International Training Programme
on
Data Analytics and Risk Management

(November 20 to December 8, 2023)

Introduction

Governments and organizations across the globe are overloaded with huge repositories of data with important information and knowledge buried in it. They are facing the data explosion problem: drowning in data but starving for knowledge: more data but less understanding. Government officials require understanding or making sense of data. Analytics has become vital for policymakers across departments and ministries and has become a major enabler. The term "analytics" deals with how to obtain, store, analyze, visualize and present data. Improvements in data acquisition technologies and reduction in data storage cost but making sense of collected data and leading to data-driven decisions is the key. The knowledge or insights by data empower policymakers in taking proactive decisions, managing risky projects and effective use of limited resources. This program will equip the participants with the concepts and techniques of data analytics as well as policy applications. The program will also focus on how to use these techniques in practical situations to enhance decision-making.

.**Objectives**

The objectives of the program are to

- To introduce the participants the concepts of data analytics, and its ecosystem for gaining insights for policy and implementation.

- To help participants consider the organization's capability to analyze, and use data for gaining citizens insights.

- To gain an understanding of various techniques for analytics: Descriptive, diagnostic, predictive and visualization techniques for policy planning and implementation risk management

- To get exposure to leading data analytics software such as MS EXCEL, SPSS, ATLAS-TI, and other popular analytics applications

- To appraise the partcipants about technical, financial and environment risk associated with the projects.

Program Coverage

This course primarily discusses concepts of data analytics, the technologies required, its public policy applications and approaches towards guiding government decisions using analytics. *This course does not cover the micro details of mathematics, algorithms, and programming.* This course is designed for policymakers, bureaucrats or executives of any government to make sense of data and to make informed and data-driven decisions.

- Basics of data analytics

- Fundamentals of Big Data Analytics

- Project Risk Framework

- Staregies to Indentify and Manage different types of risks

- Basics of various techniques for analytics: Descriptive, diagnostic, predictive and visualization techniques

- Rraining on data analysis software in lab sessions: SPSS, R, TABLEAU and other popular analytics applications

- Application of techniques such as forecasting, prediction, clustering, association rules, decision tree in different industry sectors.

- Risk Analysis - Dealing with Uncertainty in Projects

- Challenges in Risk Planning and Implementation in Development Projects

- Risk Analysis & Development of Risk Management Framework

- Data Analytics in India Open data Policy and Dashboard approach of policy making by Government Departments, Risk Management in Development Projects like High Speed Train Projects, Sagar Mala, Smart Cities etc.

Target Group

Executives working in Government departments and industry.

Venue & Accommodation

The Programme will be organized at the Indian Institute of Public Administration campus.

Participants get full board and air-conditioned accommodation on the Institute campus.

Faculty:

➢ Dr. Roma Mitra (Coordinator), Associate Professor, E-mail: roma.mitra@gmail.com/ +91-9310338939(m)/+91-11-23468350 (landline)

➢ Dr. Pawan Taneja (Coordinator), Assistant Professor, Email: dr.p.k.taneja@gmail.com/ +919818210463/ +91-11-23468327 (landline)

Mode of Evaluation: Assignment and Presentation by the participants.

Maximum number of seats: 35

Minimum Number of Seats: 25

Educational Qualification: Fluency in English speaking and understanding, Graduation from a reputed university or equivalent with a basic understanding of statistics

Work Experience: Minimum 5 experience in service/manufacturing sector is preferred

Pedagogy:

- Bringing laptop is compulsory requirement for the program
- An amalgamation of pedagogical tools, viz. Cases, lectures, self-reflection sessions discussions, presentations, audio-visuals, and experiential presentations. A typical day will include about four hours of classroom sessions. The participants are expected to devote sufficient time for group work, preparation for classroom discussions and group presentations.
- Hnads on Experience on various software
- Exposure Visit to Various Departments/Project sites in Delhi NCR and nearby cities
- IIPA has an outstanding learning ecosystem that includes diversity among the program participants, faculty, and senior Indian officials present on the campus. A regular visit of the senior leaders from the Government, policymakers, and officials from the industry make a conducive learning environment for the participants.

Minimum Age: 30 years

Maximum Age: 55 years