





Certificate Programme in Applied Business Analytics

November, 2024 - March, 2025 5 Months Live-Online







⁶⁶ The world's most valuable resource is no longer oil, but data

— The Economist





In God we trust. All others must bring data.
W. Edwards Deming

66 Data beats emotions. 99 — Sean Rad





Data will talk to you if you're willing to listen

— Jim Bergeson





Programme Overview

The Applied Business Analytics programme is designed to equip participants with the essential skills and knowledge needed to excel in the field of data analytics. Delivered in partnership with Mahindra University and KPMG in India, this programme offers a comprehensive curriculum that covers key aspects of business analytics, including data visualization, predictive modeling, and advanced statistical techniques.

This programme provides a deep dive into the world of business analytics, enabling participants to leverage data for strategic decision-making. Through a blend of theoretical knowledge and practical application, participants will gain expertise in tools such as Tableau and Power BI, and work on real-world datasets to solve complex business problems.

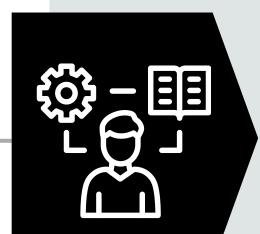
Participants will also benefit from the extensive experience and insights of faculty and industry leaders who have successfully navigated the analytics landscape. The programme's emphasis on live interactions ensures that participants receive personalized guidance, fostering a deeper understanding of the material and its practical applications.

In addition, the programme includes a series of capstone projects and real-world case studies, providing participants with hands-on experience in tackling actual business challenges. This practical approach ensures that graduates are not only knowledgeable but also capable of applying their skills in real-world scenarios, making them highly valuable assets in any organization.

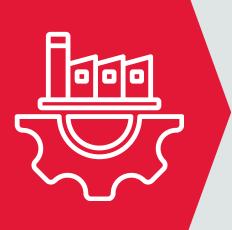
Why BA Programme from MU & KPMG in India?



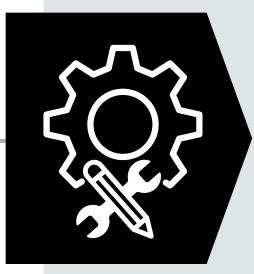
Comprehensive Curriculum: The program covers a broad spectrum of analytics topics, from foundational principles to advanced techniques, ensuring a well-rounded understanding of analytics in various business contexts.



Practical Application: Emphasis on practical applications such as predictive modeling, machine learning, big data analytics, and business intelligence ensures that students can directly apply their learning to real-world scenarios.



Industry Relevance: With topics like big data, business intelligence, and strategic analytics, the program is aligned with current industry trends, preparing students for the evolving demands of the job market.



Skill Development: Students will gain critical skills in data analysis, statistical methods, and decision-making frameworks, which are essential for roles in analytics and data science.



Career Advancement: This program equips students with the knowledge and skills required to advance their careers in analytics, providing a competitive edge in the job market.





Who is this Programme For?

MBA Students: Given the focus on business analytics, this program is well-suited for MBA students looking to specialize in analytics or enhance their data-driven decision-making skills.

Business Professionals: Individuals working in roles related to business strategy, operations, marketing, finance, and supply chain management who want to leverage analytics to improve business outcomes.

Aspiring Data Scientists and Analysts: Those aiming to pursue careers as data scientists, data analysts, or business analysts will find this program beneficial for building a strong foundation and advancing their expertise.

Managers and Executives: Business leaders and managers looking to implement data-driven strategies and improve decision-making within their organizations.

Tech Enthusiasts: Individuals with a technical background who want to transition into the analytics domain or expand their understanding of its application in business.





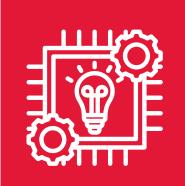


Key Highlights



Live Interactive Sessions with Faculty and Industry Leaders

No pre-recorded videos. Experience real-time learning through live interactions with faculty and industry leaders, ensuring personalized guidance and immediate feedback.



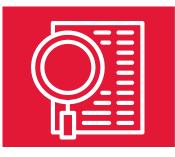
Interactive Live Masterclasses on Advanced Analytics, Machine Learning, and More

Participate in interactive live masterclasses covering cutting-edge topics such as advanced analytics, machine learning, cloud computing, and big data.



Real-world Case Studies & Business Scenarios

Analyze over real-world case studies and business scenarios to gain hands-on experience and practical insights into various industries.



Comprehensive Datasets for In-depth Analysis

Work with comprehensive datasets, offering a wide range of data for in-depth analysis and practical learning.



Assignments, Quizzes, and a Capstone Project

Complete challenging assignments, quizzes, and a comprehensive capstone project to test and demonstrate your analytical skills.



Industry Relevant Analytical Tools and Apps

Utilize cutting-edge analytical tools and apps used in the industry, designed to enhance your learning experience.



