

### **IEEE Workshop on**

# Advances and Trends on Deep Learning for Internet of Things (DL-IOT) August 5 – 8, 2019, Fukuoka, Japan

In conjunction with 4th IEEE Cyber Science and Technology Congress (CyberSciTech 2019)

Internet of Things (IoT) is an interconnection of several devices, networks, technologies and human resources to achieve a common goal. In recent years, Deep Learning approaches have emerged as powerful computational models and have shown significant success to deal with a massive amount of data in unsupervised settings. Deep learning is revolutionizing because it offers an effective way of learning representation and allows the system to learn features automatically from data without the need of explicitly designing them. With the emerging technologies on the Internet of Things, wearable devices, cloud computing and data analytics offer the potential of acquiring and processing tremendous amount of data from the physical world. This workshop solicits contributions from the field of IoT Data analytics using deep learning. Topics to be discussed in this workshop include but not are limited to:

- Introduction to Deep learning and IoT
- Recent trends and advances in DL based IoT
- Heterogeneous Big data analytics for edge/fog Computing
- Novel Network Structures and System Design for DL enabled IoT
- Deep Learning architecture for IoT security
- Deep Learning experiments, test-beds and prototyping systems for IoT security•
- Context-Aware Deep Learning based approaches for IoT
- Data confidentiality, Trust and privacy in DL enabled IoT Applications
- Analysis of Network Dynamics in IoT (this belongs to only IoT)
- Authentication and access control for data usage in IoT (this belongs to only IoT)
- Data mining and statistical modelling for the secure IoT
- User Interface design and implementation for DL enabled IoT
- User Interface design and evaluation for DL enabled IoT
- IoT/big data visualization techniques and application of DL
- Activity recognition in a smart home/city using deep learning

## Workshop Organizers

#### **General Chair**

Xiangshi Ren, Kochi University of Technology, Japan, ren.xiangshi@kochi-tech.ac.jp

#### **Program Co-Chairs**

Uttam Ghosh, Vanderbilt University, Nashville, USA, uttam.ghosh@vanderbilt.edu Sayan Sarcar, University of Tsukuba, Japan, sayans@slis.tsukuba.ac.jp Taro Tezuka, University of Tsukuba, Japan, tezuka@slis.tsukuba.ac.jp

#### **Publicity Chair**

Al-Sakib Khan Pathan, Southeast University, Bangladesh, spathan@ieee.org

#### **Important Dates**

Paper Submission Due: April 20, 2019 Acceptance Notification Due: May 25, 2019 Final Manuscript Due: Jun 20, 2019

Workshop Website: <a href="https://sites.google.com/view/ieee-dl-iot/">https://sites.google.com/view/ieee-dl-iot/</a>