

**Management Development Programme**  
**on**  
**“Analytics in Operations Management”**

**October 26 – 27, 2018**



**Program Directors:**

**Prof. Harish Rao & Prof. Arnab Deb**



**International Management Institute**  
**New Delhi**

## **INTRODUCTION**

Nowadays, data is abundant in any organization. Data about customers, employees, suppliers or any other entity, is easily available or can be made available in a matter of minutes. Extracting the right information from this data is a challenge and is primarily driven by the needs of the organization. As the markets become more competitive, firms have recognized the importance of leveraging information as a tool to gain competitive advantage.

Research indicates that, of all the various functions in firm, Operations is where substantial savings can be made if information is used productively. Various tools can be employed in different situations to develop key insights and identify areas of improvement.

Analytics can be used in different facets of operations such as evaluating procurement options, inventory management, logistics, last mile delivery, service operations, and quality management and so on.

In this module, we work upwards from the basics to discuss the usage of various operations analytics tools in different domains and gain hands-on expertise

## **OBJECTIVES**

The two-day module on "Analytics in Operations Management" is designed to provide hands-on training on various Operations Analytics tools.

## **CONTENTS**

- Introduction to Operations Analytics
- Basics of Business Forecasting
  - o Comparison of various methods with a case study
- Optimization techniques (Low Uncertainty)
  - o Linear Optimization: Formulation and Solution via Excel
  - o Sensitivity Analysis (Handling low uncertainty in deterministic models)
- Inventory Management
  - o Perishable commodity: Single period inventory models
  - o Multiple period inventory models
  - o Multiple echelon multiple period inventory models
  - o Reviewing impact of inventory management hands-on via case study
- Simulation techniques (high uncertainty)
  - o Understanding probability distributions
  - o Simulating uncertain outcomes in Excel
  - o Hands-on simulation of a highly uncertain situation of a logistics firm
- Decision trees
  - o Basics of Decision Tree
  - o Resolving a decision making case study employing decision trees
- Service operations
  - o Understanding uncertainty in service operations
  - o Basics of Queuing theory

- o Employing queuing theory to resolve decision making issues in case study of service firms
- Advanced Topics in Operational Analytics
  - o Using Simulation with decision trees
  - o Using Optimization along with Decision trees

## **METHODOLOGY**

The methodology would include discussion, demonstration and hands-on experience employing Excel as the primary software. Participants are requested to bring laptops along with them.

## **WHO SHOULD ATTEND**

Industry Practitioners at middle or higher-mid level positions responsible for decision making in their firms regarding optimizing firm resources

## **FACULTY AND RESOURCE PERSONS**

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

## **PROGRAM DIRECTORS**

**Prof. Harish Rao** (Assistant Professor, Operations and Quantitative Methods)

Harish Rao is a Fellow (PhD) from IIM Ahmedabad and is an engineering graduate from Mumbai University. Prior to joining IMI Delhi, he was working as an Assistant Professor at Jindal Global Business School. He has also worked for 5 years with Nuclear Power Corporation of India Limited and was involved in both commissioning as well as operation of the nuclear power reactors at Kaiga, before joining IIM Ahmedabad in pursuit of his doctorate.

His primary research interests include application of operations research tools in industries, infrastructure related project management and agility of supply chains. A few of his publications are in advanced stages of the peer-review process. He is also keenly interested in policy research on SMEs, transport infrastructure, mass-transit systems and e-governance systems.

**Prof. Arnab Deb** (Associate Professor, Economics)

Arnab Deb holds doctorate in Economics from University of Connecticut, Storrs and has received his B.Sc. (Honors) and M.Sc degrees from University of Calcutta. His research interest includes Applied Microeconomics, Industrial Organization, Data Envelopment Analysis, Mathematical Economics, and Applied Econometrics. Prof. Deb has more than nine years of experience in teaching and research. Along with publication in several peer – reviewed research journals he has presented research paper at national as well as international conferences.

## **ADMINISTRATIVE DETAILS**

### **Dates:**

**October 26 -27, 2018**

### **Venue:**

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

### **FEE**

**Non-residential:** Rs. 18,000/- per participant (plus 18% GST as applicable) covering professional fee, program kit and lunch

**Residential:** Rs. 25,000/- per participant (plus 18% GST as applicable) covering professional fee, program kit and boarding/lodging (airconditioned single room) from noon of **October 25, 2018** till noon of **October 28, 2018** at IMI Campus.

### **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**

A certificate of successful participation by International Management Institute (IMI) will be issued to each delegate at the culmination of the program.

## **ABOUT IMI**

IMI International Management Institute Nestled in Qutab Institutional Area, International Management Institute (IMI), New Delhi was established in 1981 in collaboration with IMI Geneva (now IMD Lausanne). IMI's flagship two-year Post-Graduate Diploma in Management (PGDM) program (launched in 1993) has Student Exchange programs with leading International Schools. These include ESC Rennes, France, Montpellier Business School, France, Frankfurt School of Finance and Management, Germany, Grenoble Ecole de Management, France, Louvain School of Management, Belgium, Sichuan Academy of Social Sciences, China, KEDGE Business School, France, University of Guelph, Canada to name a few. Besides its regular PGDM program, IMI New Delhi runs a two-year PGDM program in Human Resource Management (PGDMHRM) launched in 2006, a two-year PGDM program in Banking and Financial Services (PGDM B&FS) launched in 2014, a 15-month Executive PGDM for mid-career executives (Executive PGDM) launched in 1984 and a Fellow Program in Management (FPM) launched in 2011.

In addition, IMI New Delhi also offers ITEC (Indian Technical and Economic Cooperation) Programs, as it is one of the few empanelled Institutes of the Ministry of External Affairs, Government of India. Under the aegis of MEA organised special Commonwealth Assistance Program, 15 international students are selected into the Executive PGDM Program. These ITEC programs are targeted at various developing countries from the Afro-Asian, South American and SAARC region. Another distinguishing feature of IMI Delhi is its strong Alumni network of over 5000+ professionals at senior management levels in leading corporate houses.

All IMI New Delhi's long term programs are approved by AICTE, Ministry of HRD, and Government of India. IMI New Delhi is internationally accredited by Association of MBAs (AMBA), UK. IMI's diverse and experienced resource pool of faculty resources having a rich combination of academic rigor and corporate exposure is one of the institute's distinct strengths. This vast and enriched pool has a special focus on delivering management education, training, research and consultancy. IMI contributes significantly to the growth and development of management as a discipline in India.

IMI conducts a large numbers of Management Development Programs (MDPs) every year, which include Open Programs, specially designed In-company programs and Online programs in different functional areas. These programs are aimed at capability building of senior-level and top-level managers and executives to help them in updating their concepts and enhancing leadership and managerial skills.

IMI's strength across diverse management disciplines, backed by an excellent team of faculty and the strong network with eminent organizations, helps deliver its commitment towards its vision of being a premier global management school.

***For registration/any other information, please contact:***

**Dr. Ekta Saxena, General Manager (MDP & Online Education)  
International Management Institute**

**Address:** B-10, Qutab Institutional Area, Tara Crescent  
New Delhi 110016

**Mobile :** 9911941090

**Phone:** (011) 4719 4172 (Direct), 4719 4100, 4719 4200

**Fax:** (011) 4168 8439

**E-mail:** [ekta.saxena@imi.edu](mailto:ekta.saxena@imi.edu), [mdp@imi.edu](mailto:mdp@imi.edu)

**Website:** [www.imi.edu](http://www.imi.edu)