

Special Session

« **COmmunication solutions for IoT and E-health applications and systems – COIoTTE** »

For

IEEE IEMCON 2018 - The 9th IEEE Annual Information Technology, Electronics & Mobile Communication Conference 1-3 November, 2018 - Vancouver, BC <http://ieee-iemcon.org/>

Chair :

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Scope :

The key of the success of the complex networks is the evolution of existing wireless and microelectronics technologies. These networks being more complex are formed by a multitude of intelligent devices and equipment, often designated by a more generic word which is the “object”. This word designates both simple devices (such as sensors, cameras, watches, etc.), but also more complex and intelligent equipment (such as robots, vehicles, etc.). The interconnection of these objects with advanced processing capabilities increases their exploitation in many fields such as e-health, connected cars, connected homes, the Industrial Internet, etc.

There are many challenges to which we are facing in order to better satisfy the requests and the requirements of applications and their services. One challenge is the adaptation of existing communication protocols to the physical and logical characteristics of both complex networks and their components. Most of the constraints to be considered in this adaptation process are specific to the wireless environment used. All these constraints affect the reliability of data, their acquisition and transmission in real time. These tasks are usually associated with three important levels of communication : access to the medium, routing and transport and this through the various mechanisms specific to each one of these levels.

This special session focuses on three main research areas for the e-health applications exploiting the new generation of networks mainly IoT. The first area leads to the purpose of scalable communications architectures and protocols for e-health applications using IoT. The second area deals to the designing and the development of self-reconfiguration and self-reorganization algorithms for these networks and applications. Finally, the third area concerns the purpose of intelligent and secure algorithms for IoT and e-health applications and the exploitation of new optimization techniques. Topics of interest include, but are not limited to:

- Communication algorithms and protocols oriented IoT and e-health applications
- Performance analysis and optimization of different communications solutions for Iot and e-health applications
- Distributed and embedded communication architectures for IoT and e-health applications

- Channel allocation algorithms, access control and detection losses techniques for IoT and e-health data
- Bio-inspired and based datamining approaches for efficient communications with IoT and e-health environments
- Transport and routing techniques supporting QoS and QoE for e-health applications
- Energy saving and power control protocols for IoT and e-health applications
- Low-power physique layer solutions for IoT and e-health environments
- Efficient communications oriented medical and e-health services
- Intelligent management of IoT networks and systems resources
- Exploitation of optimization and mathematical approaches for efficient communication for IoT and e-health applications
- Communications between detecting, monitoring and supervising systems for IoT and e-health environments
- Experimental results and futurs standards

Paper Categories :

Regular Paper – 7 pages maximum (3 additional pages allowed but at an extra charge)

Short Paper (Work-in-Progress) – 6 pages maximum (2 additional pages allowed but at an extra charge)

Poster – 5 pages maximum

Regular papers should present novel perspectives within the general scope of the conference.

Short papers (Workin-Progress) are an opportunity to present preliminary or interim results.

Posters are intended for ongoing research projects, concrete realizations, or industrial applications/projects presentations.

Paper Submission Info :

IEEE IEMCON uses EDAS for submission.

Authors need to:

1. Create an account (if not already registered) with EDAS at <http://edas.info>
2. Submission link: <https://edas.info/newPaper.php?c=24576&track=92084>

Important Dates :

Full Paper Submission: 2nd September 2018

Acceptance Notification: 17th September 2018

Final Paper Submission: 25th September 2018

Presentation Submission: 20th October 2018

Conference: 1st- 3rd November 2018

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