



**iibm internships**

Get Ready for Industry 4.0 Revolution

Learners received an average  
**salary hike of 50%\***

## Master Program in **Data Science**

9 Months

Online



As Featured In:

  
THE TIMES OF INDIA

Business Standard

hindustan**times**

**ANI**  
South Asia's Leading Multimedia News Agency

 dailyhunt

THE  
HANS INDIA

**YOUR  
STORY**

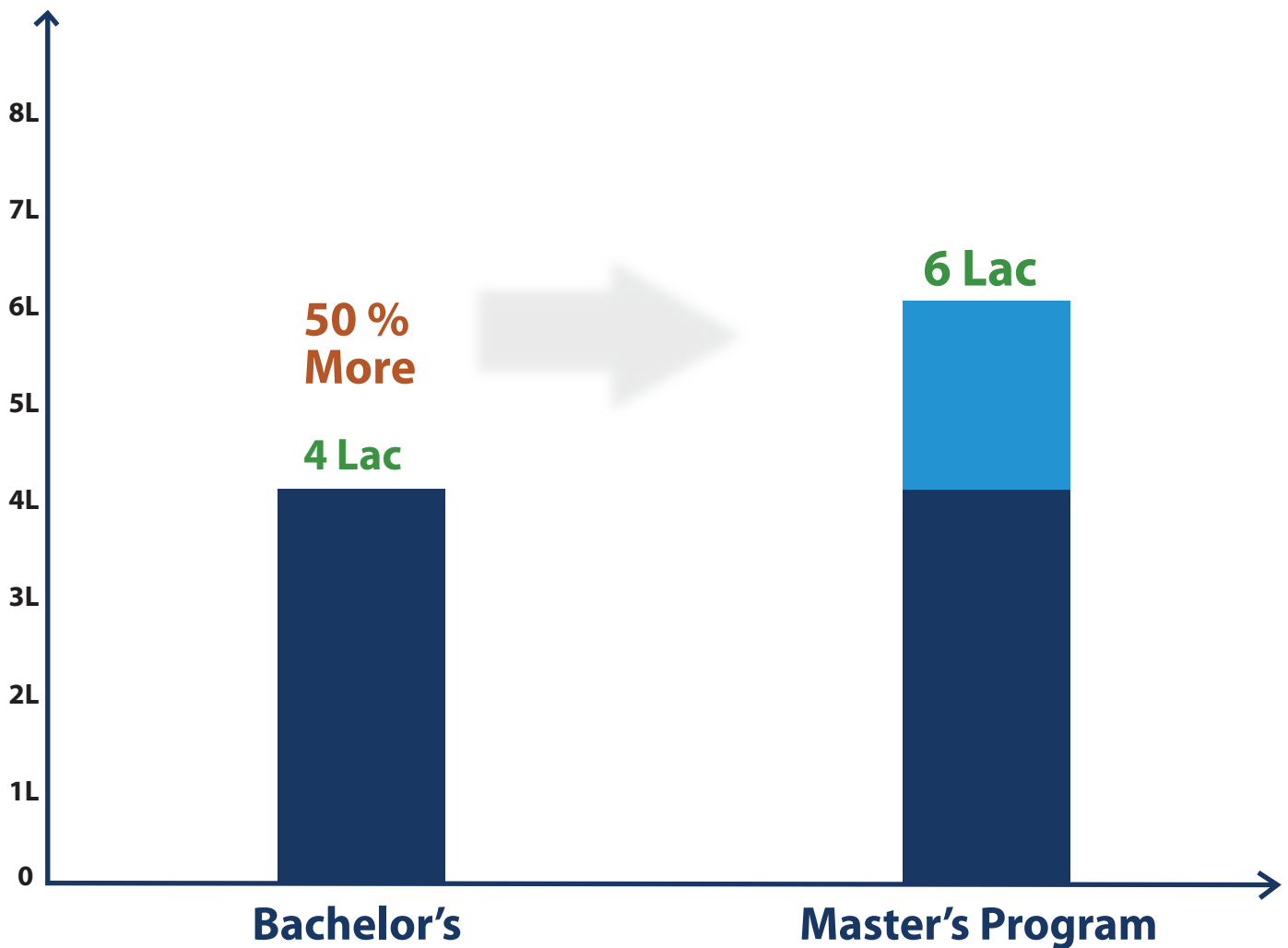
24-12-21

# Annual Income

## Bachelors Vs Masters Program

### Annual Income

Full-time workers age 25 to 34



# IIBM CANDIDATES WORKING IN COMPANIES BELOW

25,000+

SUCCESS STORIES

MOOL CHAND SHARMA  
BHAVESH SHARMA  
ANKIT KUKRETI  
TRISHLA BHAGAT  
RAJEEV MADHAVAN  
ZAFFAR JAVID NOOR  
GURBAKHS SINGH BAVEJA  
DEEPAK KUMAR JHA  
PNVL SAI KARAN  
DEB SHANKAR LAHIRI  
PETER DONKOR  
SRI RAMJI S.K.G.  
BHAVESH SHARMA  
BABU THOMAS  
SAUMYAJIT PANJA  
NIDEESH GK  
ANURADHA SHARMA  
VICTOR MBAJJA  
DEEPAK SINGH  
SHIVANI GUPTA  
MANIKANDAN SIVALINGAM  
JAYVEER KUMAR SINGH  
RAMAKANT  
VINAYAK SAYANNA MADUR  
J RAJKUMAR  
TRISHLA BHAGAT  
NAYAN KUMAR ROOJ  
ABHI DUTTA  
KIRTHI PONNAPPA  
MOOL CHAND PANDIT  
AJAY HARIVADAN RANA  
A. SARFRAS NAWAS  
GAYATHRI. R  
SANDEEP SHARMA  
NITESH SHARMA  
SANDEEP SHARMA  
RAVI NARABOYINA  
DILBAG SINGH  
PRATIK PAVAN CHAPLOT  
BABU THOMAS  
SANDEEP SHARMA  
NITESH SHARMA  
AKHILESH KUMAR M.D.  
GURBAKHS SINGH BAVEJA  
PRADEEPA SADASHIVA  
JURI BHARAT KALITA  
SANJAY TIWARI  
KIRTHI PONNAPPA  
GANESH GUPTA  
RAGINI SETH  
NAVEEN KUMAR

# ABOUT US

- Edtech Company **Since 2008**
- **25,000+** Learners
- **450+** Employees
- **40+** Courses
- **1,20,000 Sq. Ft.** Infrastructure
- Member of **AIMA, MMA,CII, D&B, FIEO**

## WHY THIS PROGRAM WITH IIBM ?

### CURRICULUM

#### EXPERIENTIAL LEARNING

Engaging case studies, projects, for effective learning.

#### INDUSTRY ENDORSED CURRICULUM

Learn about popular tools and techniques used by most of Data Analysts and Data Scientists.

### EMPLOYMENT ASSISTANCE

#### CAREER SERVICES

Career support through mock interviews, resume building and interview preparation workshops.

#### PLACEMENT ASSURANCE

Interview opportunities with leading companies and startups.

### TECH- ENABLED LEARNING

#### SMART CLASSROOM

Learning in technologically- augmented classrooms, enhanced with live lecture recording.

#### LMS

Exclusive access to IIBM learning portal for additional learning and assessments.

### INDUSTRY CONNECT

#### INDUSTRY MENTORSHIP

Dedicated industry leaders to guide you through career- related queries.

# AWARDS AND ACCOLADES

- **"Emerging Data Science Institute of the year"**  
Awards 2021 by WBR Corporation.
- **"National Education Excellence"**  
Awards 2019 for most "Reliable Online Education & Training Institute."
- **"Education Leadership Award"**  
