in Computer Vision and Robotics
2016 - 2018
FR, ESP, UK

Relevant Coursework

- Visual Perception
- Scene Segmentation and Interpretation
- Advanced Image Analysis
- Probabilistic Robotics
- Autonomous Robots
- Software Engineering

NATIONAL UNIVERSITY OF SCIENCES AND TECHNOLOGY

BS in Electrical Eng
2010-2014
PAK

SKILLS

Programming

- Python
- C++
- Matlab
- C#

Software Skills

- Robot Operating System (ROS)
- Ubuntu
- GIT
- Keras

Languages

- English (Fluent)
- Urdu (Native)
- Italian (Beginner)

OTHER INTERESTS

- Swimming
- Travel
- Drawing

EXPERIENCE

ASSISTIVE ROBOTICS LAB | Research Engineer

May 2019 – Present | Pisa, Italy

- R&D and on-field testing of autonomous navigation of in-house mobile robot platforms, equipped with multiple sensors, as part of multiple Italian and European projects.
- Support HRI/Social Navigation research in the lab.

VICOROB | Research Intern

June 2017 – Aug 2017 | Girona, Spain

- Implemented a Spline-based model to construct a synthetic 2D mammogram from Digital Breast Tomosynthesis (DBT) 3D data, aimed at highlighting the suspected malignant regions.

LEARNOBOTS | Research and Development Officer

May 2015 – Aug 2016 | Islamabad, Pakistan

- Responsible for research and development of educational robotics kits.
- Designed and conducted STEM based workshops involving Arduino, 3D Printing, Programming etc.

RELEVANT RESEARCH & PROJECTS

- Applicability of **Complex-Valued CNNs** to Complex-Valued Data Classification - **Master Thesis** [Keras with Tensorflow, Python]
- Design of Mission Control Strategy for **Autonomous Exploration** [ROS, Python, C++]
- Breast Density **Classification** based on **Digital Breast Tomosynthesis (DBT) Scans** [Matlab]
- Object **Classification** using **Bag of Words** approach [Matlab]
- Facial Recognition using **Principal Component Analysis** [Matlab]
- **3D Scanning** System using **Kinectv1** [C++, PCL]
- Flight Stabilization and Way-Point Navigation of **Quadrotor UAV** - **BS Final Year Project** [Arduino, C++]
- **Modeling Human-like Robot Personalities as a Key to foster Socially Aware Navigation** Sorrentino, A., **Khalid, O.**, Coviello, L., Cavallo, F., Fiorini, L. Conference: 2021 30th IEEE International Conference on Robot & Human Interactive Communication (RO-MAN) [ROS, Python, C++]

AWARDS

- Received International Student Mobility Grant from Regional Council of Bourgogne, France 2016-17
- Received Erasmus+ Mobility Grant for exchange semester in Spain 2016-17
- Received the **Best Performer Award** for services rendered to the organization, at LearnOBots
- Achieved **3rd position** in 13th National Computer Project Exhibition (COMPPEC) held at College of EME, NUST for the **BS Final Year Project**
- First **Runners up** in the Best Project Competition in Department of Electrical Engineering, College of EME, NUST for the **BS Final Year Project**