

Workshop on

Analytics Using R

June 23-24, 2016

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. Nowadays, business analysts are providing critical insights on how to analyze meaningful data and arrive at important policy recommendations.

Business analytics is the collection, measurement, analysis and reporting of data regarding business operations. It involves extensive use of statistical and quantitative analysis, exploratory and predictive models, for purposes of understanding and optimizing businesses and the environments in which it occurs. One can drive business performance by defining, designing, developing, and delivering initiatives that lead to competitive advantage through the optimal usage of input resources. To succeed, however, one needs a solid understanding of

data and analytics. This workshop focuses on basic analytical techniques for analyzing data and arriving at meaningful conclusions.

User-friendly software packages, ranging from the more commonly known ones such as MS Excel to the more advanced ones like R are being extensively used by academicians and business practitioners to facilitate business data analysis. R is a language and environment for statistical computing and graphics that has gained widespread acceptance in industry and academia as the leading analytic software. This is due to the enormous flexibility and free distribution of R. R is extremely powerful and can perform a wide and ever-growing range of analyses and data manipulation tasks. **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 research. This highly interactive workshop is led by experienced faculty and involves firsthand experience working in R.

The workshop is designed for students, researchers, faculty as well as practitioners at any stage of their careers, with analytical bent of mind. The workshop will provide practical exercises, and will include some directed lectures.



CENTRE FOR MANAGEMENT DEVELOPMENT

IBS Hyderabad Campus, Donthanapalli,
Shankarpalli Road, Hyderabad- 501203. Telangana, India.
www.ibsindia.org, www.ibshyderabad.org

Target Audience

- Research Scholars
- Academicians
- Industry Professionals

Learning Objectives

- Understand business research methods and their applications
- Understand the techniques used to link business metrics to performance and decision making
- Learn to identify research designs appropriate for hypothesis testing
- Develop skills in data presentation and technical report writing
- Hands-on training in R

Learning Outcomes

- Gain Familiarity with R environment (R, RStudio, Rcmdr)
- Gain Proficiency in all the four types of analytical techniques (Descriptive, Diagnostic, Predictive, & Prescriptive)
- Gain Knowledge of appropriate analytical tool for a given set of data
- Gain Correct interpretation of the results from various analytical techniques
- Gain Summarization of the finding methods and preparation of managerial report

Venue, Dates & Timings:

Programme Date: June 23-24, 2016
Programme Timings: 09.30 AM to 05.15 PM
Venue: IBS, Donthapalli Campus,
Shankar palli Road,
Hyderabad- 501 203.
Telangana State.

Registration:

- Registration can be done either by email or a letter furnishing the following particulars: Name, Designation, Organization Contact Number and Payment Particulars.
- Registration fee can be paid either on line or by draft.

Topics to be Covered

- **Descriptive Analytics**
 - ♦ Data Description
 - ♦ Data Visualization
- **Diagnostic Analytics**
 - ♦ Testing of Hypotheses (Parametric Data)
 - ♦ Testing of Hypotheses (Non-Parametric Data)
 - ♦ Design of Experiments
 - Random Design
 - Randomized Block Design
 - Factorial Design
- **Predictive Analytics**
 - ♦ Regression (Ratio Data)
 - ♦ Regression with Categorical Variables (Dummy, Logistic)
- **Prescriptive Analytics**
 - ♦ Factor Analysis (Principal Component Analysis)
 - ♦ Cluster Analysis (Hierarchical Clustering, K- Means Clustering)
 - ♦ Multidimensional Scaling
 - ♦ Optimization (LPP, NLP)

Participation Fee:

Rs 9500/- Per Participant

Note: Participation fee includes: Course Material, Professional Fee, Lodging & Boarding Expenses & Taxes.

Early Bird: Participation fee received on or before 31st May, 2016 will be eligible for 10% Discount.

On Line Payment:

Beneficiary's Name: **The ICFAI Foundation for Higher Education**
Bank Branch: HDFC Bank, Banjara Hills, Hyderabad
Current Account No: 05212020001733
IFSC Code: HDFC0000521.