winner by "BBC Knowledge" 2017 at Taj Lands End Mumbai.
- **"Indian Education Congress Award"**  
winner for "Excellence in Distance Learning Education" 2017.
- **"Pride of Indian Education Awards"**  
for "Best Online Institute for Management Courses 2019."
- **"Education Leadership Award 2018"**  
for Innovation by most "Promising Online Education & Training Institute."
- **"Global Education Awards 2018"**  
for "Emerging Management Education Online Solution."
- **"World Education Award 2017"**  
winner in "Innovation by Management Institute."

## IIBM's DATA SCIENCE

- Advanced Job Skills
- 100% Placement
- Industry Assessed Projects
- Online Training



# WHO SHOULD ENROLL ?

**This program caters to graduates in any discipline and working Professionals from diverse backgrounds. Candidates need not have any prior experience to enroll in this program :-**

- Professionals at any career stage, looking to turn large volumes of data into actionable insights.
- Past learners' job roles have included: Business Intelligence Analysts, Management Consultants, Technical Managers, Business Managers, Data Science Managers.
- Data Science enthusiasts and IT professionals.
- Background knowledge of statistical techniques and data calculations or quantitative methods of data research is strongly recommended.
- Familiarity with either R or Python is recommended but not required.

# TALK TO ADMISSION COUNSELLOR

We have a team of dedicated admissions counselors who are here to help guide you in applying to the program. They are available to:

- Address questions related to the application
- Assist with financial aid (if required)
- Help you resolve your questions and understand the program

# DATA SCIENCE PROGRAMS

S.NO.	Course Name	Duration	Certificates	Lumpsum	Installment
1.	Master Program in Business Analytics	9 Months	<ul style="list-style-type: none"><li>• Master Program in Business Analytics</li><li>• Tableau Certificate</li></ul>	Rs. 45,000 +18% GST	Rs. 50,000 +18% GST
2.	Master Program in Data Science	9 Months	<ul style="list-style-type: none"><li>• Master Program in Data Science</li><li>• Business Analyst Certificate</li></ul>	Rs. 45,000 +18% GST	Rs. 50,000 +18% GST
3.	Master Program in Machine Learning and Artificial Intelligence	9 Months	<ul style="list-style-type: none"><li>• Master Program in Machine Learning and Artificial Intelligence</li><li>• Big Data Certificate</li></ul>	Rs. 55,000 +18% GST	Rs. 60,000 +18% GST
4.	Master Program in Big Data Engineering	9 Months	<ul style="list-style-type: none"><li>• Master Program in Big Data Engineering</li><li>• Business Analyst Certificate</li></ul>	Rs. 55,000 +18% GST	Rs. 60,000 +18% GST



# CERTIFICATION

Upon completion of the Master Program in Data Science, aspirants will receive an Industry-endorsed certificate.



