

IEEE INTERNATIONAL CONFERENCE ON INDUSTRIAL INFORMATICS INDIN'16

18-21 JULY 2016, POITIERS, FRANCE

Special Session on

“Mathematical Modeling for the Design and Analysis of Industrial Wireless Sensor Networks”

organized by

Principal Organizer: Attahiru Alfa (attahiru.alfa@up.ac.za)

Affiliation: Advanced Sensor Networks Group, University of Pretoria

Organizer 1: Gerhard P Hancke Sr. (gerhard.hancke@up.ac.za)

Affiliation: Advanced Sensor Networks Group, University of Pretoria

Organizer 2: John Isaac (SIsaac@csir.co.za)

Affiliation: Advanced Sensor Networks Group, Meraka Institute, CSIR

Call for Papers

Theme: The conceptual design of wireless sensor networks are usually initially based on intuition, but for them to be effective and efficient, mathematical models have to be employed in the end. Decisions as to the placement of sensors, scheduling their sleep/awake mode, static and dynamic routing of the data transmission to the sink nodes, etc. all depend on some form of mathematical models. Such models include optimization, queueing analysis, reliability analysis, to name a few. The aim of this session is to present the state-of-the-art with respect to mathematical models for the design and analysis of wireless sensor networks, the challenges involved and future directions.

Topics of interest include, but are not limited to:

- Mathematical optimization of sensor placements
- Queueing analysis of sensor nodes
- Power allocation schemes for sensor networks
- Routing problems in sensor networks
- Reliability analysis of sensor networks
- Throughput analysis of sensor networks
- Assignment of data processing tasks across the sensor nodes

Submissions Procedure: All the instructions for paper submission are included in the conference website: <http://ieee-indin2016.sciencesconf.org/>.

Deadlines:

Reception of full paper: **1 January, 2016**

Paper acceptance notification: **10 April, 2016**

Camera ready paper reception: **1 May, 2016**