



Call for Papers

Energy Efficient Networking Systems and Protocols for WSNs an IoT (E²NSP 2018)

In conjunction, with

The 14th International Wireless Communications & Mobile Computing Conference

St. Raphael Resort & Marina, Limassol, Cyprus, June 25th - 29th, 2018

IWCMC 2018 Website: <http://iwcmc.org/2018/>

Submission Link: <https://edas.info/newPaper.php?c=23637>

Technically sponsored by: IEEE and IEEE Cyprus Section

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Scope:

Wireless Sensor Networks (WSNs) are fundamental building blocks and key technologies for the booming Internet of Things based apps that are having tremendous effects on people and on the way, they live and behave. The Internet of Things-enabled WSNs are usually characterized by the ability of remotely and precisely locating specific sensing elements, interrogating them and controlling them the way it suits the application objectives and goals. This enables innovative deployment models of Internet of Things (IoT) applications, that include ubiquitous, remote, personal health-care monitoring and delivery, indoor/outdoor urban Air Quality mapping and monitoring, Structural health monitoring, and a myriad of smart city applications.

For WSNs, energy and powering have long been the main challenges that hampers autonomous and perpetual operation of such systems. As such power efficiency algorithms,



systems, intelligence and platforms have been and are constantly being investigated and solution pursued and proposed constantly.

Of a particular interest in this domain, are Energy-harvesting Wireless Sensor Networks (EH-WSNs), whether fully autonomous or backed by batteries. The EH-WSNs which are fully powered by environmentally harvested energy constitute the most appealing solutions that strive to meet the target of enabling large scale deployment of WSNs in a “set and forget” scenarios. With these desirable features, which are becoming reality from the industrial side, are emerging challenges to the networking community in proposing networking software, platforms and protocols which are fully context-aware and more importantly, power-aware to ensure synchronized and timely scheduling of the data transmission rounds/cycles in an opportunistic manner considering the residual-energy budgets or the charging capabilities of the different sensing nodes.

This workshop is inviting contributions that fall into this context, whether these are networking platforms, systems or protocols that are energy-efficient, context-aware and supportive of EH-WSNs. The scope of this workshop includes (but is not limited to) the following topics:

- Energy harvesting MAC protocols
- Energy-Harvested WSNs
- Wireless power transfer
- System design and experimentation
- Remotely powered wireless systems solutions
- Power efficiency for wireless, mobile and networks
- Green data communication network architecture
- Power-aware communication protocols and algorithms
- Context-aware communication protocols and algorithms
- Adaptive, dynamic duty cycle management in energy-harvested WSNs
- Cross-layer design techniques for energy-harvested WSNs
- Green MAC protocols and channel assignment
- Cross layer optimization for maximum energy efficiency





- Power-aware, context-aware routing protocols
- Measurements and models for energy consumption of wireless networks
- All security aspects applicable to WSNs, EH-WSNs and IoTs.

Submission Guidelines:

Prospective authors are invited to submit original technical papers—up to 6 pages of length, using the EDAS link <http://edas.info> for possible publication in the IWCMC 2018 Conference Proceedings, which will be submitted to the IEEE Xplore Digital Library. Selected papers will further be considered for possible publication in five special issues in the following Journals. For more information, visit: <http://iwcmc.org/2018/>
Submission Link: <https://edas.info/newPaper.php?c=23637>

- *International Journal of Sensor Networks (IJSNet)*
- *The International Journal of Autonomous and Adaptive Communications Systems (IJAACS)*
- *KSII Transactions on Internet and Information Systems*
- *Peer-to-Peer Networking & Applications*
- *Cyber-Physical Systems journal*

There will also be best paper awards, one best symposium award, and one best Workshop award.

Tentative Schedule:

Submission: January 10, 2018
Acceptance notification: March 30, 2018
Camera-ready paper submissions: April 30, 2018
Registration deadline for authors: May 10, 2018

TPC Members:

- Karl Anderson, Luleå University of Technology, Sweden
 - Mahmoud Meribout, Petroleum Institute, Abu Dhabi, UAE
 - Emad Eldin Mohamed, Canadian University Dubai, UAE
 - Anis Koubaa, Prince Sultan University, Saudi Arabia
 - Driss Guerchi, Canadian University Dubai, UAE
 - Chuan Heng Foh, University of Surrey, UK
 - Sherif Moussa, Canadian University Dubai, UAE
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- Gerhard-Wilhelm Weber, Middle East Technical University, Turkey
- Mohamed Aissa, University of Nizwa, Oman
- Anis Zarrad, Prince Sultan University, Saudi Arabia
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