**IIBM Institute of Business Management**

## Certificate of Achievement

This is to certify that

**Malay Kumar Ghosh**

Has successfully completed training program  
and study requirements of the Institute and awarded

**MASTER PROGRAM IN  
DATA SCIENCE**



G20/07/DL1234

CERTIFICATE ID

July - 2020

MONTH-YEAR

A handwritten signature in black ink, likely belonging to the Program Director.

PROGRAM DIRECTOR

# MASTER PROGRAM IN BUSINESS ANALYTICS

## COURSE HIGHLIGHTS

- Video Tutorials : 155+ Hours
- Doubt Clearing Sessions : Yes
- LMS Capstone Projects : 15+
- In Class Projects : 15+
- No. Of Quiz : 1200+

## ELIGIBILITY

Fresh Graduates/ Diploma in any discipline.

## COURSE DURATION

9 Months

## CURRICULUM

**MODULE 1** Business Analysis

**MODULE 2** Data Science with R

**MODULE 3** SQL Database

**MODULE 4** Data Analytics

**MODULE 5** Data Science with Python

**MODULE 6** Machine Learning

**MODULE 7** Data Visualization using Tableau

## COURSE FEES

**Lumpsum Fees** Rs. 45,000 + GST 18 % applicable

<b>Installment</b> Rs. 50,000 + GST 18 % applicable				
Registration Amount	EMI 1	EMI 2	EMI 3 + Exam Fees	EMI 4 + GST 18%
10,000	15,000	15,000	10,000 + 6,000	9,000

\*Exam Fees of 6000/- applicable for complete course.

\*EMI has to be paid every month. If not paid, fine of 500/- Rs. is applicable.

## CERTIFICATE AWARDED

• Master Program in Business Analytics

• Tableau Certificate

# CURRICULUM

Module 1 BUSINESS ANALYSIS	
Topic	Content Covered
BA Introduction and Fundamentals	Business Analyst – Who, What, Why?   BA – qualities, skills, roles, responsibilities   Fundamentals of Business Analysis   Hierarchical Structure of IT Team   IIBA, BABOK, CBAP, CCBA Overview   CMMI Overview   Project Stakeholder   Types of Stakeholder   Software Project and Types of Software Project   Software Contract and Types of Software Contract
Software Development Life Cycle (SDLC)	Introduction of SDLC   Need of a BA in SDLC   Phases of SDLC   "SDLC Methods   --> Waterfall Model and Agile, Scrum   --> Iterative and Incremental   --> V Model and Spiral Model"   "SDLC --> Pre-requisites and Activities   --> Common Criteria and Deliverables"   Software Maintenance lifecycle model   Software testing lifecycle model
Requirement Engineering	Why do we need good Requirements   Why do Project Fail?   Importance of Requirement – Statistics   What is Requirements Engineering   Role of a Business Analyst
Requirements	What are requirements? And Characteristics of Requirements   Types of Requirements   Business Requirements   User Requirements and System Requirements   Functional Requirements and Non-Functional Requirements Implementation Requirement and UI Requirements
Requirements Process Flow and Requirements Framework	Initial Exploration   Form Business Requirements   Provide Solution to satisfy Business Requirements   Create Functional Specifications/Use Cases   Validate Requirements with Customer   Form SRS and Seek Approval   Requirements Framework
Requirements Elicitation	Sources of Requirement Elicitation   Skills for Requirement Elicitation   Stakeholder Identification   Surveys and Questionnaire   Interviewing and Focus Group Interviews   Brainstorming and Reverse Engineering   Prototyping and Wire Frames   JAD – Joint Application Development   Observation and Task Analysis   Domain Analysis and Persona Challenges in Requirement Elicitation
Requirements Analysis	Classifying and Prioritizing Requirements   Fish Bone Diagram – Causal Effect   Pareto's Diagram – 80:20 Rule   Moscow Prioritization   Kano Analysis   Requirements Allocation and Validation   Requirements Pre-Review and Review   Requirements Walkthrough and Sign Off
Requirements Specification	How to write Business Requirement document?   How to write Software Requirement specification   Introduction to Software Requirement Specification   Understanding SRS syntax with IEEE Standards   What are Use Case and Use Case Narrative?   Relationship between Use Cases   How to write Use Cases?   Use Case Narrative Flows - Primary Flow, Alternative Flow,   Exceptional Flow   Activity Diagram, Class Diagram, E-R Model, Sequence Diagram, State Diagram, Collaboration Diagram
Requirement Engineering Project with Cases – Phase 1	Business Process of existing system   GAP Analysis – PIECES Framework   Domain Properties and Stakeholders   Feasibility Study   Evaluation of Alternatives using Cost – Benefit Analysis
Requirement Engineering Project with Cases – Phase 2	Use case Description and Use Case Diagram   Activity Diagram   What are Use Case and Use Case Narrative?   Relationship between Use Cases   How to write Use Cases?   Use Case Narrative Flows - Primary Flow, Alternative Flow, Exceptional Flow   Pre-condition, Post-condition, Exception handling and Triggers
Requirement Engineering Project with Cases – Phase 3	Sequence Diagram   Class Diagram   Software Requirement Specification
Requirements Management	RTM - Requirements Traceability Matrix   Requirements Change Management   Requirements Risk Management   Impact Analysis

