PROJECT NOTIFICATION

Ref. No.: 22-RC-16-GE-DLN-A-PN2200097-001

Date of Issue	30 September 2022
Project Code	22-RC-16-GE-DLN-A
Title	APO e-Course on Data Modeling for Productivity Improvement
Laungh Date	15 February 2023
Hosting Country(ies)	APO Secretariat
Modality	Digital Learning
Implementing Organization(s)	APO Secretariat
Participating Country(ies)	Open
Overseas Participants	Not Applicable
Local Participants	Not Applicable
Qualifications of Participants	Open
Nomination of Participants	Not Applicable
Closing Date for Nominations	Not Applicable

1. Objectives

    a. Introduce key approaches for a thorough understanding of data-driven decision-making.

    b. Explain data-modeling tools and techniques, with examples of decision-making problems using historical data sources.

    c. Illustrate various approaches to strategic decision-making using data-modeling tools and techniques.

2. Background

Data modeling is a technique for identifying and assessing the data requirements for supporting business activities within the context of an organization's relevant information systems. It involves collaboration among data experts and business stakeholders as well as potential information system users. Data models are essential for bringing together all segments of an enterprise, including IT, business analysts, management, and others, to cooperatively design information systems. A well-thought-out, comprehensive data model is the key to the development of functional, useful, secure, accurate databases that ultimately improve the productivity of human resources and thus their organizations.

No organization can ignore the importance of data today, especially when it comes to improving productivity through measurement metrics based on accurate data. Extracting such data in the most efficient way enables data-driven decision-making. Managers' and policymakers' decisions are increasingly based on data-driven models and analyses using various statistical and optimization methods, which have altered the way we do business.

This e-course will explore the fundamental concepts of data modeling to develop systematic frameworks for decision-making in a dynamic, data-driven setting. It will also address how to use historical as well as real-time data to design fundamental models, optimization methods, and tools to help solve decision problems. These methods can increase productivity and efficiency based on traditional as well as cloud-based data-modeling techniques.

3. Modality of Implementation

    a. The course is offered through the APO e-learning platform: https://www.apo-elearning.org

    b. Participants should register on this portal and create their own accounts.

    c. Certificates of completion will be provided for those who satisfactorily complete all the modules of the course, including quizzes and a final examination.

4. Scope and Methodology

The course will comprise five modules:

Introduction

Module 1:
Introduction to data modeling

Module 2:
Data-modeling tools, techniques, and big data

Module 3:
Data-modeling examples and data modeling vs. data analysis

Module 4:
Data analysis and intelligence

Module 5:
Data modeling for productivity improvement and decision-making

Self-assessment quizzes and a final examination

Methodology

Module study, additional study material for participants, quizzes for self-assessment, and a final examination.

5. Requirements

   a. Have necessary devices and software comprising a computer/smartphone, updated browser, microphone, and speaker or headphones.

   b. Access to internet connections.

   c. Completion of all the modules, quizzes, and final examination.

   d. The APO e-certificate will be given to participants who score a minimum of 70% on the final examination.

6. Financial Arrangements

The APO will meet the assignment costs for resource persons to develop the course modules including quizzes and a final examination.

7. Actions by APO Members

   a. Promote the courses nationwide.

   b. Provide the link to the APO e-learning platform on NPOs' websites and social network services.

8. Actions by the APO Secretariat

   a. Identify and assign the resource person(s) to develop the course.

   b. Announce course commencement on the APO website and social network services.

Dr. Indra Pradana Singawinata
Secretary-General