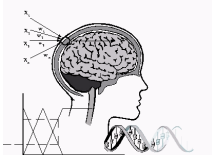
International

Innovation in Knowledge Based and Intelligent Engineering Systems



INVITED SESSION SUMMARY

Title of Session: Intelligent Data Analytics for Internet of Things Environments

Name, Title and Affiliation of Chair:
Dr. Maha Driss, Security Engineering Lab, College of Computer and Information Sciences, Prince Sultan University, Saudi Arabia
Dr. Wadii Boulila, Robotics & Internet-of-Things Lab, College of Computer and Information Sciences Prince Sultan University, Saudi Arabia

Details of Session (including aim and scope):

The adoption of various cutting-edge technologies and communication mechanisms has helped the Internet of Things (IoT) paradigm to gain popularity in recent years. By ensuring the interconnection of a massive number of heterogeneous devices, sensors, and actuators, IoT applications have evolved the Internet to the next level. The IoT's devices can interact with the real world, gather different types of environmental data, and support intelligent decision-making systems by performing various types of data analytics. Data analytics examine massive amounts of heterogeneous data to detect hidden patterns and relationships, identify and comprehend the underlying causes of certain occurrences, and predict useful knowledge and insights. To gain visibility and strengthen cognitive reasoning, intelligent data analytical solutions are proposed to structure and exploit the value of the collected data efficiently. The purpose of this special session is to present the most recent research on IoT data analytics methodologies and approaches in the smart world.

The topics covered in this special session include, but are not limited to:

- Intelligent descriptive data analytics in IoT environments;
- Intelligent predictive data analytics in IoT environments;
- Intelligent prescriptive data analytics in IoT environments;
- Intelligent diagnostic data analytics in IoT environments;
- Big data tools and techniques for IoT environments;
- Machine learning and data analytics for the IoT;
- Deep learning and data analytics for the IoT;
- Data science techniques and smart IoT apps;
- AI-Based Data Security in IoT environments;
- AI-Based Privacy Preserving of IoT Data;
- Knowledge graphs-based analytics of IoT Data;
- Explainable AI for IoT Data;
- etc.

The Invited Session is initiated by the Research and Initiatives Centre (RIC) at Prince Sultan

University, precisely by the Security Engineering Lab (SEL) and the Robotics & Internet-of-Things Lab (RIOTU), but we welcome contributions from other institutions and research groups worldwide.

Main Contributing Researchers / Research Centres (tentative, if known at this stage):

- Security Engineering Lab (SEL), Prince Sultan University;
- Robotics & Internet-of-Things Lab (RIOTU) Prince Sultan University;
- Computer Science Department, College of Computer and Information Sciences, Prince Sultan University.

Website URL of Call for Papers (if any):
Will be created after the acceptance of the invited session

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