Topic	Content Covered
Scope Management	Different dimensions of scope   Managing Scope at different stages of the Project Product Scope and Project Scope   Issues in scope management   Measurement of Scope and Metrics
Risk Management	Steps in Risk Management   Risk Identification   Risk Analysis and Prioritization Risk Response – Strategy, Actions & Response Owners   Risk Monitoring and Control   Risk Management Documents
Estimation Management	Introduction to Estimation   The Importance of Estimation   What is Estimation?   The Estimation Process Overview   Problems with Estimations   Estimation Techniques
Customer Expectation Management	Importance of CEM   Traditional and modern view   Understanding Customer and Managing Expectations   Issues in Customer Expectation Management   Handling Difficult Situations   Expectation Management Life-Cycle
Quality Process Awareness	Quality Management System   Concept of Quality   Metrics and Measurements   Defect Preventions   Defect analysis tools and techniques
Business Communication Management	Communication: Introduction   Email Communication   Teleconference and Meetings   Assertiveness and Scenarios
Requirement Process, Planning and Management	Understanding IT project hierarchy   Project Charter and Requirements Process   RACI Matrix and Requirements Planning   Work Efforts & Estimations   Managing Requirements BA's plan to feed into Project Plan
Prototyping	Define Prototyping and Importance of prototyping   Types of Prototyping   Prototyping as methodology   User Interface Prototyping   Advantage and Disadvantages of Prototyping
BA Deliverables - Documentation and Templates	Business Requirement Document (BRD)   Use case document (USD)   Software Requirement Specification Document (SRS)   Change Request Process Document   Functional Requirement Specification (FSD)   Business Process Questionnaire Document Project Requirement Management and development process Document   Scope management Document   Requirement Traceability matrix document
UML Diagram	Use Case Diagram and Class Diagram   Sequence Diagram and Collaboration Diagram   Activity Diagram and State Diagram
Business Analysis Tools	Rational Requisite Pro   Microsoft Visio – UML Tool   Team Foundation Server (TFS)   JIRA – Agile Tool   SVN – Configuration Management Tool   Axure – Prototype Tool
Agile Methodologies	The Product Backlog Creation   High-level Project and Process Plan   Sprint Planning Meeting   The Sprint and Daily Scrum Meetings   Sprint Review Meeting   Sprint Retrospective   Next Sprint and Repeat   Post-Sprint Functional Testing by PO   Pre-release Testing prior to Release to Customer   Release to Customer
Business Analysis Process	Requirement Development Process – For New Development Project   Requirement Management Process – For Maintenance Project   Change Request (CR) Process
Software Project Management	What is Project Management?   Project Management Phases   Project Management Knowledge Areas   Project Management Tools
BABOK Structure – CBAP Certification Knowledge Areas	BABOK Introduction   BABOK Knowledge Areas   Business Analysis Planning   Enterprise Analysis   Requirement Elicitation   Requirement Analysis   Solution Assessment and Validation   Requirement Management and Communication
Business Analysis Perspectives	Agile Perspectives   Business Intelligence Perspectives   Information Technology Perspectives   Business Architecture Perspectives   Business Process Management Perspectives

