ISR-Connected 3.0

March 2019, issue #3

Welcome to the March Issue of ISR-Connected.

March is a special month, filled with important celebrations: like the International Women's Day (March 8), Father's Day (March 19), the Equinox and arrival of Spring and, last but not least, the Nowruz (the Persian New Year, also on March 21) aligned with the Equinox and beginning of Spring.

Until the next Equinox, days will become longer than nights, which positively influences most people's mood, which perhaps has a causal effect with a larger number of scientific publications and approved grants ... until the next Fall.

Please enjoy all the interesting information concerning March@ISR-Connected.

José Santos-Victor

# What's New



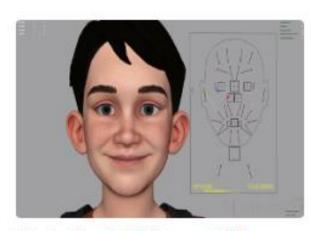
A Step Towards Distributed Control of Massive-scale Networks

João Miguel Oliveira Domingos

These to cotan the Master of Spierce Degree in Electrical and Computer Engineering

## Luís Vidigal Award 2018

The Luís Vidigal Prize awards, every year, a cash prize to the student author whose thesis gathers the best scientific, innovation and quality characteristics. João Domingos, tutored by João Xavier, won the 2018 edition for his Master's thesis: "A Step Towards Distributed Control of Massive-scale Networks." The award was announced at the opening session of the JEEC IST Engineering and Tech Talks. To learn more about João's vision for the thesis and current goals click here



#### Marie Curie Fellow at ISR

Stevo Rackovic is working on a project related to rich logic optimization, a field in the animation industry. After his theoretical studies at IST he will be working with, 3Lateral, a company focused on creating biokinetic models of the human form using computer graphics. This project is part of BIG MATH, a EU funded project that aims to provide a group of young mathematicians with up-to-date training and knowledge for cutting-edge research on mathematical disciplines. Learn more about the work and fellowship, here



## Participation in student organised events

ISR was recently represented in two events, Jornadas de Engenharia Eletrotécnica e de Computadores (JEEC) which took place from 11-15 March and Jornadas de Engenharia Mecânica (MecanIST) from 18-22 March. Both these events counted on the participation of hundreds of students, industry liaisons and even curious IST employees. ISR's robots are always a point of great enthusiasm and a lot of young people showed an interest in learning more about ongoing projects and possibilities to contribute during their studies.



## Maria de Lourdes Pintasilgo Award

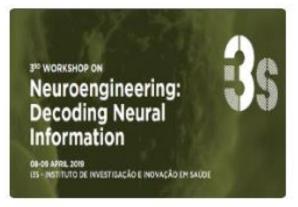
The Maria de Lourdes Pintasilgo Award annually recognises the contributions of outstanding women to the field of engineering. Prof<sup>a</sup> Manuela Veloso was honoured in the 2018 edition, for her exceptional work in the fields of robotics, Al and automatic learning. Her connection to Instituto Superior Técnico is evidenced by frequent visits, co-tutoring of students, and participation in research and development projects, several of those in collaboration with ISR-Lisboa researchers. The ceremony took place on Monday, the 25th, at Salão Nobre. More

# **Opportunities**



## Research Assistant Positions

Openings for two research assistant positions as part of the FCT project Human-aware Service Robots for Domestic Environments (HARODE). The focus will be on the research problems of deploying autonomous robots in domestic environments to perform tasks: integrating human-robot interaction; decision-making under uncertainty; perception; navigation; and object manipulation. To request further information and/or to apply, please contact the responsible



## Neuroengineering Workshop

Occurring on April 8-9, this workshop aims at promoting an intellectually stimulating environment where new ideas can be exchanged and new collaborations can be forged. By combining neuroscience with engineering fields such as computer science, information theory, electronics, nanomaterials, among others, neuroengineering creates new ways to reveal, repair and even enhance human brains. More information and registration <a href="https://example.com/here">https://example.com/here</a>.

Professors, Rodrigo Ventura and Pedro Miraldo.



## Funding for Partnerships

Until May 31st through the Balcão 2020 platform, copromotions projects led by Portuguese companies in partnership with national academic entities may apply for financing. Organizations that contribute to intergovernmental initiatives can help consolidate the intergovernmental initiative "Atlantic Interactions" in the topics identified in the respective programs of CMU Portugal, MIT Portugal and UT Austin Portugal. The goal is to build a model in which national companies may lead to the modernization process and enhance the innovation ecosystem in Portugal. Learn more on how to apply at the Nacional Innovation Agency site



### Job Opportunity in the UK

Latent Logic is looking for a Robotics Engineer to reinforce the team and contribute to the development of autonomous systems. They are looking for someone with a passion for autonomous systems, a desire for excellence in real-world, practical applications, use of software development best practices to promote modularity and flexibility and commitment to developing strong working relationships with the wider team, and investment in building trust through open communication. This role is expected to start between March and May 2019, and is based in Oxford, U.K. Apply by sending your CV here or learn more

# Media & Culture



#### Exhibit on the Brain

From this month on and until June 10 2019, an exhibition at Fundação Calouste Gulbenkian takes you on a journey on the brain's origin, complexity and challenges. Among a 500 million-year-old brain, a giant interactive synapse, and Egyptian papyri fragments, you'll also find a robot previously used on ISR projects. Nao welcomes curious visitors by dancing and interacting with them. Learn more about the exhibit here



#### Marco Miranda Interview

Marco Miranda is an MSc student, currently working on his thesis ar LaSEEB. Besides using EEG data to learn how the brain reacts to sound stimuli, Marco is also a musician that crosses the sound of the Portuguese guitar and electronics. Learn more about these intersecting worlds by watching the "Outras Histórias" episode, by RTP, in which Marco is interviewed on his story and goals. Watch here



## Lecture by 2018 Fields medallist Alessio Figalli

On 22 October 2018, ETH Zurich held an honorary lecturer in celebration of Alessio Figalli's win of the 2018 Fields Medal. This lecture was recently shared by Prof. António Pascoal, to whom it was "a reminder that there are still people that keep seeking answers to deep questions about the world and are fortunate and brilliant enough to eschew easier and often more convenient routes in pursuit of short-lived, trendy, and often vacuous topics. I truly enjoyed this video, and I thought I should share it with you" The full lecture can be watched here



#### Anecdotes from the Field

Many researchers of digital evolution can provide examples of how their evolving algorithms have creatively subverted expectations. Researcher Mihai Andries shares this collection of anecdotes from the Evolutionary Computation and Artificial Life Research Communities. "The article is interesting because it exposes biases of which scientists should be aware in their research: when designing cost functions for sorting lists, optimising gait, or finding optimal controllers for playing tic-tac-toe games. Great scientific articles exemplify how to do research, but it is just as important to know which errors to avoid." Read







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