

M.Sc. in

Big Data & Business Analytics

One Year in INDIA & ONE Year in GERMANY



Indian Roots - Global Prespectives

WHY ONLY BIG DATA & BUSINESS ANALYTICS?

Data Science and Business Analytics are at the core of every modern globalized industry. Working in today's technology-centric workforce not only requires superior leadership skills, but also the ability to translate data problems into the bigger picture for the organization.

Data Science and Business Analytics are no longer just buzzwords - they are essential business tools. Everyday, 2.5 quintillion bytes of data are created, and International Data Corporation estimates that by 2019 the Big Data Analytics market, just one slice of the larger Data Science and Analytics (DSA) market—will grow to over USD 187 billion.

Big Data and Business Analytics have a great scope of usage across industry verticals globally.

Organisations using Big data and Business Analytics for their data driven decision making are more productive and profitable than their competitors.



Don Bosco School of Management, Bangalore offers M.Sc. program, a 2 year learning journey into the world of Big Data and Business analytics. The program leverages 4 semesters, two in India and two at FOM University of Applied Sciences for Economics and Management, at Essen Campus, Germany.

The program provides candidates with domain specific knowledge regarding data science and business analytics through data-driven decision-making. FOM Faculty equipped with both cutting-edge research and industry experience, provide a unique combination of theory and practice to help accelerate the career growth and the data driven performance of organizations.

OPPORTUNITIES IN DATA AND ANALYTICS DOMAIN?

A huge and ever growing repository of data is generated from modern information systems and digital technologies such as Internet of Things and cloud computing on a daily basis. Analysis of these massive data from different sources requires a lot of efforts at multiple levels to extract knowledge for decision making. Therefore, big data analysis is an upcoming and growing area of research and development, which is in huge demand. There are plethora of unexplored possibilities of using Big Data across different domains, post identification of the various key pain areas. By analysing the data with the correct tools and methodology, solution to different business related problems can be derived.

Hence, new avenues and job roles are being created across Industries, across varied sectors with specialised competency, which has a priority demand and relevance to business efficiency and profitability.

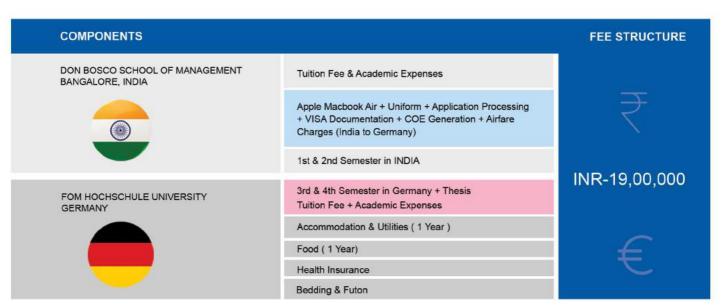
INDUSTRIES IN NEED OF DATA ANALYTICS SKILLED RESOURCES:



DREAM JOB IN GERMANY ?

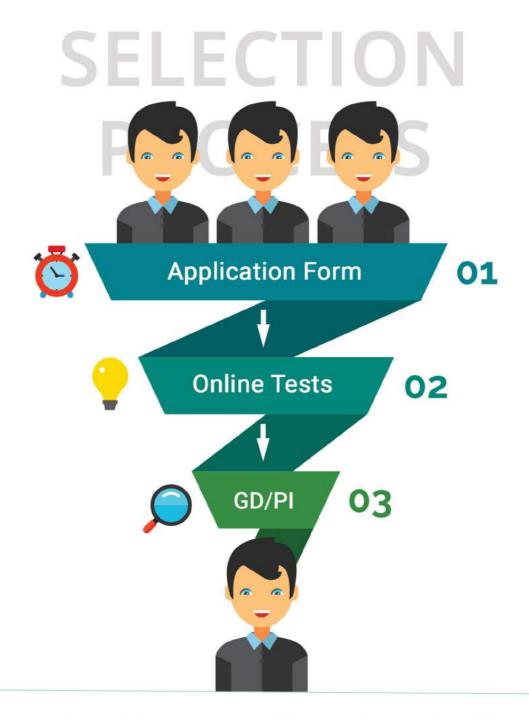


FEE STRUCTURE



* Fees once paid would not be refunded.

ADMISSION PROCESS



Students are assessed as per their academic accomplishments and co-curricular activities.