## Module 2

## DATA SCIENCE WITH R

Topic	Content Covered
Introduction of R	What and Why R?   Different flavors of R and R - Installation   Libraries in R Studio-Work Directory Setup
Data Structures used in R	R-Data Types, Operators   R-Keywords and Exceptions ,Functions   R-Data Structures and R Interfaces
Data Visualization using R	Line Plots, Bar Charts, Pie Chart and Histogram   Scatter Plots and Parallel Coordinates   Advanced Plotting and Other Plotting Packages
Predictive Customer Analysis using R - Linear Regression	Linear Regression Analysis   Formulation of Bivariate and Multivariate Regression Model Mapping Regression with Real Time Example
Bank Loan Modelling using R - Logistic Regression	Logistic Function   Single and Multiple Predictor Model   Determine Logistic Cut off   Estimated Equation for Logistic Regression
Sales Promotion Effectiveness - Dimension Reduction using R - Factor Analysis	Factor Analysis Model   Principal Component Analysis(PCA) Method   Rotation Method Mapping Factor Analysis with Real Time Example
Customer and Market Segmentation - Cluster Analysis using R	Cluster Analysis Introduction   Classification of Clustering Procedure   Hierarchical Clustering   Non Hierarchical Clustering
Retail Analysis : Market Based Analysis - Association Rule using R software	Association Rule Introduction   Apriori Algorithm - Multiple Association Rules   Market Basket Analysis (MBA)   Application of Apriori Algorithm and Market Basket Analysis
Customer Loyalty Analytics - Naïve Bayes Classification using R Software	Naïve Bayes Theorem   Characteristics of Naïve Bayes   Real Time Case study using Naïve Bayes   Advantage and Shortcoming of Naïve Bayes
K - Nearest Neighbour using R software	K – Nearest Neighbour Algorithm   Choosing “K” and High “K” vs. Low “K”   Real Time case study using KNN   Advantage and Disadvantage of KNN
Decision Trees using R software	Creation of Decision Tree   Entropy and Information Gain with Intuitions   Forward Pruning and Backward Pruning   Sub tree Replacement and Raising   Real time case study with Decision Tree
Random Forest using R software	Ensample of Decision Tree

## Module 3

## SQL DATABASE

Topic	Content Covered
Fundamentals of SQL Database	Introduction   RDBMS   Constraints   Normalisation   Syntax   Operators   Database queries   Table queries   Indexes   Handling duplicates

Module 4		DATA ANALYTICS
Topic	Content Covered	
Fundamental of Data Analytics	Data Analytics across Domains   What is Analytics?   Types of Analytics   AI vs ML vs DL vs DS	
Basics concepts in Statistics for Data Analytics	Introduction to statistics and Central Limit Theorem   Measures of Central Tendancies and Measures of Spread   Descriptive Statistics with Real Time Examples   Measuring Scales   Inferential Statistics with Real Time Examples	
Advanced concepts in Statistics for Data Analytics	Hypothesis Testing and Goodness of Fit test   Introduction to Statistical Tests   Statistical Test with Real Time Example   Analysis of Variance(ANOVA) & Analysis of Covariance (ANCOVA)   Probability Theory for Data Analytics   Types of Probability Distribution	
Module 5		DATA SCIENCE WITH PYTHON
Topic	Content Covered	
Python Fundamentals	Python Intro,IDE and Python Packages   Python Programming   Python Data Types - Dictionary, List and Set	
Python Packages	Numpy Packages - Array Handling and Manupulation   Pandas Packages - Dataframe and Loading Excel, CSV File   Matplotlib Packages - Line graph and Visualisation	
Data Visualisation Using Python	Histogram, Scatter Diagram, Box Plot and Bar Graph, Area Chart, Dual Axis, Array reshaping, reverse matrix, analysis	
Python - Control Structures	Python - Operators and String Manupulation   Control Structures(IF,IF-ELSE,IF-ELIF-ELSE, WHILE & FOR LOOP)	
Exporatory Data Analysis (EDA)	Python - Data Preparation Process   Python - Functions WITH and WITHOUT arguments Python - File Processing and Data Collection Methods	
Python - Predictive Analytics	Python - Time Series Analysis and Forcasting   Python - Simple Predictive Analysis	
Data Science Lifecycle	Data Science with Python   Data Science Application across Multiple Domain and Business Function   Data Science Project LifeCycle	
Data Science Prediction Algorithm	Multiple Predictive Model using Python   Python - Simple and Multiple Predictive Model in Practical   Python Correlation Analysis   Python Classifcation Model Building	
Data Science Classification Algorithm	Data Science - Experimental Design Analysis   Classifcation Technique - Discriminant Analysis   Data Science - Association Rule - Apriori Algorithm   Data Science - Building Recommendation System - (Market Basket Analysis)	
Data Science - Image Regognition	Data Architecture Design, Data Warehousing and it's Schema Design  Image Processing and Image Extraction   Image Processing and Object Recognition   Summarisation of Data Science Algorithm (Data Science Process)	
Module 6		MACHINE LEARNING
Topic	Content Covered	
Machine Learning Introduction	Machine Learning Introduction	
Supervised Learning - Regression Algorithm	Linear Regression   Logistics Regression   ANOVA and ANCOVA   Linear Discriminant Analysis	
Supervised Learning - Classification Algorithm	Naïve Bayes   K-Nearest Neighbour   SVM- Support Vector Machine   -Decision Tree and Random Forest	
Unsupervised Learning Algorithm	Factor Analysis   Cluster Analysis   Association Rule   Correlation	
Time Series	Time Series Analysis	



