



IEEE Global Communications Conference
4-8 December 2017 // Singapore
Global Hub: Connecting East and West
CALL FOR PAPERS



Call for Papers for *Selected Areas in Communications Symposium* *Internet of Things Track*

Scope and Motivation:

The Internet of Things track will focus on the emerging challenges and disruptions that are happening around the Internet connectivity with the introduction of 6LoWPAN (IPv6), M2M, Low Power Wide Area Networks (LP-WAN), NB-IoT and Ultra Narrow Band for enabling a wide range of global communication solutions that offer the bandwidth, coverage, costs and power consumption for every potential scenario. The Internet of Things (IoT) is evolving our knowledge and conception of the world as a hyper-connected environment that has raised new requirements for making the IoT ready for large scale deployments. One of the design considerations, for the success of the IoT, has been to integrate scalable device management, edge intelligence capabilities, Linked Data, and Open Platforms based on Open Standards and Open Technologies to promote and ensure the interoperability, homogeneity, openness, security, flexibility, and heritage of all existing hardware and tools. This track will focus on addressing the key communications innovations, protocols and technologies for making feasible the IoT in the real world via new experiences in applications and services in domains such as Smart Cities, Connected Home, Factories of the Future – Industry 4.0, Smart Mobility & Connected Car, Smart Grid & Connected Energy Infrastructure, Smart Agriculture...

The objective is to present how to reach a global access to the services, devices and relevant data via an efficient support for global communications. Global communications based on the most emerging protocols that can be the basis for the Next Generation of Internet, i.e., the basis that make feasible a Connected World built through a Global Internet of Things.

Finally, the aim of the Internet of Things track is to bring together researchers from both academia and industry in order to have a forum for discussion and technical presentations on the recent advances in theory, application and implementation of the Internet of Things concepts.

Main Topics of Interest:

The Internet of Things Track seeks original contributions in the following (but not limited to) topical areas:

- IPv6 and Global Internet Connectivity for the IoT (6LoWPAN, GLoWBAL IP, etc.)
- Innovative Internet Connectivity in LP-WAN, WPAN etc.
- Innovative Internet of Things data architectures (Publish / Subscribe, Blockchain, etc.)
- Security, Trust, Privacy, Bootstrapping, Commissioning, Identity Management and Access Control for emerging Internet of Things architectures and solutions
- Digitalization of the physical world via Edge Computing and Cloud Computing Services
- Internet of Things Open Ecosystems and Open Platforms
- Data Context brokers and scalable data management
- Mobility, Geo-fencing and Geo-location for the IoT 5G involvement in the Internet of Things (Machine Type Communications, NB-IoT etc.)

- Security, Trust, Privacy, Identity Management and Object Recognition in the IoT
- Data management, Data Fusion and Big Data
- Edge Computing and Distributed architectures for sensing, control and processing
- Semantic Technologies for the IoT, Linked Data and Web of Things
- Routing and Heterogeneous co-existence for the IoT (RPL, 6TiSCH etc.)
- Internet of Things Experimentation Infrastructures and Testbeds
- Experiences with Federated Testbed and Scalable deployment of services
- Emerging agile technologies for the Internet of Things deployment and scalable provisioning (Microservices, OpenStack, Dockers etc.)
- Interoperability between IoT platforms
- IoT Devices Management
- Human-oriented and context-aware IoT services
- Lightweight structured data (EXI, JSON, Schema.org, NGSI Data Models...)
- Energy and Green Technologies for the IoT
- Novel concepts for human and social integration in the Internet of Things such as Crowd-sensing and Social IoT.
- Large Scale Pilots Experiences and field trials
- Applications of the Internet of Things in: Connected Home, Connected Car, Smart Cities, Energy, Factory of the Future – Industry 4.0, Agriculture, Environmental Monitoring etc.

Sponsoring Technical Committees:

- Internet of Things Technical sub-Committee (<http://iot.committees.comsoc.org/>)
- Technical Committee on Information Infrastructure and Networking

How to Submit a Paper:

The IEEE Globecom 2017 website provides full instructions on how to submit papers. You will select the desired symposium when submitting. **The paper submission deadline is April 1, 2017.**

Symposium Co-Chairs:

- Antonio J. Jara, University of Applied Sciences Western Switzerland (HES-SO), Switzerland, jara@ieee.org

Biographies:



Dr. Antonio J. Jara; As. Prof. PostDoc at University of Applied Sciences Western Switzerland (HES-SO), vice-chair of the IEEE Communications Society Internet of Things Emerging Technical Committee, and founder of the Internet of Things Company HOP Ubiquitous S.L. (www.hopu.eu), He did his PhD (Cum Laude) at the Intelligent Systems and Telematics Research Group of the University of Murcia (UMU) from Spain in 2013. He received two M.S. (Hons. - valedictorian) degrees. Since 2007, he has been working on several projects related to IPv6, Security and WSNs in automation and healthcare. He is especially focused on the design and development of new protocols for security and mobility for Internet of things, which was the topic of his Ph.D. Nowadays, he continues working on IPv6 technologies for the Internet of Things In areas such as security, heterogeneity integration, scalable device management and the application of IoT in sectors such as industry 4.0, energy, home automation and Smart Cities. He has also carried out a Master in Business Administration (MBA). He has published over 100 international papers (>1500 citations, h: 21), As well he holds several patents in the IoT domain. Finally, he participates in several European Projects about Internet of Things (networking, security and intelligence distribution – fog computing) and applied Internet of Things (Energy, Industry 4.0 and Smart Cities).