For a career in IT industry, students are required to have excellent communication skills along with high competency in aptitude, logical solving abilities, ease with handling numbers etc which is mandate for securing admission in DBSOM.

The aspirants need to go through the following process before his admission confirmation at DBSOM

- 1. Online tests
- 2. Group Discussion round
- 3. Presentation round
- 4. Personal Interview

The student would be required to submit their 10th, 12th and graduation marks cards before the online tests.

ACADEMIC YEAR



PROGRAMME ELIGIBILITY

Bachelor's degree in Science, Commerce from any recognised University.



Should have studied Mathematics or Statistics as a subject during their graduation and should have inclination for number crunching.



Arts graduates are not eligible for this programme.



WHY FOM UNIVERSITY?

Founded in 1993 by business associations, the state-approved non-profit FOM University has 29 Higher education centers in Germany. As a practice-oriented university for working people, the FOM promotes the transfer of knowledge between College and business. All courses offered by the FOM are tailored to the needs of professionals and trainees.

The high acceptance of the FOM is visible not only with public universities, but also with numerous cooperations with regional medium-sized companies as well as international corporations. FOM graduates have solid professional skills as well as outstanding social skills and are therefore very motivated by the economy desires.

ACCREDITATION



System accreditation by the FIBBA



Institutional accreditation by the Science Council



The accreditation procedure is conducted by the evaluation committee for courses of study (EKS) as an external body



System accreditation

WHY DBSOM?

Don Bosco School of Management (DBSOM) is one of the leading Management B-School in India, governed and managed by the pioneers in the field of management education.

The institute has its own state of the art. Infrastructure and has provided everything that a management student would need in his journey for a successful education and career.

Located in the heart of the city, it boasts of good connectivity making travelling easier by public and private transport.

Don Bosco School of Management (DBSOM) is a knowledge centre equipped with all the necessary e-tools, high speed wi-fi access, hygienic & organic canteen where students can access educational material from anywhere within the campus.

18 years of academic excellence
Highly committed and qualified faculty members
Presence of Centre of Excellence and Knowledge Center
100% placement assistance
Certification programs
Healthy & Hygienic accommodation for students

KEY FEATURES



Students would be given Macbook Air at the beginning of the first year of the course.

Hassle free loan approval for all eligible candidates, with low-cost EMIs.





Smart classes and wi-fi enabled campus

Curriculum taught by faculty with international corporate experiance.





Travel expenses such as, Flight charges from bangalore to FOM Campus, VISA charges & Insurance premium are covered in the fee payable.

Additional certifications and value added courses.



PROGRAM STRUCTURE

Duration: (1 & 2 Semesters) in India and (3 & 4 Semesters) in Germany + Thesis

Big Data Architecture & Infrastructure (Semester I): Credit Points: 5

Enterprise Architecture Management (EAM)
Technological requirements for Big Data
Vital infrastructures for data-driven business models
Complex processing by continuing
Data Categories



Decision focussed management (Semester I): Credit Points: 6

Classical Decision Making Management decisions from psychological view Decisions in the strategy context

Leadership and Sustainability (Semester I): Credit Points: 6

Leadership as part of the normative, strategic and operational business management and in context of diversity management

Leadership styles, techniques and instruments Ethics and sustainability

Big Data Analytics (Semester I): Credit Points: 6

Data sources and data categorization
Visual Analytics / Data Discovery / Exploratory data analysis
Al methods such as machine learning
Computational Intelligence: fuzzy logic, neural
Networks, Evolutionary Algorithms

Information Security (Semester I): Credit Points: 6

Foundations: Security mindsets, Essential concepts

Software Security: Vulnerabilies & protections, Malware, Pragram Analysis

Practical Cryptography: Encryption Authentication, Hashing, Symmetric and Asymmetric

Cryptography

Networks: Wired and Wireless Network protocols, attacks and counter measures

PROGRAM STRUCTURE

Applied programming (Semester II) : Credit Points: 6

Basics and application of Programming languages for Big data: SQL, R and Python

Languages & tools for data management

Data integration

ETL vs. ELT (Data Lake)

Analysis of semi- & unstructured data (Semester II) : Credit Points: 5

Crawling and preprocessing
Text Mining / Web Mining
Social media analysis
Ontologies
Semantic and graphic
Modeling / technologies



Project Management of big data projects (Semester II) : Credit Points: 5

Planning, controlling & controlling Big Data projects

Challenges, Special Features & Success factors in the management of Big Data projects Architectural and technological features

