

# 1st Open day & Workshop @ISR-UC

Welcome Session



**8**  
PRESENTATIONS

**24**  
POSTERS

**93**  
REGISTERED

STAY TUNED WITH US



**1<sup>ST</sup> OPEN DAY & WORKSHOP**  
RESEARCH ASSOCIATES AND PHD STUDENTS  
PRESENTATIONS/POSTERS

**14**  
JULY 2022  
2 P.M. - 6 P.M.

EXTENDED COFFEE BREAK

[HTTPS://WEB.ISR.UC.PT/OPENDAY](https://web.isr.uc.pt/openday)  
ISR - DEPARTMENT OF ELECTRICAL AND  
COMPUTER ENGINEERING | FCTUC

FREE REGISTRATION  
UNTIL 12 JULY



SCAN ME



<b>14:00</b>	<b>Welcome to Open Day and Workshop @ ISR-UC</b>
<b>14:15 - 15:15</b>	<b>Presentation of Research Activities</b>
14:15	<b>UniQode: an integrated solution for secure authentication and traceability</b> Allan Freitas da Silva /Guilherme G. Schardong
14:30	<b>The main challenges of Brain-computer interfaces: reliability and usability</b> Aniana Cruz
14:45	<b>CodeFace: a deep learning printer-proof steganography for face portraits</b> Luiz Schirmer
15:00	<b>Machine intelligence in Rehabilitation, Pathologies Characterization and Wildfires</b> João Ruivo Paulo
<b>15:15 - 15:35</b>	<b>Kick off on Posters Presentation (in the Coffee break spot)</b>
<b>15:35 - 16:15</b>	<b>Coffee Break &amp; Poster session</b>
<b>16:15 - 17:15</b>	<b>Presentation of Research Activities</b>
16:15	<b>Computational Intelligence on Industry. Projects: iProMo &amp; InGestAlgae</b> Jérôme Mendes
16:30	<b>Deformable Face Models in the Wild</b> Pedro Martins
16:45	<b>Entities recognition through computer vision:faces and unique precious metal marks</b> João Marcos
17:00	<b>Motion Planning Supported by Reinforcement Learning in an Assisted Mobility Context</b> Luís Garrote
<b>17:15 - 17:30</b>	<b>Closing Session</b>
<b>17:30</b>	<b>Sunset gathering (free food and drinks)</b>

## Posters Presentation - 15:15 - 15:35

**An experimental assessment of depth estimation performance for three different depth cameras technologies in transparent and refractive scenes**

Eva Curto

**Artificial Perception Framework for Scene Understanding in Forestry Robotics**

M. Eduarda Andrada

**Biosignal-driven Machine agents and Reinforcement Learning**

João Perdiz

**CodeFace: A Deep Learning Printer-Proof Steganography for Face Portraits**

Farhad Shadmand

**Cooperative and Multimodal Localisation of 5G-enabled Multi Robot Systems**

Panagiotis Karfakis

**Deep Facial Diagnosis**

Jin Bo

**Deep Fuzzy Systems in regression applications: a view on interpretability**

Jorge Sampaio Silveira Júnior

**Deep Learning on Intelligent Transportation Systems**

Bruno Silva

**Deep Learning-based Perception Modules applied in a Dynamic Environment-based Visual Interface System for Brain-actuated Wheelchairs**

Ricardo Pereira

**Efficient Large-Scale Mapping and Path Planning in Forest Environments**

Afonso Carvalho

**EU-MORE Project: Accelerating electric motor renovation in the EU**

João Fong

**Improving the reliability and probabilistic interpretation of deep neural networks in critical applications**

Pedro Conde

**LiDAR semantic segmentation in SafeForest project**

Habibu Mukhandi

**Multi-camera Wireless Capsule Endoscopy: Segmentation of Movement and Local Panoramic Views for Capsule Localization and Lesion Detection**

