

Call for Papers for Selected Areas in Communications Symposium

Internet of Things Track (SAC-7 IOT)

Symposium Track Chair

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Submissions must be done through EDAS at: <https://edas.info/newPaper.php?c=22648&track=81063>
The paper submission deadline is October 14, 2016.

Scope and Motivation

This symposium is to serve as a driver for key challenges in communications in the Internet of Things (IoT) domain. IoT is one of the areas in communications with most disruptive innovation, evolution and applicability during the last years.

IoT is evolving from the initial steps about introducing Internet capacity to end-devices (consumer electronics, sensors, actuators, machines...) to a new generation of protocols, communications media and technologies to make it much more scalable, affordable, secure and reliable.

IoT addresses multiple layers as part of the communications stack. First, in the physical and medium domain the new innovations around co-existence, radio regulations for white spaces / subGhz, new medium layer technologies to cover wide areas with low power solutions, evolutions in personal areas network technologies to make it more user-friendly, power efficient, scalable. Second, Internet / network layer with new innovations around IPv6 with its adoption to new protocols such as Low Power Wide Areas Networks (LPWAN), evolutions for its support over constrained technologies such Bluetooth Low Energy, innovations in end-to-end security, access control, resources discovery, Future Internet experimentation etc. Third, reliable end-to-end protocols for data exchange, interoperability protocols, middleware, semantics, and global standards such as OMA etc. Fourth, innovation in IoT platforms, architectures, new paradigms such as edge computing, personal networks deployments, data management, big data, analytics, behaviours detection / analysis, privacy, identity, etc. Finally, key disruption in the development of smart ecosystems / environments with innovative applications for smart wearables, smart factories (industry 4.0 / factory of the future), smart cities (more open and agile smart cities), smart homes (more personalized and interoperable), healthcare / wellbeing (ambient assisted living), connected car (intelligent transport systems), and efficient use of resources (energy, water, etc.).

Main Topics of Interest

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 fundamentals, technologies, experimentation, applications and implementations of the Internet of Things concepts and this symposium solicits original contributions in, but not limited to, the following topical areas:

- IPv6 and other scalable addressing / identification mechanisms for Internet of Things
- Future Internet Research Experimentation for Internet of Things
- Innovative protocols for the Internet of Things (all the layers)
- New communications mediums for Low Power Wide Area Networks
- Networks co-existence and heterogeneity support
- Machine to Machine (M2M) and cellular-based protocols for Internet of Things
- Cloud computing, Edge Computing / Fog Computing integration with Internet of Things
- Software Defined Networks and Personal Networks deployment in Internet of Things
- Platforms, middlewares and experiences with Open Source in Internet of Things

- Big Data, data analytics, stream processing and scalable data management
- Linked and Open Data in Internet of Things
- Co-creation, design thinking and living labs in Internet of Things
- Privacy and data ownership in Internet of Things
- Web of Things, Everything as a Service and Webservices (W3C) in Internet of Things
- Crowdsensing, floating content and opportunistic Internet of Things
- Security, Trust and Identity management in Internet of Things
- Mobility, Localization and context-adaptive Internet of Things
- Context-aware and/or social Internet of Things
- Applications and Solutions for Factories, Cities, Wearables, Homes, Energy, Water, Agriculture...

Biography

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 Future Internet of things, which was the topic of his Ph.D. He was IoT researcher in United Technologies Research Center. Nowadays, he continues working on IPv6 technologies for the Internet of Things In areas such as security, heterogeneity integration and the application of IoT in sectors such as industry 4.0, energy, home automation and wearables. He has also carried out a Master in Business Administration (MBA). He has published over 100 international papers (>1400 citations, h: 20), 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, smart home and wearables).