

With the last issue of ISR-Connected of this year, I would like to express my warm seasons' wishes of joy and happiness to you, family and friends.

This is a special period, devoted to family and friends, and a moment to look back to all we did during 2018, to make new plans and resolutions, and to accelerate towards a New Year to be filled with joy, challenges and achievements. As a small Christmas gift, you will find a short [video](#) on "ISR-Lisboa's Brief History of Time", prepared by Bárbara Teixeira, including some of the pictures collected before the ISR Xmas/Solstice party.

I wish you all a Merry Christmas and a Happy New Year.

P.S: "Learn from Yesterday, live for today, hope for tomorrow." Albert Einstein

José Santos-Victor

What's New



dozens

- OF NEW PUBLICATIONS
- CONFERENCE PAPERS
- JOURNAL PAPERS
- BOOKS
- PHD THESIS
- MASTER DEGREES



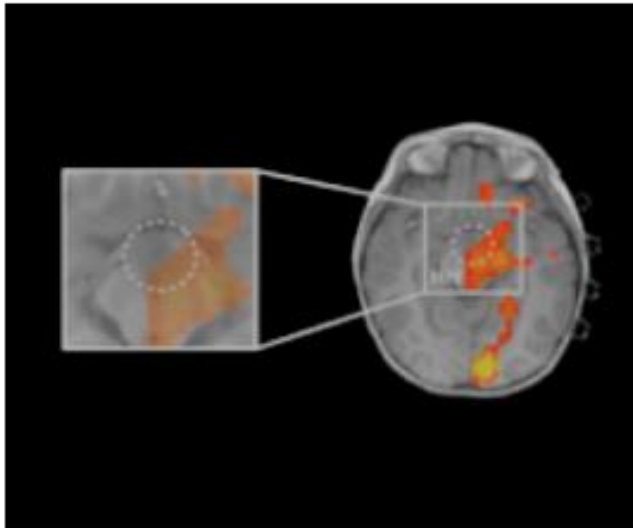
Institute de Sistemas
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Year at a glance

As 2018 comes to an end it's time to look back on a full year of intensive research, plenty of activities and events, a great number of achievements and publications and thousands of interactions with the general public. An extended thank you to those who most regularly welcome the students who visit ISR: Isabel Ribeiro, Rute Luz, Plínio Moreno, José Gaspar, Rita Cunha, Bruno Guerreiro and the SocRob team. After taking time to reflect on all that has happened this year let's prepare for an even fuller year to come. Happy Hollidays and thank you for being a part of the ISR|Lisboa community this past year. [More](#)

LaSEEB latest collaborations

Over the latest weeks the LaSEEB team is keeping active in their participation in events and meetings. Prof. Patrícia Figueiredo represented ISR|Lisboa in the Portuguese Neurology Congress 2018, giving a talk about technological innovation and artificial intelligence, while Prof. Rita Nunes and Tiago Fernandes visited the Medical Imaging Research Center, in Bangalore, India, as part of an ongoing collaboration aiming to develop a low field Magnetic Resonance Imaging scanner for stroke imaging. You can keep an eye of the group's latest news [here](#)



Disclosing networks to understand the brain

Learn more about how an ending project is opening doors to new research. Rodolfo Abreu's work, coordinated by Patrícia Figueiredo might have focused on a particular health issue, but it offered tools with which the team may find solutions for multiple problems. Read more to learn how this work came to be and why research on epilepsy can have implications in other disorders that are related to disconnection syndromes or network disease, [here](#)

Inside ISR

Winter Solstice Celebrations

On the 17th of December ISR|Lisboa celebrated an early solstice with a fun gathering, which included a gift exchange, plenty of socialization and a much-awaited surprise activity. The community was present in weight and had to work together on a fun "escape game", a challenge only surpassed with lots of teamwork. The reward was waiting at the Collaboratorium, where everyone got to engage in a present swap and partake in some winter treats. See a gallery of the event [here](#)



Portugal entra nos carris da Net

Governo disponibiliza 25 milhões para programa de desenvolvimento em tecnologias da informação

A administração central tem um plano para os próximos meses para desenvolver o setor das tecnologias da informação, através de um conjunto de medidas que abrangem desde a promoção de startups à criação de centros de investigação de referência, como o Instituto de Engenharia de Sistemas e Tecnologia da Universidade de Coimbra (INESC TEC), em Lisboa, ou o Centro de Estudos de Engenharia de Sistemas e Tecnologia da Universidade de Aveiro (CESAT), em Aveiro.



O plano prevê a criação de um centro de investigação de referência em Engenharia de Sistemas e Tecnologia da Universidade de Coimbra (INESC TEC), em Lisboa, e o Centro de Estudos de Engenharia de Sistemas e Tecnologia da Universidade de Aveiro (CESAT), em Aveiro. O plano também prevê a criação de um centro de investigação de referência em Engenharia de Sistemas e Tecnologia da Universidade de Coimbra (INESC TEC), em Lisboa, e o Centro de Estudos de Engenharia de Sistemas e Tecnologia da Universidade de Aveiro (CESAT), em Aveiro.

Throwback: ISR Open Day

The National Day for Scientific Culture happens every year on November 24th. This day was created in 1996 to celebrate the birthday of a Professor of Chemistry and Physics, Rómulo de Carvalho. Also known as António Gedeão he was a proponent for the promotion and teaching of science in national soil. For many years this was an open day at ISR|Lisboa, used to showcase the latest scientific efforts. Professor Isabel Ribeiro extended this look back with pictures from a visit on November 24, 1999.