Active Discussion Forums

Engage in active discussion forums, fostering collaboration and knowledge-sharing with peers and instructors.





Datasets (Real Data... Real Skills)



Analyze sales data from a major retail chain to identify trends, forecast demand, and optimize inventory levels.

Customer Churn Data

Study customer churn patterns in the telecommunications industry to develop strategies for customer retention.

Financial Transactions Data Examine transaction data from a financial institution to detect fraudulent activities and improve security measures.

Healthcare Patient Data Utilize patient data to identify patterns in health outcomes and enhance the efficiency of healthcare delivery.

E-commerce Clickstream Data

Analyze clickstream data from an ecommerce platform to understand customer behavior and improve user experience

Supply Chain Logistics Data

Investigate logistics data to optimize supply chain operations and reduce delivery times and costs

Social Media Sentiment Data

Examine social media data to gauge public sentiment and inform marketing and communication strategies.

Energy Consumption Data

Analyze energy consumption data to identify areas for efficiency improvements and cost savings

Real Estate Market Data

Study real estate market trends to inform investment strategies and property valuations

Manufacturing Quality Control Data

Utilize data from manufacturing processes to identify defects and improve product quality

OTT Analysis

Optimizing OTT Platforms and optimizing customer experience through strategy-based analytics

Cab Booking Analysis

Analyzing cab booking data for cab booking apps to optimize urban transportation services



Hotel Booking Analysis

Personalizing hotel booking experiences based on customer preferences and historical data analysis.

These datasets will provide participants with practical experience in analyzing diverse types of data, helping them to develop skills that are directly applicable in various industries.





Why We are Different?



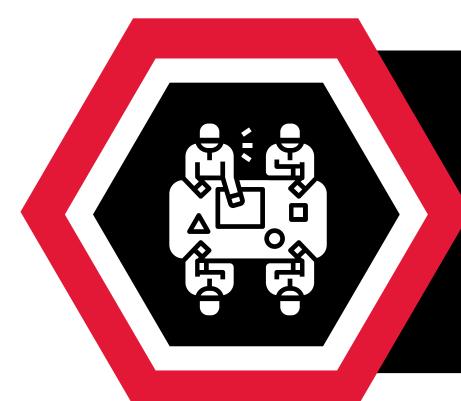
Our programme is a comprehensive 20-week journey featuring 100% live interactions with experienced faculty and leaders who have excelled in their fields.

This programme is designed for individuals who are passionate about exploring, learning, and thriving in the world of analytics.

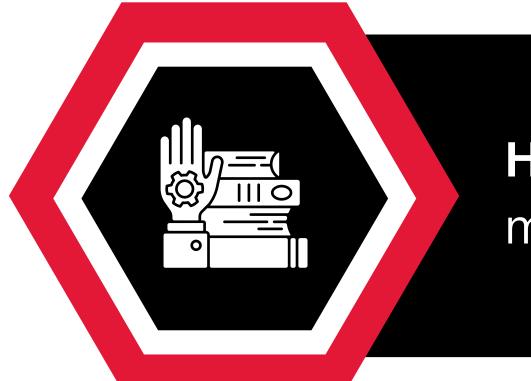




Focus on Tangible Analytics Skills: Unlike others, we are not covering AI, ML, NLP, and all the jargons. We focus on the analytics part of data, ensuring the content is covered in length and depth, providing you with tangible skills that can be immediately applied in your career.



Capstone Projects: Work on real-world business problems.



Hands-on Learning: Use tools like Tableau, Power BI, and more.

