

2020 International Conference on System Science and Engineering (ICSSE 2020)

(<http://web.ite.mcu.edu.tw/icsse2020/>)

Sunport Hall Takamatsu, Kagawa, Japan, August 31 - September 3, 2020

Workshop on

Smart Manufacturing/Industry 4.0 Systems

Industry 4.0 is regarded as the fourth industrial revolution that has been opening new trends of automation, system sciences and cyber-physical systems, aiming to create "smart factories" where cyber-physical systems monitor physical processes, decentralized controllers monitor and manage the systems, Internet of Things communicates and cooperates with humans in real time via the Internet of Things Services. Having following this world trend has emerged, techniques of intelligent manufacturing, industrial IoT, artificial intelligence, machine learning, deep learning, broad learning, computational intelligence, and intelligent control have been integrated into smart manufacturing/industry 4.0 systems on a variety of scales to meet the needs of implementation at the angle of commercial or industrial products. Smart manufacturing/industry 4.0 core technologies cover four main areas: intelligent manufacturing systems, quality guarantee, manufacturing optimization, and digital twin, each of which has its own special industry issues. Several Smart Manufacturing/Industry 4.0 approaches integrated with numerous deep learning approaches, and many advanced neural networks and fuzzy methods have been shown to gain successful industrial applications, thereby bringing significant impacts on industrial innovations and breakthroughs.

In light of this emerging trend, it is timely important to propose a special workshop, called smart manufacturing/industry 4.0 systems, in ICSSE 2020, in order to promote advanced theory, practices, applications and interdisciplinary aspects of smart manufacturing/industry 4.0 systems. The goal of this special session is to disseminate high quality research results regarding not only the theoretic development in integration of smart manufacturing methods, intelligent devices, core software and intelligent control techniques for industry, but also their applications to real industrial systems. In addition, this session is also aimed to facilitate interactions among researchers and practitioners

Keywords (see list of keywords in the call for papers)

- Intelligent Industrial Control systems
- Intelligent manufacturing technologies
- Quality Control and insurance.
- Industry 4.0 system
- cyber-physical systems with their applications to smart Manufacturing/Industry 4.0
- Intelligent robotic systems for manufacturing and production
- Multi-objective optimization
- Intelligent production scheduling
- Digital twin systems.

Committees:

General Chair:

Jyh-Horng Chou, National Chung Hsing University, Taiwan,

General Co-Chairs:

Ching-Chih Tsai, National Chung Hsing University, Taiwan,

Program Chair:

Yeong-Kang Lai, National Chung Hsing University, Taiwan

Program Co-Chair:

Chia-Feng Juang, National Chung Hsing University, Taiwan

Zingway Pei, National Chung Hsing University, Taiwan.

Important Dates:

Submission Due: April 30, 2020

Notification of Acceptance: May 15, 2020

Final Due: June 1, 2020