Introduction of big data applications

Integration and harmonization of data sources and planning of data analysis and reporting

Area of Application : Business Analytics (Semester II) : Credit Points: 5

Goals and responsibilities for Big Data applications

Sector and type of data sources

Application of procedures such as association analysis, Decision tree procedure, neural networks, cluster analysis

Ethics & Law (Semester II) Credit Points: 5

Ethical aspects of using big data Legal aspects of big data usage Compliance

Deutsch (Semester II) Credit Points: 6

PROGRAM STRUCTURE

Big Data Consulting Project (Semester III) : Credit Points: 6

Selection of an application field for the analysis project
Data storytelling
Addressing a management question
Data acquisition, processing, & analysis
Preparation of the insights for the management



Research Methods (Semester III) : Credit Points: 5

Foundation of research and Scientific Methods, Understaning the language of Research Problem identification and formulation, Hypothesis, Hypothesis Testing, Logic and Importance Research Design: Features of a good research design, exploratory & Discriptive research designs Qualitative and Quantitative Research

Data Analysis: Data Preparation, Analysis and Testing

Interpretation of Data

Use of Tools/Techniques for Research

Big Data Analysis Project (Semester III) : Credit Points: 6

Selection of an application field for the analysis project Project work with first completely own data analysis

Strategic business model development (Semester III) : Credit Points: 5

Foundation of Business Strategy, Role of Tasks of a Strategy Manager
Formulating a strategy and its implementation
Tools and Techniques for Situational Analysis
Methods for implementing a good business judgement and making sound decisions
Results of big data analysis as a driver for the Business Model Development
Planning the Big Data strategy / business analytics strategy
Strategic approaches and strategic planning and management tools
Data-based business models and business transformation
Open Innovation / Innovation Management

Applied Project (Semester III)
Credit Points: 6

Master-Thesis, Colloquium (Semester IV)
Credit Points: 25

Applied Project (Semester IV)
Credit Points: 6



Arun Prasad

Mechanical Engineer, 6 Sigma Black Belt

Arun has over 28 years of experience in Management Consulting & Business Analytics and 18 years of experience in Solutioning, Architecting and Delivery of large Business Analytics projects. He's had a rich experience of developing 13 technology products. Having hands on experience in Cloud computing, Internet of Things, Big data management and also as a Visiting scientist at Indian Statistical Institute and visiting faculty in various B schools in Bangalore, India. Arun has international experience across the Globe.



Venkat Koteswar Rao

Bachelor of Science in Physics, Master of Engineering in Instrumentation, Executive General Management Program, Japanese Language Proficiency Level-3

Bachelor of Science in Physics, Master of Engineering in Instrumentation, Executive General Management Program, Japanese Language Proficiency Level-3

Venkat Koteshwar Rao is an Experienced Information Technology Professional with over 25 years of experience in leadership, training, digital technologies, product engineering, and project management. Strong background including but not limited to team building, Industrial Internet of Things (IIoT), Industrial Automation, offshore account transitioning, Service Delivery, quality and risk control, digital security measures and process improvement.



Giridharan Srinivasan

Electronics Engineer, International Services Marketing - Yonsei University, South Korea, Sales Strategies - The University of Chicago Booth School of Business

Giridharan Srinivasan is an Experienced Information Technology Professional with over 25 years of experience in Customer acquisition, Solutioning, Practice & COE management. Having international experience and having more than 10 years of mentoring and teaching experience across various B-schools in Bangalore, he brings in his experience and knowledge to impart to current business requirements.



Madhavan S. Varadachari

M.Sc. - Statistics, MBA - Finance, LA - ISO 9001, ACET - IAI

Over 21 years of experience in the field of Supply chain & Finance,he's been Teaching and mentoring students in Business Schools in Business Mathematics & Statistics, Operations Research, Operations Management & Financial Derivatives. Have been providing advisory services in Marketing, Raw Material Management, Planning, Quality Management Systems, Training & Development.



Sudheendra Rao K

Bio Technology Engineer, PGD in Bioinformatics

He's an Expert data scientist, dynamic trainer with 9+ years of industry experience in analytics and machine learning that reflects the skill to educate and facilitate resourceful business strategies. Experienced Classroom and Corporate Trainer.

Experience in Data Science and Machine Learning Algorithms, Python & R Programming Languages, Deep Learning, Natural Language Processing.