Real Data Analysis: Analyze real datasets from various industries

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Case Studies



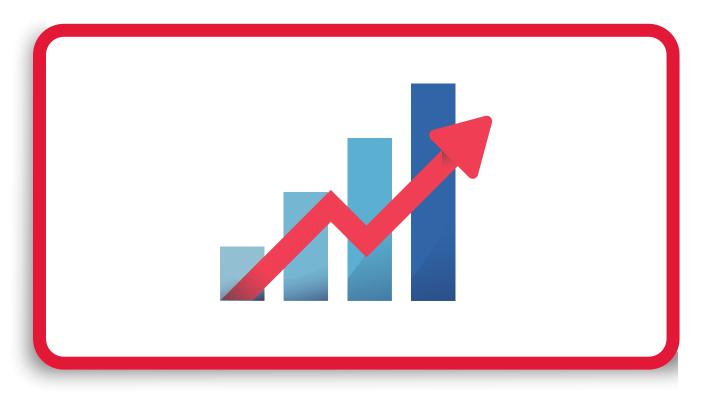




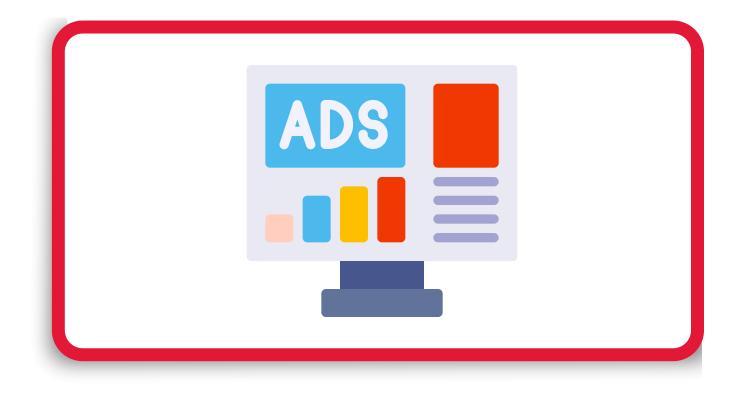
Exploring E-Commerce platform Amazon with Advanced Analytical Techniques Enhancing OTT platforms such as Netflix, Prime Video, HULU using Big Data and Applied analytics Analyzing Uber booking data to optimize urban transportation services.







Analysis of Zomato data to enhance user experience and operational efficiency. Personalizing hotel booking experiences based on customer preferences and historical data analysis Understanding reader preferences and market trends through book rating analysis on "goodreads".







Analyzing marketing campaign performance to refine strategies and maximize ROI Customizing Netflix dashboard to analyze viewer behavior and improve content recommendation

Analyzing Credit Card spend pattern for American Express to identify opportunities for targeted promotions



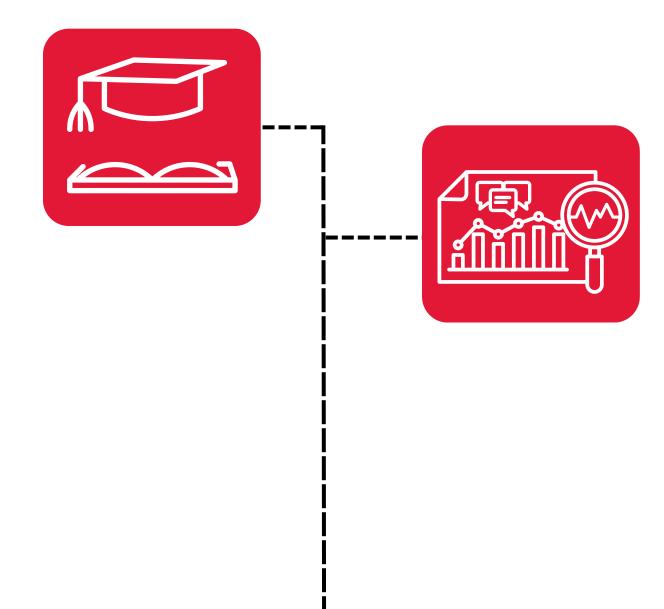


Programme Takeaways

Foundational Knowledge

Understanding the significance of analytics in business, fundamental statistical concepts, and essential tools for data visualization and data-driven storytelling

Advanced Analytical Techniques



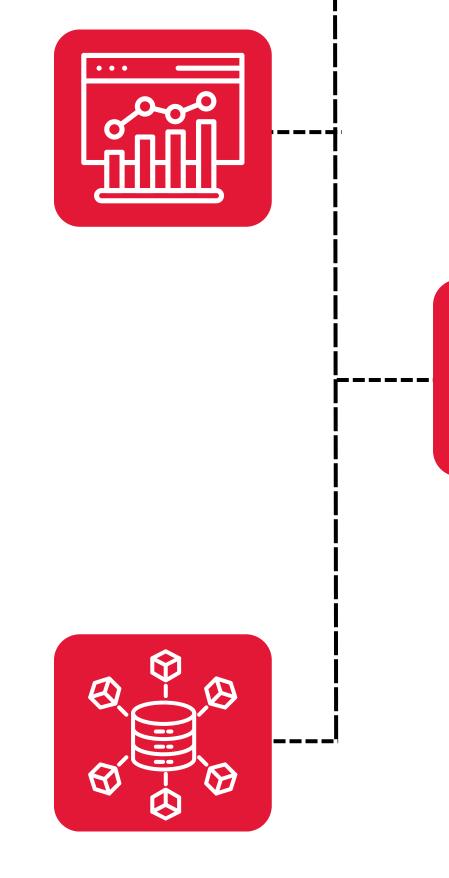
Applied Business Analytics

Ability to apply business intelligence techniques, perform customer and supply chain analytics, conduct risk analysis, and improve business efficiency

Proficiency in predictive modeling, machine learning algorithms, time series analysis, and optimization techniques for resource allocation.

Big Data Expertise

Familiarity with big data concepts, including Hadoop, MapReduce, SQL, nonrelational databases, and distributed computing, enabling efficient management and analysis of large datasets.



through analytics.

Strategic Decision-Making

Knowledge of strategic analytics frameworks, decision support systems, and performance measurement, along with skills to drive continuous process improvement and business transformation using analytics.