## Module 7

# DATA VISUALIZATION USING TABLEAU

Topic	Content Covered
Tableau Introduction	Line Plots and Bar Charts   Pie Chart and Histogram   Scatter Plots and Parallel Coordinates
Tableau – Geographic Location Mapping	Connecting Tableau to a Data File and CSV File   Creating Calculated Fields,Adding Colors and Labels   Time series, Aggregation, Filters and Level of Detail
Tableau Different types of joins	Working with Hierarchies,Joining and Blending Data   Dual Axis Charts, Creating Bins and Tree Map Chart   Creation of Dashboard and Storyline   Creating an Area Chart & Adding a Filter and Quick Filter   Understanding how LEFT, RIGHT, INNER, and OUTER Joins Work
Tableau Data Blending	Joining Data vs. Blending Data   Data Blending in Tableau   Creating Calculated Fields in a Blend
Tableau Storyline Creation	Time series, Aggregation and Filters   Working with Data Extracts in Tableau   Working with Time Series   Understanding Aggregation, Granularity
Tableau Data Interpreters and cleaning	Advanced Data Preparation   Data Interpreter and Pivot   Splitting a Column into Multiple Columns   Metadata Grid and Fixing Geographical Data Errors
Tableau Dashboard Concepts	Maps, Scatterplots   Joining Data in Tableau   Working with Hierarchies   Creating a Scatter Plot
Tableau Cluster Creation and Modelling	Cluster Analysis introduction  Classification of clustering procedure   Hierarchical clustering and non Hierarchical clustering
Tableau Regression Analysis	Linear Regression Analysis   Formulation of Regression Model   Conducting Bivariate and Multivariate Regression   Regression with Real Time Example
Tableau Step Up	Tool Tip Analysis and Grouping   Table Calculations, Advanced Dashboards, Storytelling

## CAPSTONE PROJECTS

Data Analytics	Bank Loan Modeling solution execution
	Application of Machine Learning Algorithm in Attrition Project and its analysis
Machine Learning	Attribution analysis solution execution
	Bank Loan Modelling and its analysis
	Application of Machine Learning Algorithm in Bank Loan Modelling
	Merger and Acquisitions analytics
	LKP Project using Python
	Recommendation of new model
Business Analysis	Online Recruitment Process
Data Visualization Tableau	Customer Loyalty Analytics and its Application
	Attrition Analysis and Bank Loan Modelling
Data Science using R	Solution- HR Analytics Attrition Analysis
	Merger and Acquisition

# MASTER PROGRAM IN DATA SCIENCE

## COURSE HIGHLIGHTS

- Video Tutorials : 185+ Hours
- Doubt Clearing Sessions : Yes
- LMS Capstone Projects : 20+
- In Class Projects : 15+
- No. Of Quiz : 1500+

## ELIGIBILITY

Fresh Graduates/ Diploma in any discipline.

## COURSE DURATION

9 Months

## CURRICULUM

**MODULE 1** Business Analysis

**MODULE 2** Data Science with R

**MODULE 3** Data Analytics

**MODULE 4** Data Science with Python

**MODULE 5** Machine Learning

**MODULE 6** Deep Learning

**MODULE 7** Natural Language Processing

**MODULE 8** Data Visualization using Tableau

**MODULE 9** Big Data

**MODULE 10** Power BI

## COURSE FEES

**Lumpsum Fees** Rs. 45,000 + GST 18 % applicable

<b>Installment</b> Rs. 50,000 + GST 18 % applicable				
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\*Exam Fees of 6000/- applicable for complete course.

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## CERTIFICATE AWARDED

• Master Program in Data Science

• Business Analyst Certificate



# CURRICULUM

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Software Project Management	What is Project Management?   Project Management Phases   Project Management Knowledge Areas   Project Management Tools
BABOK Structure – CBAP Certification Knowledge Areas	BABOK Introduction   BABOK Knowledge Areas   Business Analysis Planning   Enterprise Analysis   Requirement Elicitation   Requirement Analysis   Solution Assessment and Validation   Requirement Management and Communication
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Module 2		DATA SCIENCE WITH R
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Sales Promotion Effectiveness - Dimension Reduction using R - Factor Analysis	Factor Analysis Model   Principal Component Analysis(PCA) Method   Rotation Method Mapping Factor Analysis with Real Time Example	
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Decision Trees using R software	Creation of Decision Tree   Entropy and Information Gain with Intuitions   Forward Pruning and Backward Pruning   Sub tree Replacement and Raising   Real time case study with Decision Tree	
Random Forest using R software	Ensample of Decision Tree	

Module 3		DATA ANALYTICS
Topic	Content Covered	
Fundamental of Data Analytics	Data Analytics across Domains   What is Analytics?   Types of Analytics   AI vs ML vs DL vs DS	
Basics concepts in Statistics for Data Analytics	Introduction to statistics and Central Limit Theorem   Measures of Central Tendancies and Measures of Spread   Descriptive Statistics with Real Time Examples   Measuring Scales   Inferential Statistics with Real Time Examples	
Advanced concepts in Statistics for Data Analytics	Hypothesis Testing and Goodness of Fit test   Introduction to Statistical Tests   Statistical Test with Real Time Example   Analysis of Variance(ANOVA) & Analysis of Covariance (ANCOVA)   Probability Theory for Data Analytics   Types of Probability Distribution	

