

## Cloudification of the Internet of Things

The focus of this special issue is on the Internet of Things (IoT) with particular emphasis on the use of the Cloud as a central component of IoT architecture and a key infrastructural support for IoT applications. Leveraging its virtualized infrastructure and software-defined networking substrate, the Cloud is indeed in a good position to provide a flexible and scalable hosting environment for end-users with their profiles and privileges, the plethora of IoT applications in health, transportation, smart cities and many other domains, IoT generated data and control flows, Machine-to-Machine (M2M) communication, Big-data analytics, IoT management systems, security solutions, Network Function Virtualization (NFV), SDN-based data forwarding to name a few. The main objective of this special issue is to address the entire spectrum of research issues pertaining to the use of Cloud infrastructures in support of IoT systems from the sensors and machines to the end-users and application hosted in the Cloud. The special issue seeks novel research contributions and experience papers tackling the challenges in these areas, including but not limited to:

- Architecture and protocols based on Cloud for IoT
- Cloud infrastructure and middleware solutions for IoT
- Software Defined Network (SDN) for IoT
- Network Function Virtualization (NFV) for IoT
- Green communication for IoT based on Cloud solutions
- Centralized and distributed systems for IoT in Cloud environment
- Routing solution for IoT
- MAC layer for IoT
- M2M communication
- Security
- IoT traffic model
- End-users applications based on IoT and Cloud services
- Management system of IoT based on Cloud solutions
- Testbed and experimental platforms of IoT deployed in Cloud environment
- Cloud Radio Access Network for IoT (5G)

### Guest Editors

- **Nadjib Aitsaadi**, University Paris Est Creteil, France
- **Raouf Boutaba**, Waterloo University, Canada
- **Yutaka Takahashi**, University of Kyoto, Japan

Papers must be written in English and describe original research not published or currently under review by other journals or conferences. The length of the article file should not exceed 35,000 characters including spaces (i.e., around 5,500 words). The manuscripts that are outside the expected length are likely to be rejected. All relevant papers submitted will go through an external review process. A paper if it has been published partially in a conference, the authors should specify the add value of the journal paper comparing to the conference. Moreover, the submitted paper must contain at least 30% of novelty comparing to the conference paper. Submissions should be sent according to the instructions available at: <http://annalsoftelecommunications.wp.mines-telecom.fr/how-to-publish/>

The authors can directly submit their papers at: <https://www.editorialmanager.com/ante/> and must select in "Choose Article Type" item "CfP: Cloudification of the IoT".

### Proposed schedule

- **Manuscript submission** ~~September 1<sup>st</sup> 2015~~ **Extended deadline: October 30, 2015**
- **Notification** February 1<sup>st</sup> 2016
- **Online with DOI** As soon as accepted
- **Printed issue** September-December 2016