

Preface

In recent years, the widespread deployment of wireless sensor networks, industrial cloud, industrial robot, embedded computing, and inexpensive sensors has facilitated industrial Internet of Things (IndustrialIoT) technologies and fostered some emerging applications (e.g., product lifecycle management). IndustrialIoT is the direct motivation and drive for industrial upgrading (e.g., implementing smart factory of Industrie 4.0).

With the support of all kinds of emerging technologies, IndustrialIoT is capable of continuously capturing information from various sensors and intelligent units, securely forwarding all the data to industrial cloud centers, and seamlessly adjusting some important parameters via a closed loop system. Also, IndustrialIoT can effectively detect failures and trigger maintenance processes, autonomously reacting to unexpected changes in production. However, we are still facing some challenges, for example, it is very difficult to capture, semantically analyze, and employ data in a coherent manner from heterogeneous, sensor-enabled devices (e.g., industrial equipment, assembly lines, and transport trucks) owing to the lack of measurement tools, collection protocols, standardized APIs, and security guidelines.

The 2017 International Conference on Industrial IoT Technologies and Applications was held during March 25–26, 2017, in Wuhu, China. The conference is organized by the EAI (European Alliance for Innovation). The aim of the conference is to stimulate interaction among researchers active in the areas of control, communications, industrial robot, industrial cloud, smart sensors and actuators, informatics, mobile computing, and security. All topics are in the context of the IndustrialIoT. The Program Committee received over 40 submissions and each paper was reviewed by at least three expert reviewers. We chose 25 papers after intensive discussions held among the Program Committee members. We appreciate the excellent reviews and lively discussions of the Program Committee members and external reviewers in the review process. This year we chose two prominent invited speakers: Prof. Walid Taha (Halmstad University), and Prof. Ji Zhang (University of Southern Queensland). The abstracts of their talks are included in these proceedings.

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