## Module 4

## DATA SCIENCE WITH PYTHON

Topic	Content Covered
Python Fundamentals	Python Intro,IDE and Python Packages   Python Programming   Python Data Types - Dictionary, List and Set
Python Packages	Numpy Packages - Array Handling and Manipulation   Pandas Packages - Dataframe and Loading Excel, CSV File   Matplotlib Packages - Line graph and Visualisation
Data Visualisation Using Python	Histogram, Scatter Diagram, Box Plot and Bar Graph, Area Chart, Dual Axis, Array reshaping, reverse matrix, analysis
Python - Control Structures	Python - Operators and String Manipulation   Control Structures(IF,IF-ELSE,IF-ELIF-ELSE, WHILE & FOR LOOP)
Exporatory Data Analysis (EDA)	Python - Data Preparation Process   Python - Functions WITH and WITHOUT arguments Python - File Processing and Data Collection Methods
Python - Predictive Analytics	Python - Time Series Analysis and Forecasting   Python - Simple Predictive Analysis
Data Science Lifecycle	Data Science with Python   Data Science Application across Multiple Domain and Business Function   Data Science Project LifeCycle
Data Science Prediction Algorithm	Multiple Predictive Model using Python   Python - Simple and Multiple Predictive Model in Practical   Python Correlation Analysis   Python Classification Model Building
Data Science Classification Algorithm	Data Science - Experimental Design Analysis   Classification Technique - Discriminant Analysis   Data Science - Association Rule - Apriori Algorithm   Data Science - Building Recommendation System - (Market Basket Analysis)
Data Science - Image Recognition	Data Architecture Design, Data Warehousing and it's Schema Design  Image Processing and Image Extraction   Image Processing and Object Recognition   Summarisation of Data Science Algorithm (Data Science Process)

## Module 5

## MACHINE LEARNING

Topic	Content Covered
Machine Learning Introduction	Machine Learning Introduction
Supervised Learning - Regression Algorithm	Linear Regression   Logistics Regression   ANOVA and ANCOVA   Linear Discriminant Analysis
Supervised Learning - Classification Algorithm	Naïve Bayes   K-Nearest Neighbour   SVM- Support Vector Machine   -Decision Tree and Random Forest
Unsupervised Learning Algorithm	Factor Analysis   Cluster Analysis   Association Rule   Correlation
Time Series	Time Series Analysis



The Data Science with IIBM Institute of Business Management is really useful. I liked the mode of teaching and the mode of completing the course chapters in an explanatory way. The instructor is friendly and poised the approach. I am sure the course will help me to explore career in Data Science.

-VIBHOR KUMAR

Data Analyst

INNOLABZ VENTURES PVT. LTD.

Module 6		DEEP LEARNING
Topic	Content Covered	
Deep Learning and Neural Networks Overview	Deep Learning Fundamentals   Working of Neural Networks   Gradient Descent and Back Propagation   Decession Tree   Activation Function	
Tensorflow	Tensorflow Introduction	
Keras Basics	Building Artificial Neural Networks (ANN)   Deep Learning-Overview   Deep Learning-ANN-classification	
Computer Vision	Computer-Vision-opencv-part1-overview   Computer-Vision-opencv-part2-face_detection   Intro to CNN	
Recurrent Neural Network	Introduction to RNN & Sequence prediction using RNN   Introduction to LSTM	
Long short-term memory	Introduction to LSTM   Sequence prediction using LSTM   Applications in text analytics   Stock prediction   Time series data	
Module 7		NATURAL LANGUAGE PROCESSING
Topic	Content Covered	
Natural Language Processing Basics	Basics of NLP   NLP- tolinisation   Removing Stop Words   Stemming & lemmatization   Parts of speech tagging   TFIDF vectorizer   Bag of words   Senmiment Analysis	
Natural Language Processing Advanced	Text Classification with Linear Models   Language Modelling with Probabilistic Graphical Models and Neural Networks   Word Embeddings and Topic Models   Machine Translation and Sequence-To-Sequence Models	
Speech Recognition	NLP-Speech-Recognition-and-Text-to-Speech	
Reinforcement Learning	Introduction to Reinforcement Learning   Model-Based Reinforcement Learning (Dynamic Programming)Model-Free Reinforcement Learning (SARSA, Monte Carlo, Q-Learning)   Approximate and Deep Reinforcement Learning (Deep Q- Learning)   Policy Gradient Reinforcement Learning   Advanced Topics on Exploration and Planning	
Module 8		DATA VISUALIZATION USING TABLEAU
Topic	Content Covered	
Tableau Introduction	Line Plots and Bar Charts   Pie Chart and Histogram   Scatter Plots and Parallel Coordinates	
Tableau – Geographic Location Mapping	Connecting Tableau to a Data File and CSV File   Creating Calculated Fields,Adding Colors and Labels   Time series, Aggregation, Filters and Level of Detail	
Tableau Different types of joins	Working with Hierarchies,Joining and Blending Data   Dual Axis Charts, Creating Bins and Tree Map Chart   Creation of Dashboard and Storyline   Creating an Area Chart & Adding a Filter and Quick Filter   Understanding how LEFT, RIGHT, INNER, and OUTER Joins Work	
Tableau Data Blending	Joining Data vs. Blending Data   Data Blending in Tableau   Creating Calculated Fields in a Blend	
Tableau Storyline Creation	Time series, Aggregation and Filters   Working with Data Extracts in Tableau   Working with Time Series   Understanding Aggregation, Granularity	
Tableau Data Interpreters and cleaning	Advanced Data Preparation   Data Interpreter and Pivot   Splitting a Column into Multiple Columns   Metadata Grid and Fixing Geographical Data Errors	
Tableau Dashboard Concepts	Maps, Scatterplots   Joining Data in Tableau   Working with Hierarchies   Creating a Scatter Plot	



