Call for Papers

4th Workshop on: Energy Efficient Networking for IoT

(E²N-IoT 2020)

In conjunction, with

The 16th International Wireless Communications & Mobile Computing Conference

St. Raphael Resort, Limassol, Cyprus - June 15 - 19, 2020

IWCMC 2018 Website: http://iwcmc.org/2020/
Submission Link: https://edas.info/newPaper.php?c=26487&track=98184

Technically sponsored by: IEEE and IEEE Lebanon Section

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Scope:

- Wireless Sensor Networks (WSNs) are fundamental building blocks and key technologies for the booming Internet of Things (IoT) based apps that are having tremendous effects on citizens of smart city. The Internet of Things-enabled WSNs
are usually characterized by the ability of remotely and precisely locating specific sensing elements, interrogating them and controlling the way it suits the application. This enables innovative deployment models of IoT applications, however, energy efficiency still a big issue in this environment. 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 “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.

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 or AI/ML assisted methods for enhancing power efficiency in IoT Systems. The scope of this workshop includes (but not limited to) the following topics:

- Deep reinforcement learning driven energy-efficient networks and services in IoT.
- Deep reinforcement learning driven energy-efficient networks for smart cities.
- Energy harvesting and power management in wireless networks using deep reinforcement learning.
- Energy harvesting MAC protocols
- 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
• 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 2019 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 IWCMC 2018 Website: http://iwcmc.org/2020/.
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Selected papers will be further considered for possible publication in five special issues in the following Journals:
• Wiley Journal of Wireless Communications and Mobile Computing (WCMC)
• The 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

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

Important Dates:
Submission: February 10th, 2020
Acceptance notification: March 30, 2020
Camera-ready paper submissions: April 30, 2020

TPC Members:
Karl Anderson, Luleå University of Technology, Sweden
Mahmoud Meribout, Petroleum Institute, Abu Dhabi, UAE
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