Raghavendra H.M

Masters in Thermal Science & Mechanical Engineer

Data scientist and an ardent trainer with 3 years of industry experience in power generation sector, a year of research on optimization of cooling technologies for hypersonic flight aero engines and 2+ years of experience in training on Machine Learning that reflects the skill to educate and facilitate academia and corporate.



Srinath Bhupala Rao

Electrical & Electronics Engineer

Has over 25 years of strategy and management consulting experience. Supply Chain Management expertise in sales, pre-sales and solution positioning processes at global manufacturers to deliver large Multi-Million-dollar global business transformation engagement in the Global Transportation, Freight Management & Supply Chain Visibility process areas.



Prof. Dr. Guy Katz

Professor Guy Katz has been a full-time lecturer at the FOM in Munich since 2013 and was appointed as Professor of International Management & Leadership in March.

After his military service as a senior lieutenant of the IDF, Professor Katz earned his doctorate at the Ludwig-Maximilians-University Munich on "Intercultural negotiations". After completing his doctorate, Katz worked in the automotive alliance sector.

Parallel to his work as a professor, Prof. Katz contributed to topics related to strategy and internationalization.



Prof. Friederike Müller-Friemauth

Professor Friederike Müller-Friemauth has been a full-time lecturer at the FOM in Cologne since September 2014. In the same year she was appointed as Professor of General Business Administration, in particular Strategic Marketing and Innovation Management.

She studied political science at the Freie Universität of Berlin and received her doctorate in 1995 on liberal time diagnostics (Rorty, Foucault). Following her doctorate, she held various strategic marketing positions. She spent several years in the Corporate Foresight of Daimler AG, then headed the marketing department of the rheinländischen Mittelstadt Leverkusen and then the trend research at the Heidelberg market and social research institute Sinus Sociovision.

Her teaching focuses on organizational development, innovation management and behavioral finance.

At the KCT Competence Center for Technology & Innovation Management, she represents the field of futurology. Parallel to her work as a professor, she is co-owner of "kühn denken auf Vorrat", a concept consultancy for applied economic futurology.



Prof. Buchkremer

Professor Buchkremer has been a full-time lecturer at the FOM Hochschule since 2009.

He studied at the Ruhr University in Bochum and earned his doctorate at the State University of New York, USA.

Rüdiger Buchkremer is a member of the FOM Appointment Commission and is responsible for the modules "Artificial Intelligence" and "Electronic Business". He also supervises dissertations at the UCAM-FOM Business School of Management in Murcia / Spain and is the deputy director of ifid institute for IT management and digitalization.

Furthermore he owns a business consultancy specializing on marketing, artificial intelligence and big data. Previously, he spent ten years in the healthcare industry, most recently as the CIO of a DAX company.



Prof. Dr. Ing. Cornelia Heinisch

Professor Dr. Ing. Cornelia Heinisch has been a full-time lecturer at the FOM in Stuttgart since 2012. In July 2012 she was appointed as Professor of Business Informatics.

After completing her traineeship as an electrical engineering assistant at the electronics school in Tettnang, she studied software engineering in Esslingen and "Distributed Computing Systems Engineering" at Brunel University in West London.

Subsequently, she completed her doctorate at the University of Tübingen on the subject: "Configuration Model and Architecture for Automated SW Update of ECUs in the Automobile" as part of an industry promotion in cooperation with the companies IT-Designers and Daimler.

Ms. Prof. Heinisch worked as a managing director for the company IT-Designers from 2001 to 2010 and gained practical experience as a developer, system architect and consultant in the areas of research, advanced development, development and production.



Prof. Roger W.H. Bons

Professor Roger W.H. Bons has been a full-time lecturer at the FOM in Aachen since September 2015. In November 2015, he was appointed Professor of Business Informatics.

Prof. Dr. Bons studied Computer Science at Eindhoven University of Technology. After completing his studies, he worked as a lecturer in business informatics at the Rotterdam School of Management, where he also earned his doctorate in "Designing Trustworthy Trade Procedures for Open Electronic Commerce".

After receiving his doctorate, Prof. Dr. Bons initially worked at Multimedia Skills as Senior Consultant and subsequently at Royal Philips Electronics in senior positions, most recently as Program Director. Prof. Dr. Bons spent several years with ING Group, including Senior Product Manager Cards & Cash.

Parallel to his full-time employment as a professor at the FOM, Prof. Dr. med. Bons is Managing Director of Bons Academic Services.

CAMPUS OVERVIEW

















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