Programme Outcomes

- Data Analysis
- Data Visualization and Reporting
- Big Data Analytics
- Strategy Analysis
- Predictive Modelling
- Risk Optimization
- Database Management
- Data Driven Decision Making
- Statistical Modelling

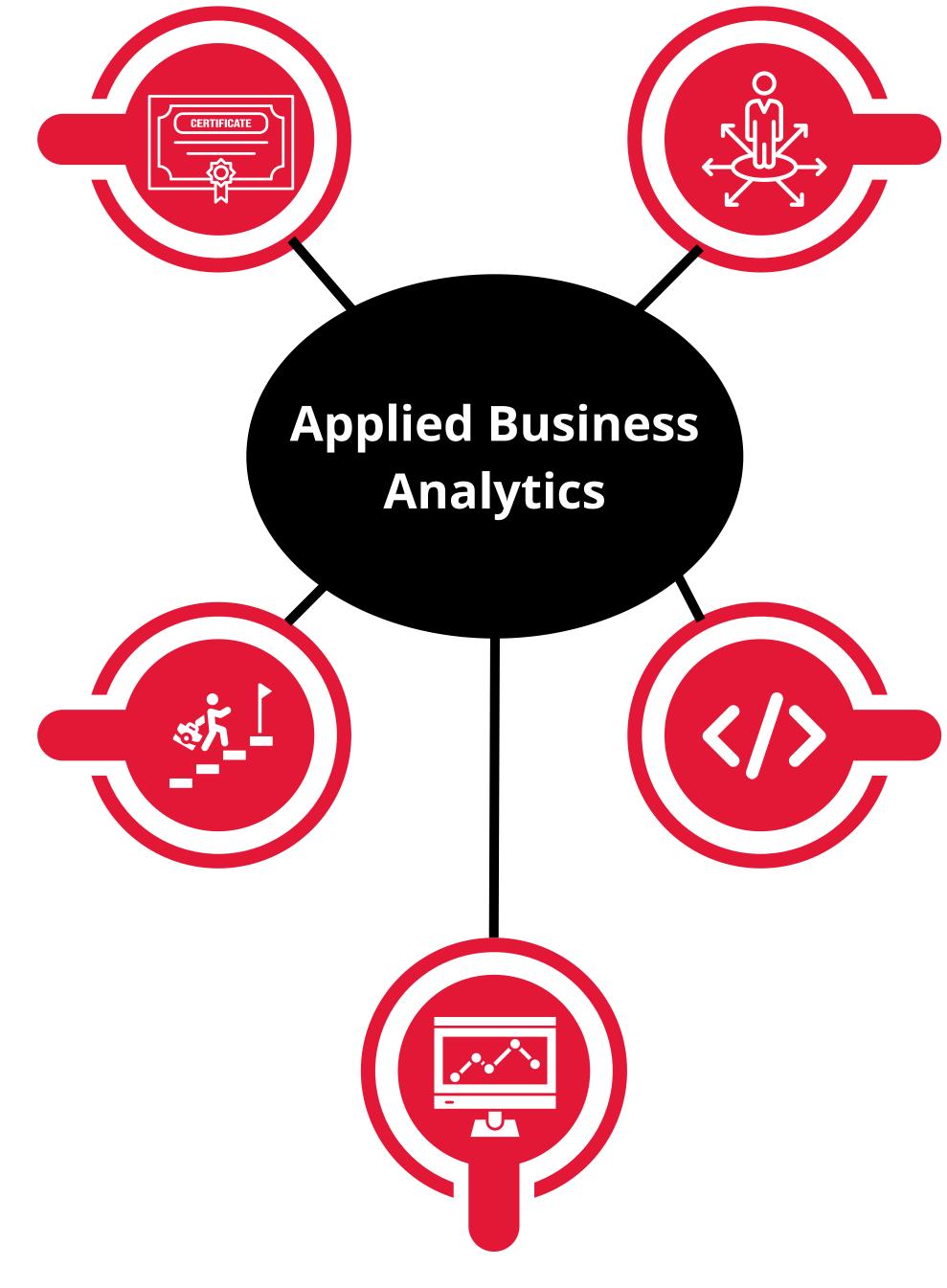
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Programme Benefits

Certificate of Completion

Receive a prestigious certificate from Mahindra University and KPMG in India



Networking Opportunities

Expanding your professional network and opening up new career opportunities.

Career Advancement:

Transition into roles focused on data-driven decision-making and analytics.

No Coding Experience Required

Learn and thrive in the field of business analytics without the need for prior coding experience

Holistic Understanding of

Analytics

Focusing on tangible skills that

can be immediately applied in your career.





Session Plan

The Applied Business Analytics program is a comprehensive 16-week journey designed to equip participants with the essential knowledge and skills required to excel in the field of business analytics. The program is divided into six modules, each focusing on key aspects of analytics and their practical applications in business contexts.

