



## PROJECT NOTIFICATION

Ref. No.: 21-CP-02-GE-TRC-B-PN2100050-001

<b>Date of Issue</b>	30 June 2021
<b>Project Code</b>	21-CP-02-GE-TRC-B
<b>Title</b>	Training Course on Internet of Things Applications for Smart Manufacturing
<b>Timing and Duration</b>	25–27 August 2021 (three days)
<b>Hosting Country(ies)</b>	Republic of China
<b>Modality</b>	Digital Multicountry
<b>Implementing Organization(s)</b>	China Productivity Center and APO Secretariat
<b>Participating Country(ies)</b>	All Member Countries
<b>Overseas Participants</b>	19
<b>Local Participants</b>	12
<b>Qualifications of Participants</b>	SME executives, representatives of industrial associations, consultants, and productivity practitioners with experience in manufacturing management; and government officials and policy research officers involved in industrial policy and development strategies for the SME and manufacturing sectors
<b>Nomination of Participants</b>	All nominations must be submitted through National Productivity Organizations of member countries
<b>Closing Date for Nominations</b>	6 August 2021

## **1. Objectives**

- a. Develop an understanding of the Internet of Things (IoT) and its applications in manufacturing and digital transformation.
- b. Impart knowledge of digitization in factories and enterprises through interactive hands-on practice.
- c. Disseminate knowledge of the principles, key elements, and fundamental technologies of smart manufacturing.

## **2. Background**

The IoT is a system of interconnected physical devices embedded with sensors, software, and other technologies for the purpose of capturing and transferring data over a network such as the internet. These devices range from machines, computers, and vehicles to home appliances and other ordinary objects in daily life. The deployment of the IoT in manufacturing connects devices and facilities physically and digitally; it also enables management and employees to collect and retain data from entire product life cycles in digital format and real time. These characteristics are the foundation of smart manufacturing, and the IoT is therefore one of the first steps for manufacturers to embark on the Industry 4.0 journey.

With connected devices, exchange of data, and data analytics, seamless communication is enabled among people, processes, and facilities, which helps to optimize operating efficiency in factories, reduce errors, improve safety, and predict needs for maintenance and even market demand. The Asia-Pacific region, as a major manufacturing base for the global market, thus needs to adopt IoT technologies to improve operational performance, production agility and flexibility, and overall productivity, especially during the COVID-19 pandemic when supply chains are disrupted by restrictions on human and product movement. As indicated in international research conducted by Vodafone in late 2020, among the countries in Asia with higher manufacturing capacities and access to technologies, 38% of manufacturers have adopted a certain level of IoT technologies, 82% of which also planned to accelerate IoT deployment because of the pandemic and its effects on business, showing that the benefits of the IoT in manufacturing have been recognized but still need further dissemination in the region.

The APO has conducted various activities to raise awareness of smart manufacturing, assist in the development of Industry 4.0 strategies, and provide technical assistance. This training course aims to impart knowledge of IoT applications in manufacturing and provide interactive practice in configuring IoT devices to enhance understanding of their potential contributions to smart manufacturing.

## **3. Scope, Methodology, and Certificate of Attendance**

The duration of each day's sessions will be around three hours, comprising presentations by experts, group discussions, and other relevant learning methods. The indicative topics of the presentations are:

### **Day 1:**

- The IoT and smart manufacturing: Concepts, key technologies, and basic applications in manufacturing
- Interactive hands-on practice: Configuring IoT devices and connecting them to the internet

### **Day 2:**

- Smart factories: Applications across facilities and product life cycle management
- Interactive hands-on practice: Connecting and collecting information from IoT devices

### **Day 3:**

- IoT applications in manufacturing: Business use cases, challenges, and solutions
- Interactive hands-on practice: Visualizing information for strategy development

The detailed program and list of speakers will be provided two weeks prior to the sessions with announcement of the names of the selected participants.

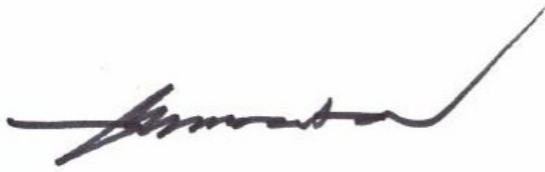
The participants are required to attend all sessions. This full participation is a prerequisite for receiving the APO certificate of attendance.

#### **4. Financial Arrangements**

- a. The APO will meet the assignment costs of overseas resource persons and honorarium for up to two local resource persons.
- b. The host country will meet the costs for a virtual site visit(s), either broadcast live or recorded as applicable.

#### **5. Implementation Procedures**

Please refer to the implementation procedures for APO digital multicountry projects circulated with this document.

A handwritten signature in dark ink, appearing to read 'Dr. AKP Mochtan', with a long, sweeping flourish extending to the right.

Dr. AKP Mochtan  
Secretary-General