Management Development Program

On

"Data Analytics using R"

August 09-10, 2019



Program Directors:

Prof. Kakali Kanjilal Prof. Amarnath Mitra



International Management Institute New Delhi 110 016

ABOUT THE PROGRAM

The world of business is facing rapid innovation and change. The traditional function of business management has gone through a wave of transformation with regards of their application and functions. Today, analytics is considered as a key resource in a firm's operational and strategic activities. All leading organizations are rapidly gaining power by leveraging information to gain insights and drive the business. Business analytics provides evaluation of business performance as well as futuristic predictions of firm operations based on extant data and statistical methods.

OBJECTIVE OF THE PROGRAM

The objective of this workshop is to explore basic analytical tools and techniques and gain the requisite knowledge necessary to use R independently, thus helping participants initiate their own process of learning the specific tools needed for their task. This highly interactive workshop is led by experienced faculty as well as practitioners from industry and is designed for industry professionals at any stage of their careers, with analytical bent of mind.

LEARNING OUTCOMES

- ✓ Understand the analytical techniques and use it appropriately for business decision making
- ✓ Familiarity with R environment (R, RStudio)
- ✓ Gain proficiency in all the four types of analytical techniques (Descriptive, Diagnostic, Predictive, & Prescriptive)
- ✓ Learn to Identify: data specific tools, Apply: variety of techniques, Interpret: various software outputs and Write: technical reports

CONTENTS

- I. **Descriptive Analytics Module:** This module will impart lessons on how to prepare, summarize and present a structured and an unstructured data.
 - Data Preparation
 - Data Summary
 - Data Visualization
- II. Diagnostic Analytics Module: The module will focus on
 - Tests of Hypotheses

III. **Predictive Analytics Module:** This module is the practice of extracting and classifying information from existing datasets to determine patterns and predict future outcomes and trends. The module will focus on

- Machine Learning: Artificial Neural Network, Random Forest, Regression, Logistic, Cluster
- Holt-Winter, ARIMA-MSARIMA, ARMAX,
- Panel

IV. **Prescriptive Analytics Module:** Prescriptive analytics can continually take in new data to re-predict and re-prescribe, thus automatically improving prediction accuracy and prescribing better decision options. This module will focus on:

- Prediction Accuracy
- Simulation
- Optimization
- Scenario Analysis

PEDAGOGY

The workshop will be a blend of interactive lectures, case discussions and computer lab sessions using R. Participants are expected to bring their laptops to the class. The lab session will help the participants to demonstrate their learning by solving a business problem applying the most appropriate techniques learnt in the workshop.

WHO SHOULD ATTEND

Executives of Investment Consulting and Brokerage Firms, Mutual Fund Professionals, Relationship Managers, Trading Professionals in Power Trading Companies and Academicians.

FACULTY AND RESOURCE PERSONS

IMI faculty members and eminent resource persons from corporate will share expertise and experience in the various sessions.

PROGRAM DIRECTORS

Prof. Kakali Kanjilal, Professor, Operations and Quantitative Methods

Dr. Kakali Kanjilal, M.Sc (Statistics) and Ph.D (Economics & Finance) is a Professor in the area of Operations and Quantitative Methods, at International Management Institute, New Delhi. She is an associate editor of Global Business Review (GBR), one of the top-rated management journals of Asia. She has almost two decades of industry, teaching and research experience in the domain of applied econometrics & time series models, debt market and credit risk management. She has published many research articles in several international refereed journals of reputed publication house. She has held many training programs in American Express (India) Pvt Ltd. in the area of customer management and authorizations services for the credit card verticals of the company. She can be reached at kakali@imi.edu, 91-47194122 (O).

Prof. Amarnath Mitra, Assistant Professor, Operations and Quantitative Methods

Dr. Amarnath Mitra has more than 8 years of experience in teaching, research and consultancy. Prior to joining IMI Delhi, he worked as Assistant Professor at IBS Hyderabad. He was Research Assistant at Advance Center of Research in High Energy Materials (ACRHEM), Hyderabad and was involved in Govt. of India projects. Dr. Mitra works in the domain of finance and analytics with a focus on areas such as Asset Pricing, Portfolio Management, Market Microstructure, Energy Economics, Environmental Finance and Data Analytics. He has several publications in reputed peer-reviewed international journals. He can be reached at <u>amarnath.mitra@imi.edu</u>, +91-8125596425.

ADMINISTRATIVE DETAILS

Dates: August 09-10, 2019

Venue:

International Management Institute B-10, Qutub Institutional Area New Delhi 110016

FEE

Non-residential – Rs 18,000 per participant (plus GST @ 18%) covering professional fee, programme kit and tea/lunch.

Residential – Rs 25,000 per participant (plus GST @ 18%) covering professional fee, programme kit and boarding and lodging (air-conditioned single room) at IMI Campus, New Delhi from post-noon of **August 08, 2019** till noon of **August 11, 2019**.

Group Discounts –

- 10% discount on fee amount is available in case an organization nominates 2 or more participants to the program.
- 20% discount on fee amount is available in case an organization nominates 4 or more participants to the program.

Fee is payable in advance by way of local cheque/DD in favor of "International Management Institute" payable at New Delhi or through direct electronic fund transfer to IMI Bank Account, as per following details:

Allahabad Bank Account Number: 50084979288 MICR Code: 110010007 IFSC Code: ALLA0211083 Pan No.: AAAT10972K GST No. AAAT10972KIZJ

Please mention the program name while making payment through electronic fund transfer.

REGISTRATION

The registration form duly filled in along with the program fee should reach us at least 7 days before the commencement date of the program. **In case of subsequent withdrawal or cancellation of registration no refund of fee will be allowed.** However, substitute(s) may be permitted with prior intimation.

CERTIFICATE OF PARTICIPATION

The Institute issues a certificate of participation on conclusion of the program.

ABOUT IMI

International Management Institute (IMI) is India's first corporate sponsored Business School founded in 1981 with the original campus in New Delhi. The corporate sponsors included RPG Enterprises (lead sponsor), ITC, Nestle, Tata Chemicals, British Oxygen, SAIL, and Williamson Magor. It was set up in collaboration with the then IMI Geneva, now IMD Lausanne. Subsequently two other campuses were set up in Kolkata (2010) and Bhubaneswar (2011). In the last several years, IMI New Delhi has been consistently ranked in the top 10-15 Business Schools in the country and among the top 5 private Business Schools. It is accredited by the UK based Association of MBAs (AMBA), one of the top three international accreditation bodies for Business Schools globally.

IMI New Delhi has global linkages with leading schools in Europe, North America, and Asia. The Institute currently offers the PGDM, PGDM-HRM, PGDM-Banking & Financial Services, Executive PGDM and FPM (doctoral program). In addition, it has built a vibrant Executive Education vertical offering training to management professionals from the corporate world. The Institute has been empaneled by the Government of India to train participants from developing countries under the International Technical & Economic Corporation (ITEC) program of the Ministry of External Affairs.

IMI New Delhi puts a strong focus on high quality research by its faculty leading to publications in international peer reviewed academic journals. Its faculty have PhDs from top international and national universities/institutes, with many of them also having significant corporate experience.

For registration/any other information, please contact:

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