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**The International Multi-Conference on
Systems, Signals and Devices**

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**Special Session
On
Energy Harvesting Technologies & Industrial
Internet of Things**

Organized by

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Call for Papers for Special Session

Industrial Internet of Things (IIoT) and its pervasive evolution have significantly revolutionized industrial environments in many application areas such as predictive maintenance, industry automation agriculture and medicine. IIoT, which represents the fourth industrial revolution (Industry 4.0) requires massive diffusion of sensor networks and the necessity to replace batteries by adopting energy harvesting solutions to reduce drastically installation and maintenance costs.

The integration of energy harvesting solution together with the IIoT represents an appealing challenge for both the academic and the industrial research communities, aiming to enhance the performance and the gains in terms of reliability, flexibility and efficiency. Recent improvements have revealed interesting possibilities to drive advances in energy harvesting systems including new challenges such as nonlinear dynamics, control, materials, energy management and storage. For energy aware sensor systems, IoT solutions are still facing several challenges including low power communications, energy efficiency, system architecture, security, test and evaluation.

This special session focuses on the innovative developments, technologies, and challenges related to energy harvesting systems and IIoT including modelling, design and practical use cases and detailed real-world deployment toward gaining new insights.

Topics of interest include, but are not limited to:

- Energy harvesting sensor systems
- Energy harvesting for the IIoT
- Industrial sensor systems using energy harvesting
- Modelling of energy harvesting transducers
- Design and optimization of energy harvesting components and systems

- Energy management in energy aware sensor systems
- Low-energy systems and system design
- Power saving methods and energy-efficient techniques
- Energy efficiency and system architecture
- Applications of sensor systems powered by energy harvesting

(Other Pages)

▪ Short biography of the Special session Organizers (photo, name, email, and short Presentation of the organizer)



Dr.-Ing. Slim Naifar received his PhD degree in electrical engineering from Chemnitz University of Technology and mechanical engineering from the National Engineering School of Sfax in 2018. He completed in 2013 his Master's degree in Robotics at the National Engineering School of Sfax, Tunisia in cooperation with Rice University in Texas, USA. He studied mechanical engineering at the National Engineering School of Sfax, Tunisia, from 2009 to 2012, where he specialized in the field of material science and structures. Currently, he is a senior research assistant at the Chair for Measurement and Sensor Technology at Chemnitz University of

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