Module 1: Foundation of Analytics (Week 1 & 2)

In the first two weeks, participants will build a strong foundation in analytics. They will learn about the significance of applying analytics in business contexts, statistical fundamentals, data visualization, and data-driven insights gathering. The module also covers storytelling using data, essential for effective communication of analytical findings.

- Introduction to Analytics
- Significance of application of analytics in business contexts
- Statistical fundamentals
- Statistics essentials for data analysis
- Data Visualization

Module 2:

- Data Driven insights gathering
- Storytelling using data

— Advanced Analytical Techniques (Week 3 to 6)

The next three weeks delve into advanced analytical techniques. Participants will explore predictive modeling, including category conversion, feature scaling, and building and evaluating models. They will also learn about algorithms for machine learning and time series analysis, focusing on forecasting future trends and handling missing values.

- Introduction to predictive modeling
- Category conversion
- Features scaling
- Predictive Modelling
- Building and Evaluating Models
- Algorithms for Machine Learning
- Classification of models; model parameters
- Introduction to forecasting and time series data, handling missing values and time series data
- Time series analysis and forecasting future trends
- Introduction to linear optimization
- Optimization techniques for resource allocation





Module 3: **Big Data Analytics (Week 7 to 9)**

In this module, participants will gain a thorough understanding of big data and its characteristics, including various big data formats. The curriculum covers Hadoop and MapReduce, along with basics of Hive and Impala for processing large datasets. Participants will also explore database management using Spark SQL, and delve into Apache Spark, its framework, and RDD optimization, concluding with practical applications of Spark SQL queries in Databricks.

- Introduction to Big Data, Characteristics of Big Data, Big data formats
- Hadoop and Mapreduce overview
- Basics of Hive, Impala, Map reduce overview for processing large datasets
- Introduction to Data bases: Rational Vs. Non-Rational Databases
- Database management using Spark SQL
- Introduction to Apache Spark, Spark and Distributed computing
- RDD optimization, Apache Spark Framework
- Spark SQL query in data bricks

Module 4: **Applied Analytics in Business (Week 10 to 12)**

In module 4, the focus shifts to risk analytics. Participants will gain insights into risk management, including classification and enterprise risk management. They will also explore risk analytics and strategies for mitigating risks through scenario analytics.

- Introduction to Business intelligence
- Component of BI, Business Intelligence techniques
- Customer Analytics, Segmentation and Targeting
- Introduction to supply chain and analytics
- Supply chain analytics: Improving efficiency and reducing costs
- Introduction to risk management
- Classification of risk management, Risk Analytics
- Mitigation of Risk and Scenario Analysis
- Introduction to enterprise risk management





Module 5: Strategic Analytics and Decision Making (Week 13 to 16)

This module covers strategic analytics and decision making over three weeks. Participants will learn about data-driven strategies, strategic analytics frameworks, and decision support systems. They will also focus on performance measurement using analytics-based metrics and continuous process improvement through GAP analysis

- Introduction to data driven strategies
- Strategic Analytics Framework
- Decision Support systems
- Performance Measurement: Implement analytics-based performance metrics to evaluate
 Introduction to GAP analysis, defining project success
- Continuous process improvement and Business transformation using Analytics

Module 6: Capstone Projects (Week 17 to 20)

The final two weeks are dedicated to a capstone project, allowing participants to apply their acquired knowledge in a practical, graded project. This module provides an opportunity for handson experience and mentorship, ensuring participants are well-prepared to implement analytics in real-world scenarios

• Graded application-based project

Summary

The programme integrates theoretical knowledge with practical insights through a blend of selflearning materials and live Virtual Instructor-Led Training (VILT) sessions. This approach covers critical content necessary for success in business analytics, ensuring participants understand and can apply advanced analytical techniques effectively. By the end of the 16 weeks, participants will be well-equipped with the skills needed to apply analytics in various business contexts







McKinsey Global Institute: Big data and analytics are projected to generate \$13 trillion in global economic value by 2030.



IDC: By 2025, it is estimated that 175 zettabytes of data will be generated annually, compared to 33 zettabytes in 2018.



Harvard Business Review: Companies in the top quartile for data-driven decision-making are 5% more productive and 6% more profitable than their competitors.



IBM: Data-driven organizations are 23 times more likely to acquire customers, six times as likely to retain customers, and 19 times as likely to be profitable.





Certificate

Upon Successful completing the programme, participants will be awarded a certificate in Applied Business Analytics from Mahindra University Centre for Executive Education and KPMG in India



Programme Details





5 Months



Live Online

2 Sessions per week



Enrollment Deadline



Programme Fee: INR 1 Lakh per participant (Plus GST)







Dr. Sankaran Venkataramani

Partner **KPMG** in India

Sankaran has around 28 years of rich experience in the field of strategic operating model advisory, transformational process consulting and leadership competency development and coaching programs. His experience spans across multiple industry domains such as information technology, manufacturing, engineering, services and education.

