



PROJECT NOTIFICATION

Ref. No.:20-IN-97-GE-TRC-A-PN2000001-003

Date of Issue	19 March 2021
Project Code	20-IN-97-GE-TRC-A
Title	Training Course on Critical Big Data Analytics to Drive Productivity
Timing and Duration	26–28 April 2021 (three days)
Hosting Country(ies)	Thailand
Modality	Digital Multicountry
Implementing Organization(s)	Thailand Productivity Institute and APO Secretariat
Participating Country(ies)	All Member Countries
Overseas Participants	19
Local Participants	12
Qualifications of Participants	Government officials, representatives of government agencies and private-sector enterprises, and National Productivity Organization officers working on data science, big data-related training, and other productivity improvement initiatives driven by data analytics
Nomination of Participants	All nominations must be submitted through National Productivity Organizations of member countries
Closing Date for Nominations	13 April 2021

Notes: This PN supersedes the PN issued on 14 January 2020 and PNR issued on 20 May 2020 due to a change in implementation modality from face-to-face to digital sessions.

1. Objectives

- a. Develop an understanding of the key tools and methodologies in data science and data analytics, including the use of data mining, machine learning, visualization techniques, predictive modeling, and statistics.
- b. Gain hands-on experience in using common statistics programming languages and big data tools, including Excel and Tableau, for problem analysis and decision-making.
- c. Discuss opportunities and challenges in using data analytics to solve real-world productivity problems across various economic sectors (industry, agriculture, services, and public sector).

2. Background

Digital transformation requires knowledge, awareness, sound strategies, technical support, appropriate infrastructure, and champions. It also involves the translation of big data into more efficient processes within factories, enterprises, and public-sector organizations. However, the volume, velocity, variety, veracity, and value (5Vs) of big data mean that data analytics are now more important than ever to condense large volumes of disparate raw data into useful insights to make appropriate decisions. With advances in computing power, data analytics have evolved into highly automated algorithms that yield valuable insights for decision making in enterprises, industries, and governments.

This training course will enable participants to learn essential data analytics skills applicable to the industry, service, agriculture, and public sectors. Understanding the fundamentals of big data analytics, including but not limited to descriptive, predictive, and prescriptive modes, will fundamentally enhance the productivity of enterprises, businesses, and public-sector operations by enabling them to adopt evidence-based decision-making processes driven by data and insights. Decision making throughout the organization will therefore be more informed and better guided.

Many APO member countries have prioritized digital transformation and data analytics as important agenda items in their socioeconomic development plans. Working closely with NPOs, the APO Secretariat conducted the training course on Big Data Analytics for Public-sector Productivity in November 2019. This upcoming training course will expand the sectoral scope. Using actual case studies addressing real-world problems, participants will be exposed to various methods of data analytics using step-by-step processes, tools, and methodologies to enhance productivity in a data-driven world.

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:

Introduction to big data analytics

- The “big question”: Asking the right questions for impactful and high-quality data analytics.
- What are big data and their role in the economy?
- Types of analytics: Descriptive, predictive, and prescriptive analytics.

Data management for various economic sectors

- Data collection, integration, utilization, and querying for various economic sectors.

Day 2:

- Harnessing the power of big data visualization.
- Making sense of graphs and charts for productivity gains.

- Data-driven methodologies and step-by-step processes for better decision-making.
- Hands-on activities: Applications of graphs and charts in decision making to increase productivity.

Day 3:

- What is machine learning and how can it be used for productivity gains?
- Automation with machine learning techniques.
- Types of machine learning algorithms.
- Hands-on activities: Essential applications of machine learning techniques.

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 for overseas resource persons.
- b. The host country will meet the assignment costs of local resource persons and 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.



Dr. AKP Mochtan
Secretary-General

IMPLEMENTATION PROCEDURES FOR APO DIGITAL MULTICOUNTRY PROJECTS (TRAINING COURSES/WORKSHOPS/CONFERENCES)

1. Modality of Implementation

- a. The sessions will be conducted virtually.
- b. The duration of each day's sessions will be around three hours for training courses and workshops.
- c. The duration of the sessions will be around four hours for conferences.
- d. The APO Secretariat will inform the resource persons and participants of the link to the virtual sessions.
- e. The link will be exclusive to resource persons and participants and should not be shared.

2. Requirements of Participants

- a. Competent in connecting to virtual meetings, including independently undertaking troubleshooting in the event of poor or lost connections.
- b. Proficient in English, both written and spoken.
- c. Have necessary devices comprising a computer, web camera, microphone, and speaker or headphones.
- d. Access to internet connections suitable for videoconferencing. Stable, wired LAN connections are preferred.
- e. Follow the instructions of the moderators/presenters in asking questions, joining discussions, and answering questions.
- f. Wear appropriate business attire during the sessions.

3. Actions by Member Countries

- a. Each participating country will nominate three or more candidates in order of preference for training courses and workshops, and five or more candidates for conferences.
- b. All nominations must be endorsed by an APO Director or Alternate Director and submitted by a Liaison Officer or designated officer. Self-nominations will not be accepted.
- c. Nominations should reach the Secretariat before the deadline.
- d. Each nomination must be accompanied by the APO biodata form and uploaded to the APO Document Management System/Fleekdrive by the NPO. The biodata form is available on the APO website.
- e. If a selected participant becomes unable to participate, the NPO concerned should inform the APO Secretariat and the host country promptly.

4. Actions by the APO Secretariat

- a. Selection of candidates will be at the discretion of the Participant Selection Committee of the APO Secretariat.
- b. Selection of candidates will be completed and announced two weeks prior to the start of the sessions.
- c. Slots that become available due to withdrawal of a selected candidate(s) or lack of nominations by a member country may be filled by alternates to be selected on a merit basis.
- d. The APO Secretariat will inform NPOs of the final program and link of the virtual sessions one week prior to commencement.