- While making online payment, mention <your name AUR.RF>.
- Example: Amarnath AUR.RF

Off Line Payment:

- DD in favour of **The ICFAI Foundation for Higher Education**, payable at Hyderabad
- Demand Draft / The print out of the fee paid receipt, along with the registration form is to be sent by mail to: smandal@ibsindia.org

Certification

On completion of the programme, The Centre for Management Development, IBS Hyderabad, IFHE University, would award participation certificate.

About IBS Hyderabad

IBS Hyderabad is a constituent of ICFAI Foundation for Higher Education (IFHE), a Deemed University under Section 3 of the UGC Act, 1956. It is accredited by NAAC with 'A' grade, with an impressive score of 3.43 out of 4. It is ranked 2nd in Telangana State and 15th out of 130 NAAC accredited universities in the country. It is rated by CRISIL, A*** at state level and A** at National level. It is rated by ICRA, EB 1 TS at state level and EB 2+ at National level IBS Hyderabad is a member of the "Association to Advance Collegiate Schools of Business USA", "Accreditation Council for Business Schools and Programs USA", "The European Foundation for Management Development Belgium" and "Association of Management Development Institutions in South Asia India". Since its inception in 1995, IBS has grown impressively and achieved widespread recognition from business & industry, academic circles and professional bodies.

IBS offers high quality programs in different areas of management to a cross section of students and executives across India. IBS has a reputation for innovative program design and delivery, quality courseware, personalized instruction, strong industry interface, research, consultancy and publications. IBS Hyderabad has about 150 strong faculty of Management with specializations in Finance Marketing, Strategy and Human Resource Development.

Center for Management Development

The Center for Management Development, at IBS, Hyderabad, is delivering quality services to industry and academia in terms of training and consulting. Our CMD activities include Management Development Programs, Faculty Development Programs and Consultancy in core management areas. The MDPs/FDPs are offered as open or in-company/institute-specific programs. Open programs are for participants from any organization. In-company/institute-specific programs are tailor-made to suit the requirements of specific organizations. Our Programs are conducted as residential or non-residential; at the IBS campus or at a chosen location by the client. We have a strong team of around 150 faculty members with skills in many contemporary areas of management.

Programme Directors



Dr. Santanu Mandal is an Assistant Professor in the Department of Operations and IT at IBS Hyderabad, IFHE University, Hyderabad, India. He has completed his PhD in the field of Supply Chain Risk and Operations Management from IFHE University, Hyderabad in 2015. He has published research papers in journals of international repute such as the Knowledge and Process Management Journal (Wiley), International Journal of Logistics Systems and Management (Inderscience), International Journal of Disaster Resilience in the Built Environment (Emerald), International Journal of Services Operations Management (Inderscience), Journal of Advances in Management Research (Emerald) etc. and has presented papers in national and international conferences. His research interests include quantitative research methods in interdisciplinary research areas involving service supply chains, risk management, healthcare management and sustainable supply chains. He possesses R Programming Certification (with Distinction) from Bloomberg School of Public Health (jointly organized in association with Coursera) and has extensive experience in data analysis and reporting through dominant application packages like Excel, SPSS and SAS. He can be reached at <https://www.linkedin.com/in/santanu-mandal>.



Dr. A.N. Mitra is an Assistant Professor in the Department of Operations and IT at IFHE University, Hyderabad, India.

He holds a Master's degree in Mathematics from NIT Rourkela, and earned his PhD in Finance from IFHE University. Prior to joining IBS, he worked as Research Assistant at ACRHEM, Hyderabad. His research interest is in the areas of mixed method research design, computational finance, econometrics. His teaching area include Quantitative Methods, Business Research Methods, Operations Research.

Senior Instructor



Dr. Sanjay Fuloria is General Manager, Cognizant Technology Solutions.

Sanjay Fuloria, Ph.D., is a Senior Researcher with the business research division of an IT company, where he oversees primary research activities and writes thought leadership white papers based on both primary and secondary research. He also handles research as a service (RaaS) projects. He has worked on development of indices in various industries. He has more than 16 years of industry research experience.

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