He is working with KPMG in India as a Partner responsible for global delivery of business excellence practice solutions. Solutions range from strategic operating model improvement initiatives using global standards and frameworks. Sankaran has been actively leading a plethora of consulting engagements with 70+ talented SME consultants. Broadly, the consulting engagements include operational model alignment benchmarking services, enablement programmes to acquire credentials based on internationally recognised competency models, organisational assessment of strategic alignment with execution to derive sustainable business value, execution and delivery transformational assignments and people practices assessment and benchmarking to provide valuable recommendations. He closely works with the leadership team and improvement programme office in providing deep consulting to align and enable achievement of enterprise objectives. He is fluent with global benchmarking models such as Capability Maturity Model Integration, Scaled Agile Framework for Enterprise, SCRUM Agile, People Capability Maturity Model, ISO 9001, ISO 20000, European Foundation for Quality Management and Lean Six Sigma. He has led many successful engagements in line with organisational capability building programmes with the blend of enablement, assessment and consulting scope of work. He has been conducting various management workshops from the year 1997 onwards as part of his overall experience range. Given the combination of his experience evolving from industry and consulting space, Sankaran is familiar with various technology-based interventions and accelerators. His consulting scope also includes evaluating a variety of technological applications around the space of portfolio/programme/project management, solution development, delivery and execution, process and quality management.

Education and qualifications

- B.E Industrial and Production Engineering; MVJCE; Bangalore Univ
- Post Graduate Diploma in Human Resource and Personnel Management from LIBA (Loyola Institute of **Business Administration**)
- Ph.D in Management; IIC University of Technology; Cambodia

Accreditation

- CMMI Institute certified high maturity Lead appraiser and Instructor for CMMI-Dev; CMMI-SVC and PCMM
- ITIL V3 foundation, COBIT 5 foundation and COBIT 5 trainer certified
- Six Sigma Green Belt certified; Qualified Assessor for ISO 9001 by Cranfield University; U.K, EFQM Foundation and Assessor certified, trained on advanced statistical process control tools and techniques, Project Management Programme and train the trainers' course
- SAFe 6.0 certified practice consultant SPC; Leading SAFe 6.0 and Lean Portfolio Management Validation (6.0) certified
- Emerging Leadership Program by Indian School of Business (ISB; Hyderabad), Leading Innovation Course from Stanford (Center for Professional Development) and New Partner Milestone Program from INSEAD

Professional Associations

• Part of Industry bodies such as NASSCOM, CII Connect, Chennai SPIN and Service Knowledge Base





Programme Faculty



Amit Choudhary

Technical Director with KPMG in India



Amit Choudhary is working as a Technical Director with KPMG in India, who provide Data Analytics solution which is the part of Business Excellence practice at KPMG in India, which delivers advanced courses in Analytics, Machine Learning, Artificial Intelligence and Deep learning models. He provides Data Analytics solutions to institutional, corporate, and public sector clients.

He advises clients and delivers training in Machine Learning, R or Python programming for data analytics, Text Analytics, Data Visualizations using Tableau, R, Python, PowerBI, Data Scrapping and Wrangling, EDA, Advance Unstructured Data Analytics and Artificial Intelligence. He works towards making measurable improvements to business objectives of Organizations through application of Data Analytics.

He is Tableau specialist Desktop certified. He has provided Data Analytics Solutions to several organizations and helped them to make data driven business strategies. He has helped firms in building and deployment of Machine learning models, building and automation of Dashboards, analyzing unstructured data –text, audio, video and Image, data mining and scrapping and Statistical Analysis.

He has trained more than 800+ professionals in Data Analytics. He has executed multiple engagements on building analytical process in organizations and establishing analytical process framework, based on Industry best practices and organizational process needs derived from Business objectives. He has delivered Analytical training and projects facilitation of a leading global professional services firm providing a broad range of risk, retirement, and health solutions in India.

Amit holds a Post Graduate Diploma in Data Science from Manipal University, M.Sc. (International Business) from ESC Bretagne Brest business school, France, Certified in Python and Business strategy from Manipal Prolearn and CMMI Certified Associate.

Prior to joining KPMG in Advisory, Amit had worked with Manipal Global Education Services Pvt. Ltd. Responsible for the delivery of B2C and B2B training and content development projects on Machine Learning, R programming, Text Analytics, Data Visualizations using Tableau and R, EDA, Advance Analytics using Python etc.



KPAG Academic Partner



Dileesh K V

Associate Director with KPMG in India

Dileesh K V is working as an Associate Director with KPMG in India, and part of Business Excellence practice of KPMG India, Responsible for providing advisory and training services to clients in the areas of Data Analytics, Lean Six Sigma, and other continuous improvement methodologies. Expertise in Process Improvement and Consulting, Predictive analytics using tools R, Python, Business and Technology transformation, Lean and Six sigma implementation and training, Innovation leader, CMMI and Agile Implementation Consulting.

