

Call for Contributions

Submission:

1. **Inform the Chair:** with the Title of your Contribution

2. **Submission URL:**

<https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=SENSORCOMM+2018+Special>

Please select Track Preference as **VirtSens**

Special track

VirtSens: Service Management on a Virtualized, Shared, Wireless Sensors Network Infrastructure

Chairs and Coordinators

Mr Christian Cabrera, Trinity College, Dublin, Ireland

cabrerac@scss.tcd.ie

Dr Victor Cionca, Nimbus Centre, Cork Institute of Technology, Cork, Ireland

victor.cionca@cit.ie

along with

SENSORDEVICES 2018, The Ninth International Conference on Sensor Device Technologies and Applications

September 16, 2018 to September 20, 2018 - Venice, Italy

<http://www.iaria.org/conferences2018/SENSORCOMM18.html>

Wireless Sensor Network (WSN) deployments have primarily been private deployments running a single application. The data and services provided by such deployments are ruled by the decisions of the deployment owner and therefore limited in functionality. Throughout the years several proposals have been made for a change in paradigm towards the virtualization and sharing of WSNs, allowing the on demand deployment of multiple distinct concurrent applications on a generic, uniform, sensing infrastructure. By decoupling the infrastructure owner from the service provider, this paradigm allows more flexibility to the definition of services hosted on the infrastructure, and ultimately to the service offered to end-users. This, in turn, calls for a dynamic service life-cycle, where services are instantiated and configured on demand and integrated into novel and complex applications to satisfy user requirements. Service management must also include service monitoring, contract re-negotiation and potentially application re-composition, in case services become unavailable. Utilising a underlying uniform WSN infrastructure to transparently compose and integrate atomic services into complex user applications is the goal of the Internet of Things (IoT).

The purpose of this track is to develop a good understanding of the challenges of virtualized and shared WSNs and to design solutions that cover the entire space from the WSN infrastructure to the end user.

Starting at the level of the WSN infrastructure we are inviting works that analyse the performance and resource utilisation that can be achieved with sharing in a WSN, as well as the impact on these of the dynamic WSN characteristics, such as low power and lossy links; accurate comparisons between shared and legacy WSN deployments; and working solutions for WSN virtualization and sharing.

At the services level, the focus is on service representation, discovery and composition, as well as monitoring and negotiation and complete service management architectures, for dynamic and on-demand WSN and IoT.

Topics include, but not limited to:

- * Network virtualization in WSN
- * Shared WSN running concurrent applications
- * Software Defined WSN
- * Algorithms and protocols for centralised control of WSN, e.g., centralised scheduling, flow based routing
- * Algorithms for resource allocation on WSN (e.g Virtual Network Embedding)
- * Performance comparisons between shared and legacy WSNs
- * Impact of lossy links over central network control
- * Energy considerations in shared WSNs
- * Architectures for managing shared WSNs
- * Economic analysis of shared WSNs
- * Services for IoT applications
- * Service-oriented protocols for IoT applications
- * Service representation, discovery, composition, and execution
- * Service change management
- * Services at the edge
- * Micro-services management
- * QoS handling on shared WSN
- * End-to-end QoS handling
- * SLA negotiation for IoT services
- * Security, privacy and trust

Important Datelines

- Inform the Chair (see Contact below): As soon as you decided to contribute
- Submission: ~~June 4~~ **July 10**
- Notification: ~~July 2~~ **July 30**
- Registration: ~~July 16~~ **August 10**
- Camera ready: ~~July 22~~ **August 10**

Contribution Types

- Regular papers [in the proceedings, digital library]
- Short papers (work in progress) [in the proceedings, digital library]
- Posters: two pages [in the proceedings, digital library]
- Posters: slide only [slide-deck posted on www.iaria.org]
- Presentations: slide only [slide-deck posted on www.iaria.org]
- Demos: two pages [posted on www.iaria.org]

Paper Format

- See: <http://www.iaria.org/format.html>
- Before submission, please check and comply with the editorial rules: <http://www.iaria.org/editorialrules.html>

Publications

- Extended versions of selected papers will be published in IARIA Journals: <http://www.iariajournals.org>
- Print proceedings will be available via Curran Associates, Inc.: <http://www.proceedings.com/9769.html>
- Articles will be archived in the free access ThinkMind Digital Library: <http://www.thinkmind.org>

Paper Submission

<https://www.ariasubmit.org/conferences/submit/newcontribution.php?event=SENSORCOMM+2018+Special>

Please select Track Preference as **VirtSens**

Registration

- Each accepted paper needs at least one full registration, before the camera-ready manuscript can be included in the proceedings.
- Registration fees are available at <http://www.aria.org/registration.html>

Contacts

Chairs:

Christian Cabrera, cabrerac@scss.tcd.ie

Victor Cionca, victor.cionca@cit.ie

SENSORDEVICES logistics: steve@aria.org