

#### 9<sup>th</sup> International Conference on Computational Collective Intelligence (ICCCI 2017)

27-29 September 2017, Nicosia, Cyprus



# IoT-RC 2017

# Special Session on Internet of Things - Its Relations and Consequences

at the 9th International Conference on Computational Collective Intelligence (ICCCI 2017)

Nicosia, Cyprus, September 27-29, 2017

Conference website: http://cyprusconferences.org/iccci2017/

# **Special Session Organizers**

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### **Objectives and topics**

The IoT-RC 2017 Special Session offers an opportunity to gather research scientific works related to Internet of Things in context of ambient intelligence, ubiquitous networking, intelligent knowledge and expert system based services, smart applications, and mobile computing, high-availability paradigm, parallel and distributed intelligence, quality of services, as well as social, industrial and other aspects of Internet of Things.

The Internet of Things (IoT) is a novel paradigm which is shaping the evolution of the future modern services across the Internet. Implementation of solutions based on the idea of IoT services produces new challenges in such areas as management, security, technical solutions, infrastructure modeling, mobile devices support, sensor networks and many others. From a technological perspective, IoT represents a wide spectrum of hardware and software technologies with an intention of creating an integrated and balanced solution/service. The integration of smart application, cloud computing, internetwork technologies, hardware devices and sensor networks, intelligent interfaces based on knowledge or expert systems, and security solutions can be included, among many others.

Implementation of IoT concept into a real environment is not only a complicated technical solution, but also the matter of security and business aspects. To have a better insight into business operations it is important to apply data analysis techniques on their information to drive decisions and actions. This will allow setting the right strategy to achieve increased sales, identify issues and to become a dynamic business that can meet today's challenges of fast delivery. The other, yet important issue seems to be security of IoT solutions or optimized infrastructure, respectively. This is a key challenge and frequently also the limiting factor for a number of specific organizations, e.g., army, governmental organizations, or organizations working with sensitive data in general. From all that is described above, we may conclude that IoT solution/service design is a complex process requiring a system approach. This targeted session will address number of topics related to the above described aspects of IoT and its applications.

The goal of this special session is to bring together researchers from different fields of expertise, leading to better mutual understanding, and to promote interaction in this new and interdisciplinary area. All in all, we want to create an opportunity for the participants to exchange about a wide range of topics related to the area of Internet of Things.

## Topics of interest include:

- Business investment efficiency of IoT solutions,
- Implementation of IoT concept in Biomedicine,
- Internet of Things and smart applications,
- Internet of Things architecture,
- Internet of Things interactions,

- Interoperability of IoT systems,
- Intelligent environments based on IoT solutions,
- Intelligent knowledge based architectures,
- Intrusion detection and prevention systems,
- IoT systems reliability, availability and scalability,
- Managerial and business aspects of Internet of Things,
- Methodical approach to architecture development,
- Mobile and sensor networks for IoT systems,
- Multi-agent approaches in IoT systems,
- · Network automation and development,
- On the way to Internet of Everything.
- Real World applications of IoT technology,
- Security aspects of Internet of Things,
- · Social acceptance of IoT systems,
- Specialized applications of IoT services,
- System life-cycle management in IoT environments,
- Usage studies and workload characterization,
- User interaction and cognitive aspects of Internet of Things,
- Wireless communication and networks in IoT systems.

Any other topics strongly related to Internet of Things and related matters are also welcome. Please contact directly session chairs to confirm a suitability of your paper topic.

#### **Important dates**

Submission of papers: May 1, 2017 (Hard deadline)

Notification of acceptance: June 1, 2017 Camera-ready papers: June 15, 2017 Registration & payment: June 15, 2017 Conference date: September 27-29, 2017

### Program Committee (to be extended) - confirmation in progress

Prof. Dr. Ana Almeida, Porto Superior Institute of Engineering, Portugal

Prof. Dr. Jorge Bernardino, Polytechnical Institute of Coimbra, Spain

Prof. Dr. Peter Brida, University of Žilina, Slovakia

Dr. Ivan Dolnak, University of Žilina, Slovakia

Dr. Josef Horalek, University of Hradec Kralove, Czech Republic

Dr. Josef Janitor, Technical University of Kosice, Slovakia

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Prof. Dr. Peter Mikulecký, University of Hradec Kralove, Czech Republic

Dr. Juraj Machaj, University of Žilina, Slovakia

Prof. Marek Penhaker, VSB Technical University of Ostrava, Czech Republic

Prof. Dr. José Salmeron, Universidad Pablo de Olavide of Seville, Spain

Prof. Dr. Eng. Ali Selamat, Universiti Teknologi Malaysia (UTM), UTM Johor Bahru, Malaysia

Dr. Vladimir Sobeslav, University of Hradec Kralove, Czech Republic

Prof. Stylianakis Vassilis, University of Patras, Greece

#### **Submission**

All contributions should be original and not published elsewhere or intended to be published during the review period. Authors are invited to submit their papers electronically in pdf format, through EasyChair. All the special sessions are centralized as tracks in the same conference management system as the regular papers. Therefore, to submit a paper please activate the following link and select the track: *IoT-RC: Special Session on Internet of Things – Its Relations and Consequences.* 

#### https://www.easychair.org/conferences/?conf=iccci2017

Authors are invited to submit original previously unpublished research papers written in English, of up to 10 pages, strictly following the LNCS/LNAI format guidelines. Authors can download the Latex (recommended) or Word templates available at Springer's web site. Submissions not following the format guidelines will be rejected without review. To ensure high quality, all papers will be thoroughly reviewed by the IoT-RC Program Committee. All accepted papers must be presented by one of the authors who must register for the conference and pay the fee. The conference proceedings will be published by Springer in the prestigious series LNCS/LNAI (indexed by ISI CPCI-S, included in ISI Web of Science, EI, ACM Digital Library, dblp, Google Scholar, Scopus, etc.).