He is an instructor for business analytics using R, Python & Tableau and has trained over 500 plus participants. He has conducted full time session for management and engineering students in reputed institutes in the areas of Data analytics and Lean six Sigma. He has conducted customized machine learning workshop using python at Nigeria for KPMG Nigeria team and their clients from banking domain.

He has developed various prediction algorithms such as defect type prediction model to check the probability of occurrence of a defect type, KYC Remediation average handling time, HR prediction model for attrition using techniques such as binomial regression, Decision trees, Random Forest etc. Developed 60+ prediction models to predict and address improvements of various factors such as Productivity, Customer satisfaction, Schedule & Effort variance, SLA adherence, first time fix, Throughput, Ticket Backlog, Overall Defect Density etc. using Linear regression.

He has performed detailed VOC analysis using NLP techniques to identify the customer sentiments, to check the correlation between customer comments and VOC score and to predict the VOC score

- based on comments. He has been identified as the innovation leader for a business line to create an innovation culture by encouraging team to contribute ideas by conducting ideation workshops, providing implementation support, effectiveness check etc.
- Dileesh holds a Master of Computer Application (MCA) under Visvesvaraya Technological University, Certificate in Data Analytics using R & Python. He is a Certified Lean Six Sigma Black Belt, EFQM Certified Assessor, Certified CMMI Associate, Certified Scrum Master, Certified Scrum Product Owner and ITIL foundation certified.

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Lijin Senior Consultant with KPMG in India

Lijin is working as a Senior Consultant with KPMG in India, and he provides Data Analytics solution which is the part of Business Excellence practice at KPMG in India, which delivers advanced courses in Analytics, Machine Learning, Artificial Intelligence and Deep learning models. He provides Data Analytics solutions to institutional, corporate, and public sector clients. He advises clients and delivers training in Advance Excel, Strategy Analysis for data analytics, Data Visualizations using Tableau, and Power BI, SPSS, Orange 3, and Business Statistics.

Lijin holds a postgraduate qualification in marketing with 11 years of extensive work experience. He has provided Data Analytics Solutions to several organizations and helped them to make data driven business strategies.

He holds considerable experience in building and deployment of Dashboards, analyzing unstructured data. He has trained more than 300+ professionals in Business Analytics and data Science. Prior to joining KPMG in Advisory, Lijin had worked with ITC Limited, Cavin Kare Pvt Limited.



Stephen Myaboo

Senior Consultant with KPMG in India

Stephen Myaboo is working as a Senior Consultant with KPMG in India, and part of Business Excellence practice of KPMG India, responsible for delivery of trainings in the field of Business Statistics and Business Analytics using R/Python, Advanced Excel, and Lean Six Sigma.

He has delivered courses on Business Statistics, Business Analytics using R/Python at B-Schools to 500+ participants. He has delivered workshops with statistical and analytics tools like Minitab, R, Python. He has delivered modules including concepts such as basic statistics, exploratory data analytics, predictive analytics, data visualization, machine learning algorithms such as – Linear Regression, Binomial Regression, Decision Trees, Random Forest, K-Nearest Neighbors.

He has developed various prediction algorithms such as defect type prediction model to check the probability of occurrence of a defect type, KYC Remediation average handling time, HR prediction model for attrition using techniques such as binomial regression, Decision trees, Random Forest etc.

Stephen holds EGMP from IIM Bangalore, M. Tech in Quality from BITS Pilani, Certified CMMI Associate, Certified Scrum Master, and Certified Scrum Product Owner.







