



# ISR-Connected Number 27, July 2015



## ISR Summer Solstice Celebration

**(July 22, 6PM, ISR Meeting Room)**

Dear all,

The Summer Solstice has been celebrated for centuries and plays a central role in the realm of scientific endeavor. ISR researchers and collaborators cannot go on vacation without properly celebrating this phenomenon and seek inspiration for the second part of the year.

**I would like to invite all ISR researchers to join the ISR Summer Solstice Celebration on July 22, at 6PM and enjoy a moment of relaxation.** Soft drinks, snacks and other neurotransmitters will be provided. (you are welcome to bring and share drinks or special snacks from your home country).

In the beginning there will be a surprise to be shared with all the participants in this memorable celebration. Furthermore, all participants will be awarded a free one-year subscription of ISR-Connected!



See you all there!  
José Santos-Victor

P.S.> Advanced reading to prepare for the celebration [here](#) and [here](#)

P.P.S.> The celebration will be held at the ISR Meeting Room, facing North as appropriate for a Solstice Celebration.

UCL INSTITUTE OF CHILD HEALTH

## RECRUITMENT ADVERTISEMENT

**Job title:** Research Associate  
**Department / Division:** UCL Institute of Child Health  
**Unit:** Developmental Imaging and Biophysics  
**Grade:** UCL Grade 7  
**Hours:** 36.5  
**Salary (inclusive of London allowance):**  
Up to £ 37,152 per annum (based on experience)  
**Closing date:** August 17th 2015



For more details contact  
[Teresa Murta \(LASEEB\)](#)

**FCT** Fundação para a Ciência e a Tecnologia  
MINISTÉRIO DA EDUCAÇÃO E CIÊNCIA

## Career development 2015 FCT Investigator Programme

The FCT Investigator programme aims to support the recruitment of outstanding researchers into Portugal's R&D centres. Open to scientists of all nationalities, and across research fields, this highly competitive programme targets scientists with exceptional track-records and clear potential to develop innovative research. Close to 600 new FCT Investigators have been selected in the three previous calls. The 2015 call is expected to fund 200 new FCT Investigator grants ... [\(more\)](#)

The 2015 [FCT Investigator Call](#) is now Open with the deadline of **September 15**.

### Read all documents through

- Check the evaluation guidelines and be sure to include all relevant information.
- This is important to prepare a strong proposal.
- The call will be very competitive and you have to highlight the key "selling" points that make the proposal unique!

### Candidates will have to indicate:

- The Host Institution (LARsYS - Laboratory of Robotics and Engineering Systems; I will check if ISR is possible, this is an on-going discussion with FCT since January this year).
- The Legal institution signing should be: IST-ID (Associação do Instituto Superior Técnico para a investigação e Desenvolvimento)

### Institutional Description (can be enlarged if you have space available)

The Association of Instituto Superior Técnico for R&D (IST-ID) is a private not-for-profit research institution, fostering knowledge transfer and R&D activities and providing support to IST R&D Units, in terms of installations, campus facilities, services.

IST is the premium engineering, science and technology school in Portugal, integrating competences from all fields of engineering and fundamental sciences, creating a unique multidisciplinary scientific environment. Its mission is to provide top quality higher education as well as developing RD&I activities that meet the highest international standards.

The research will be conducted at the Institute for Systems and Robotics (ISR/IST), an IST's R&D unit, home to more than 40 PhDs and part of the LARsYS (Laboratory for Robotics and Engineering Systems - [www.larsys.pt](#)). ISR/IST is engaged in a new generation of research challenges pushing the frontiers of knowledge, while offering world-class doctoral training with top universities (e.g. dual/joint degrees with MIT, EPFL, CMU) and fueling the

collaboration with industry. ISR/IST develops state-of-the-art engineering solutions and projects with a clear societal impact, and has a long track record of participation in EU and other international projects. ISR/IST hosts 5 groups working in Robotics and Information Processing, Systems and Control Theory, Signal Processing, Computer Vision, Optimization, Intelligent Systems and Biomedical Engineering. ([www.isr.ist.utl.pt](#))

### Information loop

- I would like to be informed about applications supported by ISR and ISR researchers

Wishes for hard work and strong proposals,  
José Santos-Victor (ISR Director)

O nosso colega **Luís Custódio** (IRSg, Direcção) fez 25 < x < 75 primaveras na passada 6ª feira, dia 17/7.



