



## PROJECT IMPLEMENTATION PLAN

28 June 2018

1. **Project Code** 17-IN-06-GE-DLN-A-08
2. **Title** Self-learning e-Course on Smart Manufacturing: Advanced
3. **Reference** Project Notification 17-IN-06-GE-DLN-A dated 22 December 2016
4. **Timing and Duration** 1 August–31 December 2018 (five months)
5. **Implementing Organizations** APO Secretariat and National Productivity Organizations (NPOs)
6. **Number of Participants** Minimum 400 participants
7. **Self-registration** Self-registration opens from 10:00 AM Japan Standard Time on 1 August 2018 on the eAPO web portal: <http://eAPO-tokyo.org>

Note: Participants can register directly from this portal on the APO website. Those who are already registered can access the course by using the assigned username and password. If you have forgotten your username and password, please refer to the help page on the home page of the portal.

### 8. Objectives

The objective of this course is for participants to acquire advanced knowledge of smart manufacturing within the framework of Industry 4.0. Specifically, at the end of the course, participants will be able to:

- a. explain the advanced concepts of smart manufacturing;
- b. understand the fundamentals of smart manufacturing value including smart business processes and smart solutions;
- c. grasp the changing role of human capital in smart manufacturing; and
- d. understand how to build a business case for implementing smart manufacturing.

### 9. Background

The concept of smart manufacturing is based on the merging of the physical and virtual worlds, which opens up new areas of innovation to optimize the entire sector to create higher-quality products, improve productivity, increase energy efficiency, and sustain safer plant floors. Given the widespread recognition of the value of this system, it is predicted that smart manufacturing will usher in the Fourth Industrial Revolution.

This course is an advanced version of the previous course offered on the introduction to smart manufacturing. It will provide an overview of the smart manufacturing ecosystem; smart manufacturing value realization including ideas on smart business processes, smart solutions, and smart technologies; and the implications for the types of human capital required in future.

The course will also provide a justification plan for implementing smart manufacturing with different examples that address both quantitative and qualitative criteria/indicators.

## **10. Scope and Methodology**

### **Scope**

The course will cover the following modules:

Module 1: Smart Manufacturing Value

Module 2: Smart Business Processes and Smart Solutions

Module 3: Empowered Workers

Module 4: Building a Business Case for Smart Manufacturing

Final Examination

### **Methodology**

Module study, additional study material for participants, intermittent quizzes for self-assessment, and a final examination to qualify for the APO e-certificate for eligible participants.

## **11. Qualifications of Candidates**

The target groups for this course are production or manufacturing floor managers with engineering backgrounds, especially in enterprises planning to introduce smart manufacturing systems, who are seeking an advanced understanding of Industry 4.0.

## **12. Eligibility for e-Certificate**

A minimum score of 70% on the final examination at the end of the course is required to qualify for the APO e-certificate.

Note: Participants from nonmember countries are welcome to take the course for self-development, although APO e-certificates will not be provided.



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Secretary-General