R

Kaushik Swaroop

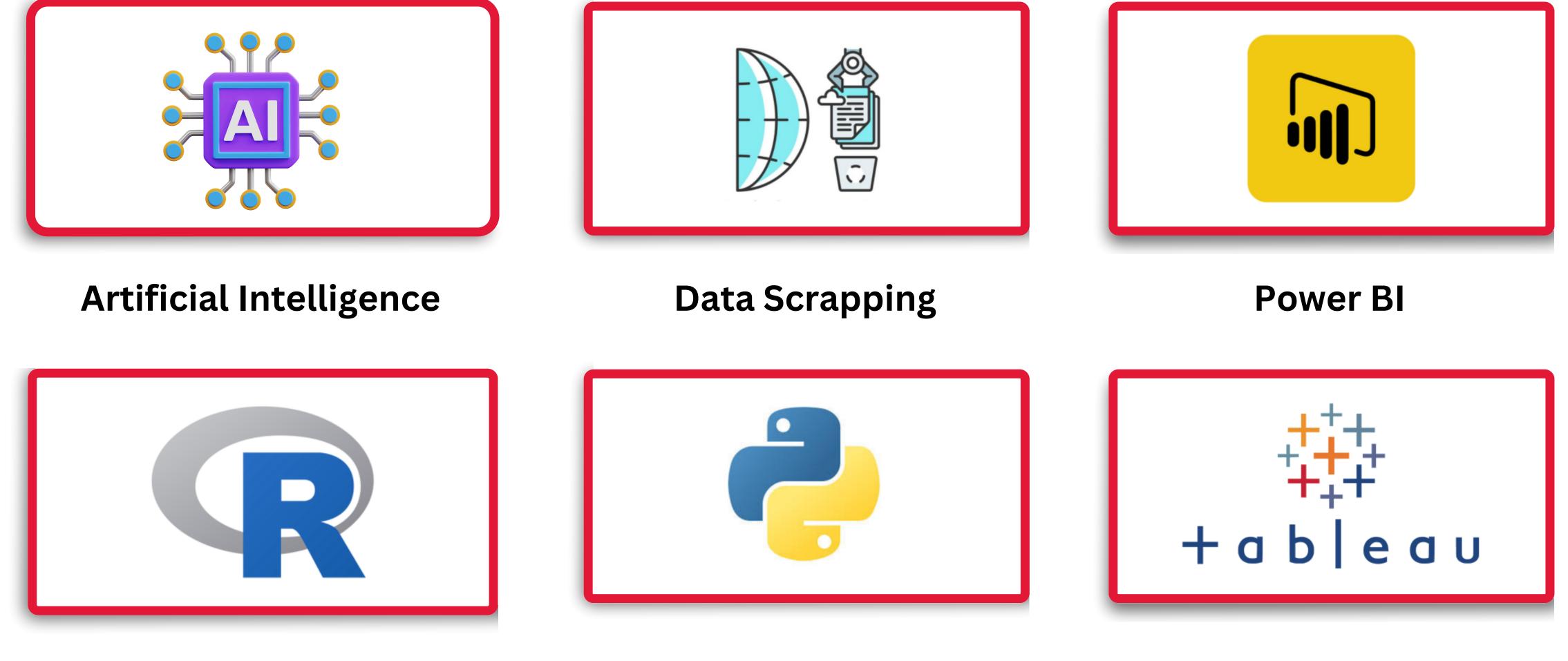
Consultant with KPMG in India

Kaushik Swaroop is working as a Consultant with KPMG in India, provide Data Analytics solution which is the part of Business Excellence practice at KPMG in India, which delivers advanced courses in Analytics, Machine Learning, Artificial Intelligence and Data Visualization. He has worked on projects related to Text Analytics, Marketing Analytics, Financial Analytics and HR Analytics.

He is proficient in Data Analysis techniques like Predictive Modelling, Exploratory Data Analysis, Data Wrangling and Unstructured Data Analytics. Teaching a variety of courses from Artificial Intelligence to Financial Modelling, Kaushik is proficient in essential tools like Python, R, Excel, SQL, Tableau, and more, with teaching experience across India and internationally in the Netherlands and the UK.

Kaushik holds a B.E in Electrical and Electronics Engineering and a PGDM in Business Analytics and Finance from IFIM Business School. He has worked on Machine Learning project to predict the crossselling rate of an organization where the model was built on various classification algorithm like Random Forest, XGBoost etc. He has worked on a Natural Language Processing Project to predict the alpha signals of a stock using micro-blogging data.

Tools that make you Future Ready



Python

Tableau



KPMG Academic Partner

About Mahindra University

Mahindra University, established in May 2020, is a multi-disciplinary global education and knowledge campus which offers industry-aligned curricula, a student-centered learning environment, and opportunities for international exposure. The University offers Undergraduate and Post Graduate programs in its five Schools namely Ecole Centrale School of Engineering, School of Management, School of Law, Indira Mahindra School of Education, School of Media and Liberal Arts. The University has been established in a sprawling, green, 130 acres at Bahadurpally in Hyderabad. The University provides students with a modern lifestyle and a unique multi-cultural immersion in a predominantly green campus. The Lecture Theaters, Seminar Halls and Syndicate Rooms deploy state-of-the-art technology, to impart a multi-media, interactive learning experience to participants. Executive Housing facilities on campus come with contemporary design, spacious & comfortable air-conditioned rooms.

About KPMG in India

KPMG entities in India are professional services firm(s). These Indian member firms are affiliated with KPMG International Limited. KPMG was established in India in August 1993. Our professionals leverage the global network of firms, and are conversant with local laws, regulations, markets and competition. KPMG has offices across India in Ahmedabad, Bengaluru, Chandigarh, Chennai, Gurugram, Hyderabad, Jaipur, Kochi, Kolkata, Mumbai, Noida, Pune, Vadodara and Vijayawada.

KPMG entities in India offer services to national and international clients in India across sectors. We strive to provide rapid, performance-based, industry-focused and technology-enabled services, which reflect a shared knowledge of global and local industries and our experience of the Indian business environment.



EXECUTIVE EDUCATION





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