FUTEBOL
Federated Union of Telecommunications Research Facilities for an EU-Brazil Open Laboratory

Dr Raquel Harper
CONNECT
Trinity College Dublin

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Meet our Director

Professor of Telecommunications (personal chair) at Trinity College Dublin, **Prof. Luiz DaSilva**, a native of Rio de Janeiro, also holds a research position in the Bradley Department of Electrical and Computer Engineering at Virginia Tech. Professor DaSilva is an IEEE Communications Society Distinguished Lecturer (2015-2018), Fellow of Trinity College Dublin, and a Fellow of the IEEE, for contributions to cognitive networking and to resource management in wireless networks.
• A 60 M€ Irish research centre in communications and networks
• Broad international collaborations
• Experience in hosting Brazilian students (e.g., doutorado sanduiche) and academics
What is FUTEBOL?

• A 3 M€ research project Coordinated by Trinity College Dublin and UFRGS

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Beginnings

• European Commission and the MCTI through Rede Nacional de Ensino e Pesquisa (RNP) came together to honor international collaboration agreements in the ICT area, and in particular IoT and 5G.
EU – Brazil ICT dialogues

Consortium

- 3 universities (Trinity College, University of Bristol, IT Aveiro), 2 research centres (VTT, IMEC), 1 company (Intel) in Europe
- 5 universities (UFRGS, UFMG, Unicamp, UFC, UFES) in Brazil
The Goal of FUTEBOL

To develop and deploy research infrastructure, and an associated control framework for experimentation, in Europe and Brazil, that enables experimental research at the convergence point between optical and wireless networks.
Relevance to European and Brazilian markets

Europe: 3 out of 4 homes have broadband Internet connectivity

Brazil: 53% of municipalities do not have access to fibre
**FUTEBOL** will facilitate the co-design of *wireless* and *optical* network resource management through experimentation

- **$10B** market for NFV, SDN, virtualization in 2015 alone
- **$1.5T** value IoT will add to the economy by 2019
- **$2.7B** small cell market by 2017
Objective 1: To deploy facilities in Europe and Brazil that can be accessed by external experimenters for experimentation that requires integration of wireless and optical technologies.
Objective 2: To develop and deploy a converged control framework for experimentation at the wireless/optical boundary, currently missing in FIRE and FIBRE research infrastructure
Objective 3: To conduct industry-informed research using the optical/wireless facilities
Objective 4: To create a sustainable ecosystem of collaborative research and industrial/academic partnerships between Brazil and Europe
Objective 5: To create education and outreach materials for a broad audience interested in experimental issues in wireless and optical networks
In summary...

This will lead to enhancements to commercial products and services, telecommunications business models, and education, thus generating a positive impact on society.
Who is it for?

- Wireless and optical network operators
- SMEs dealing with network deployment and management
- Network equipment manufacturers
- Solution providers for the Internet of Things
- Over-the-top service providers
- Students and researchers in higher education
Impact

- **52** publications in major conferences and journals (both in optical and wireless domains)
- **13** joint publications.
- **16** invited talks
- **2** industry-facing workshops (Europe and Brazil), and 1 contribution to 3GPP.
- **YouTube** channel tutorials
- **82** female researchers
- Audiences reached: **13 414** (science, civil society, policy makers, industry, media)
Parting words

- FUTEBOL has been developing research infrastructures in Europe and Brazil to advance research and innovation on integrated wireless-optical telecommunication.
- A large-scale project is built over many years of smaller-scale collaborations between the partners.
  - Some of the relationships built or strengthened in this event will be an important step towards the success of other projects like FUTEBOL.
Future calls

• In 2020, under H2020 ICT programme the following call topic


Questions? Comments?

http://www.ict-futebol.eu

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