Marina Duarte de Macedo Oliveira

**Multi-Robot Path Planning based on Self-Organized Map for Autonomous Robots**

André Araújo

**Multimodal perception for precision agriculture**

Tiago Barros

**Off-Grid Solar Systems for Sustainable development - Design and Optimization of a Cold-Storage System with Thermal Energy Storage for Developing Countries**

Evandro Garcia

**Online optimization toward sustainability: application to Wastewater Treatment Plant**

Rodrigo de Oliveira Salles

**Optimization and Management of Microgrids to Deliver High Power Quality in Critical and Disaster Situations**

Alexandre Filipe Matias Correia

**Robustness of deep learning based face recognition under morphing attacks**

Iurii Medvedev

**Single trial detection of error-related potentials in brain-machine interfaces**

Mine Yasemin

**Toward Autonomous Fabrication of Chip-integrated Stretchable Circuits**

Pedro Lopes

**Visual Odometry in Wireless Capsule Endoscopy**

Nahid Nazifi

**Visual Perception Methods for Autonomous Driving**

Gopi Krishna Erabati

## ORGANIZING TEAM

CRISTIANO PREMEBIDA

JÉRÔME MENDES

JOÃO MARCOS

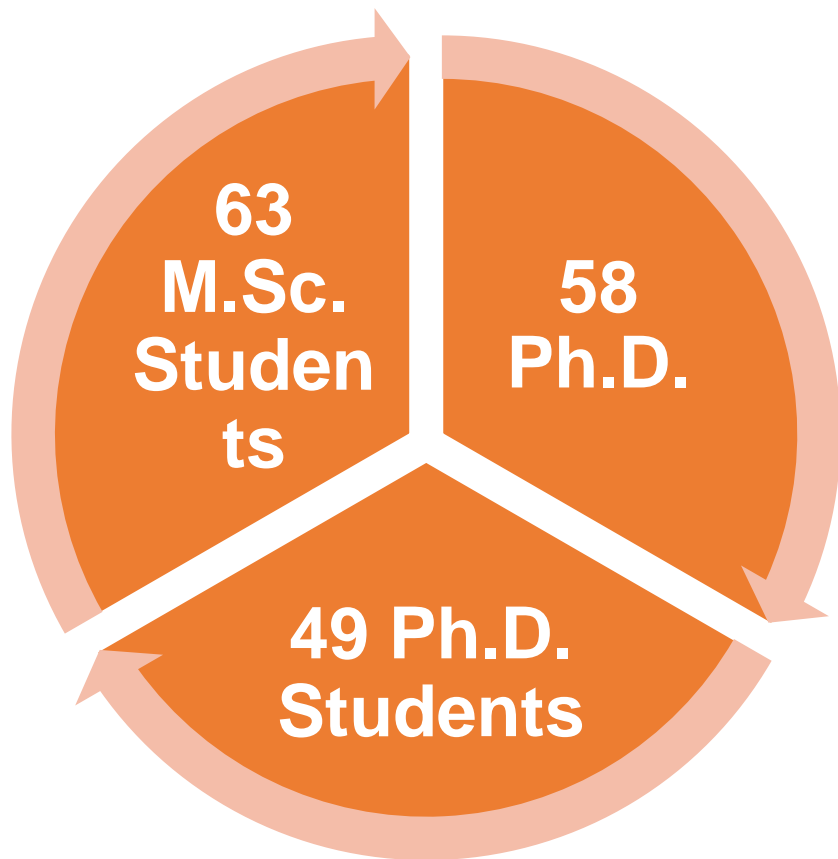
JOÃO RUIVO PAULO

MAHMOUD TAVAKOLI

NUNO GONÇALVES

# Institute of Systems and Robotics





**Researchers at ISR-UC**

### Spin-Offs

OptiSigma  
Energia &  
Ambiente, Lda



Perceive 3D  
S.A.



ActiveSpace  
Technologies



Ingeniarius



Softbionics





# Presentation of Research Activities