ICIEA 2022 Special Session

Title of session	Artificial Intelligence for Industrial Internet of Things (IIoT)
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Summary of session	Industrial Internet of Things (IIoT) has attracted much attention in recent years, due to its great potential for improving productivity and reliability of industrial systems. It consists of several key components, e.g., sensors, communication modules, actuators, edge devices, etc. By leveraging intelligent sensing, effective communication, smart monitoring and operation, IIoT builds a complete ecosystem for various industrial applications, such as smart manufacturing, smart building and smart city. With the huge data generated by IIoT, how to effectively gather and analyse the data will play a key role. Artificial intelligence can be an idea candidate with its strong capacity for data analytics. This invited session intends to prompt emerging techniques on artificial intelligence for IIoT applications. Original innovative research papers addressing the following technology areas and their potential applications are invited: - Intelligent Sensing: localization and mapping, navigation, human computer interaction, machine health monitoring, fault diagnosis and prognosis - Advanced Communication: visible light communication, 5G, LoRa, WiFi - Efficient Operation: Block chain, evolutional computing, multi-objective optimization - Edge Computing: model compression, neural network pruning, knowledge distillation - AI algorithms: Transfer learning, self-supervised learning, reinforcement learning, continuous learning, etc.