



PROJECT NOTIFICATION

Ref. No.: 22-CP-13-GE-TRC-B-PN2200072-001

Date of Issue	25 July 2022
Project Code	22-CP-13-GE-TRC-B
Title	Training Course on Data Analysis for Smart Manufacturing
Timing and Duration	13–16 September 2022 (four days)
Hosting Country(ies)	Republic of China
Modality	Digital Multicountry
Implementing Organization(s)	China Productivity Center and APO Secretariat
Participating Country(ies)	All Member Countries
Overseas Participants	38
Local Participants	12
Qualifications of Participants	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
Nomination of Participants	All nominations must be submitted through National Productivity Organizations of member countries
Closing Date for Nominations	26 August 2022

1. Objectives

- a. Introduce the concepts of data analytics and their connections to smart manufacturing.
- b. Impart fundamental knowledge of data science, related technologies, and their implications for business operations.
- c. Enhance the capabilities of SMEs in using data to improve their productivity and strengthen decision-making processes.

2. Background

Smart manufacturing leverages computer-integrated systems, responds to changing demands and conditions in real time, and converges operating and information technologies to achieve optimization of business, physical, and digital processes. Digitization is usually the first step in smart manufacturing for the purpose of acquiring data and information to understand, monitor, and improve the processes of value creation.

Data analytics involve the collection, organization, analysis, and visualization of data, which enable organizations and individuals to observe patterns, understand situations, make predictions, and drive informed decision-making. With timely information gathered by sensors and communicated through the IoT, data analytics provide real-time visibility of every part of operations and performance. With technologies such as AI and predictive simulations, businesses can anticipate future situations and optimize strategies and actions accordingly.

This training course aims to impart knowledge on the foundations of and tools for data analytics and provide references on related trends and technologies to assist APO members in upgrading their industries 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:

- Data science in manufacturing
- Exercise on data thinking: Identifying and solving problems with data

Day 2:

- AI, machine learning, and deep learning
- Exercise on basic data collection and processing

Day 3:

- Data-driven decision-making and business models
- Exercise on data visualization

Day 4:

- Data analytics in SMEs: Business use cases
- Exercise on applying data analytics for business strategy and decision-making

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 black ink, appearing to read 'Mochtan', with a long, sweeping flourish extending upwards and to the right.

Dr. AKP Mochtan
Secretary-General