(da esquerda para a direita: Ana Santos, Filomena Viegas, Ana Mateus, Luís Custódio, João Sanches, Fátima Martinho e Alexandra Araújo. Fotógrafo: José Santos-Victor)

Information and Communication Technologies Institute  
**Carnegie Mellon | PORTUGAL**  
AN INTERNATIONAL PARTNERSHIP

## Faculty Exchange Program

The main goal of the Faculty Exchange Program is to accelerate the adoption of best practices in research, education and innovation, through cultural immersion at Carnegie Mellon University.

**Deadline dates for submitting the applications:**  
Spring 2016, Summer 2016 and Fall 2016 - July 29th, 2015  
... ([more](#))



### Robotic research: are we applying the scientific method?

Gianluca Antonelli\*  
Department of Electrical and Information Engineering, University of Cassino and Southern Lazio, Cassino, Italy

Once upon a time validation of robotic research was relatively straightforward. Let us assume, for example, that a researcher had published in a journal a novel adaptive control law with a numerical example on a two-link robot. Beyond the formal proof of convergence, he supplied to the reader the differential equations used to model the system, including the corresponding dynamic parameters (no more than 20 numbers), the eventual quantization and discretization of the controller, the solver details of the software used, and the sensor noise statistics. Not only the reviewers, thus, but also each single reader would have the possibility to re-run the numerical simulations in a half-day of work. The community would have the possibility to test, validate, generalize, and benchmark the algorithm... [more](#).

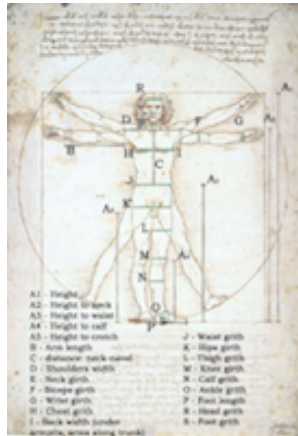


(Sent by Pedro Lima (IRSg))

## our people and work

### Athira Nambiar (PhD student, Vislab, ISR, IST)

I received my B.Tech degree in Electronics & Communication Engineering with University First Rank from Govt. College of Engineering, Kannur, Kerala, India in 2009. I completed my Masters from Department of Cyber Security, Amrita Vishwa Vidyapeetham, India and Department of



Telecommunications of Politecnico di Torino, Italy, in 2011 under Erasmus Mundus programme.

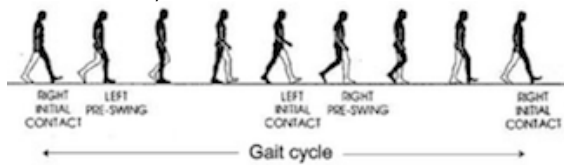
After that, I worked as a researcher in the Multimedia Signal Processing group in Instituto de Telecomunicacoes, IST under Prof. Paulo Correia on FCT project named 'Secure Multimodal Biometric Recognition System' for a couple of months, where I worked on Human Gait analysis. In 2013, I started my research career in Computer and Robot Vision Laboratory (Vislab), where I mainly involved in 'High Definition Analytics' project. After an year of work experience, I started my PhD under FCT grant last year

under the supervision of prof. Alexandre Bernardino. My research interests are in image processing, computer vision for video surveillance, machine learning, and biometrics.

In my PhD, I propose the study of Person Re-Identification using Biometrics and appearance based features, and to employ it onto video surveillance and robotic platforms. State-of-the-art re-identification mechanisms mostly focus on the appearance features such as colour and texture info. However, they suffer from appearance constancy



problems due to their dependence on scene illumination, object geometry, and camera parameters all of which restrain appearance features being candidates for long term person re-identification. In this scenario, I study the influence of soft biometric features which are more coherent and reliable (viz., gait, shape, face, height, anthropometric measurements, limb movements etc.) for long term human



re-identification which are the characteristics of each individual. In this study, we intend to ultimately come up with a robust automatic system for Person re-identification by exploiting the aforementioned modalities and also by exploiting other contextual cues.

### Advisors



Alexandre Bernardino (VisLab)



José Santos-Victor (Vislab)



Jacinto Nascimento (SIPg)