

23rd International Conference on Telecommunications

ICT2016 “Expansion to Small”

May 16 - 18, 2016

Thessaloniki, Greece | Makedonia Palace Hotel

Technical Sponsorship



Special Session

Big data analytics driven by Internet-of-Things technologies: Big things have small beginnings

Organizers: **Nikos Deligiannis**, *Vrije Universiteit Brussel – iMinds, Belgium*, **Ryoichi Shinkuma**, *Kyoto University, Japan*, **Yiannis Andreopoulos**, *University College London, UK*.

Call for Papers

The Internet-of-Things (IoT) marries a plethora of dynamic communications technologies, ranging from low-level sensing to large-scale applications with social impact. Research advances in small-scale components, such as sensor networks and low-energy communications protocols, form the core of advances in sensing, wearable computing, smart homes and urban development. Programmability, data management frameworks and self-organized networks are also essential aspects in IoT frameworks. At the same time, the exponential growth in data generation and network traffic created by IoT deployments requires new architectures for large-scale data storage, processing and analysis. Big data analysis offers the possibility of increased efficiency by valorizing valuable insights, thus generating the need for extreme computing capabilities. Cloud computing has become the de facto model for large-scale computing networks, comprising servers, storage, services and applications, providing high computing power, high performance, and accessibility.

Special Session topics:

PHY/MAC/Network layer technologies for IoT:

- modulation, channel coding, multiple access strategies and protocols
- distributed vs centralized synchronization and coordination of transmission/reception
- network topologies and network management solutions for IoT

Big data sensing, processing, and analysis

- compressed sensing, data compression and aggregation methods
- edge-based vs server-based processing algorithms for IoT
- scalable, distributed computing, for IoT, e.g., Hadoop, Apache Spark, etc.
- (distributed) optimization methods for IoT-related data and communications systems
- privacy, security and data-integrity considerations for IoT communications
- inference and data analysis for (social data) networks

Cloud-computing support for IoT-oriented deployments

- energy-vs-billing tradeoffs in IoT data offloading in cloud computing systems
- X-as-a-Service in IoT, where X is: Backend, Database, Information, Infrastructure, Network, Platform, Security, Software, and Storage

Prospective authors are invited to submit high-quality original technical papers following the rules of the Main Track of ICT 2016 for presentation at the conference and **publication in the ICT 2016 Proceedings and IEEE Xplore**, via EDAS, using <https://edas.info/newPaper.php?c=21703&track=78666>.

Important dates

Paper submission deadline: **February 20, 2016**

Notification of paper acceptance: **March 5, 2016**

Camera Ready Papers: **March 15, 2016**

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