Masters achieve top score

Congratulations to the Master students who were rated with 20/20 on their thesis. João Pereira's work "Unsupervised Anomaly Detection in Time Series Data using Deep Learning" was tutored by Margarida Silveira; Filipa Valdeira's "Hybrid Localization in Underwater Environments" was guided by João Pedro Gomes and Cláudia Soares, while João Domingos developed his thesis "A Step Towards Distributed Control of Massive-scale Networks" aided by João Xavier.



Press & Culture

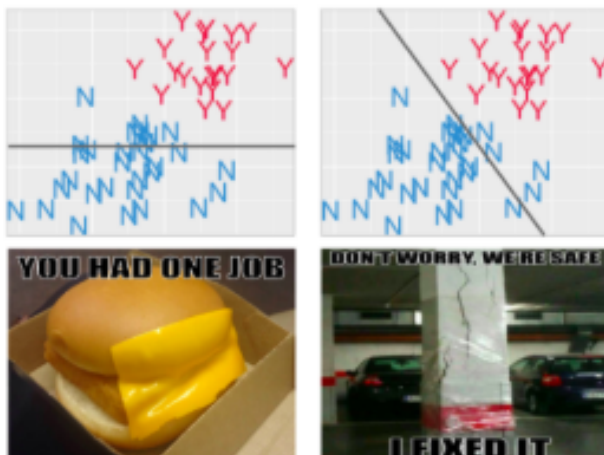
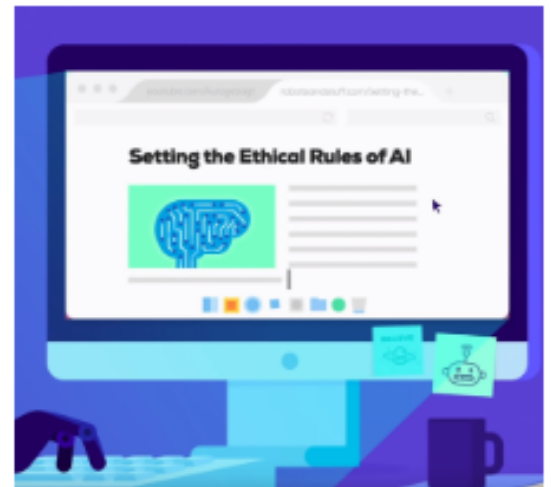


Insider

An article by Insider.dn, which focused on what is being done in the field of robotics in Portugal, featured several projects currently being developed at ISR. Besides writing about Vizzy, the Mbot, MEDUSA DEEP SEA, the PEPE Platform, or Feedbot, several partners that ISR-Lisboa has the pleasure of working, or has worked with in the past, like CMU Portugal, IDMind or Pavilhão do Conhecimento are also mentioned as references in Portuguese robotics and AI. Read the article to get a small "taste" of all this exciting research, [here](#)

Do robots deserve rights?

Kurzgesagt – German for "In a nutshell" - is a Munich-based YouTube channel and design studio that is best known for their distinctive animation videos. Raising awareness for topics from the fields of science, space, technology, biology, history and philosophy, their goal is to inspire people to learn. They examined the ethical implications of robotic "citizens" and what would happen in the hypothetical event of machines gaining conscience. You can watch it [here](#).



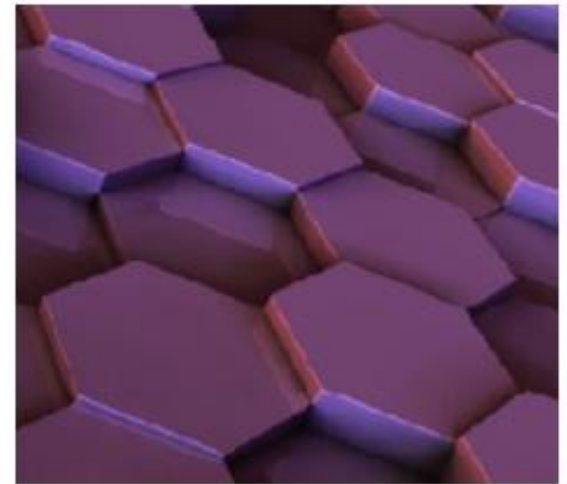
Machine learning

How can you explain machine learning to someone who knows nothing about it? In this article Chief Decision Intelligence Engineer at Google writes about the subject in an easy way and by using metaphors so anyone can understand the topic. If you are interested in the subject or looking for a way to better understand or explain it to someone, read the article [here](#)

Events & Opportunities

Opportunities for Marie Curie grant

There are currently two open positions for the Doctoral Programme in Statistics and Stochastic Processes to study and develop advanced algorithms for big data processing, in the frame of the BIGMATH project (Marie Curie ITN H2020), with emphasis on the topics of optimization of biokinetic models based on large 4D sequences with 3Lateral Studio or scoring and statistical prediction of credit default with SDG Group USA. Read more about the conditions and required qualifications to apply, until December 31st, [here](#)



**FESTIVAL
NACIONAL DE
RO
BO
TICA
2019
GONDOMAR**

Call for Papers - ICARSC 2019

Organized by University of Porto's Faculty of Engineering (FEUP) and sponsored by IEEE Robotics and Automation Society and the Portuguese Robotics Society, the 19th IEEE International Conference on Autonomous Robot Systems and Competitions has an open call for papers. Deadline for submissions is January 25, while the main event will take place from 24-26 April 2019. More about the event [here](#)

Open participation in Magazine

Into the Void is a science magazine that dedicates two pages of every issue to researchers who are looking for a platform to communicate with an interested public. Explore the previous issues [here](#) to learn how other researchers have done it in the past and consider participating with your own insight, or simply to look for the interesting features.



FELIZ
NATAL

*Merry
Christmas!*



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