Topic	Content Covered
Tableau Cluster Creation and Modelling	Cluster Analysis introduction  Classification of clustering procedure   Hierarchical clustering and non Hierarchical clustering
Tableau Regression Analysis	Linear Regression Analysis   Formulation of Regression Model   Conducting Bivariate and Multivariate Regression   Regression with Real Time Example
Tableau Step Up	Tool Tip Analysis and Grouping   Table Calculations, Advanced Dashboards, Storytelling

## Module 9 **BIG DATA**

Topic	Content Covered
Introduction of Big Data	Introduction of Big Data
Hadoop	Linus Commands   HDFS Commands   <b>SQOOP Architecture and Hands-on :</b> Import data from Target RDBMS TO HDFS   Usecase: with and without Primary key and Incremental Load   Usecase: Import all tables at a time and Exclude Tables   Usecase: Creation of Sqoop Job and Use Condition   Usecase: Data Import and Export from RDBMS and Hive Table
HIVE Architecture and Hands-on	Different Types OF Tables In Hive and Partitioning   Partitioning and Bucketing   How to Perform Both Partitioning and Bucketing using one table   Joins(Reducer Side Joins and MapSide Joins)   HIVE: File Formats, Semi structured Data, Updation and Deletion, UDF and Complex Types
HBASE Architecture and Hands-on	Difference Between Hive,SQL and HBASE   How to create tables,insert,update and delete   How to import data from rdbms to HBASE using Sqoop   How to Load CSV DATA INTO HBASE TABLE   HIVE to HBASE INTEGRATION
PIG and MapReduce	PIG and MapReduce
Scala	Scala - Variables, In Built Functions   Scala - Control Structures and String Manipulations Scala - Collections, File and Exceptions Handling and Traits
SPARK vs MapReduce	Spark - Architecture, File Operations, Spark Shell   Spark - Spark Context Creation, Cache and Persist   Spark Project with Maven in Eclipse   RDD: Transformations and Actions and Data Loading   RDD: Key Value Pair, Operations and Spark Application with Spark Shell   Deploying Application with Spark submit   Spark SQL : Introduction with different file Formats   SPARK SQL: DataFrames, DAG, Lineage Graph, Cluster types   Optimizers, Structured Streaming,RDDs to Relations
SPARK Streaming	Spark Streaming - Introduction and Architecture   SparkStreaming vs Flume   Kafka Introduction and Architecture   Spark Streaming integration with Kafka Overview   Real Time Examples

## Module 10 **POWER BI**

Topic	Content Covered
BI Introduction	Power BI services   Advantages of visual analytics
Power BI Desktop	Installation Process of Power BI desktop and getting familiar with interface
Working with Query Editor	Filters   Splitting columns   Groups   Merging   Conditional Columns
Data Modelling	Cardinality   Cross Filters   DAX Functions
Creating Visuals In Report View	Different types of visual features   Drill Down   Formatting Visuals
Taking Project to cloud	How to export Desktop Reports to cloud service and explore my workspace, sharing with other

# CAPSTONE PROJECTS

Data Analytics	Bank Loan Modeling solution execution
	Application of Machine Learning Algorithm in Attrition Project and its analysis
Machine Learning	Attribution analysis solution execution
	Bank Loan Modelling and its analysis
	Application of Machine Learning Algorithm in Bank Loan Modelling
	Merger and Acquisitions analytics
	LKP Project using Python
	Recommendation of new model
Artificial Intelligence	Telecom Churn case study using Sklearn
	Handwritten Digit classification using ANN
	Recommendation Engine
	Sentiment Analyser
	Building Chatbot
	SMS Spam Classifier
	Twitter Sentiment Analyser
Business Analysis	Online Recruitment Process
Data Visualization Tableau	Customer Loyalty Analytics and its Application
	Attrition Analysis and Bank Loan Modelling
Data Science using R	Solution- HR Analytics Attrition Analysis
	Merger and Acquisition



Brilliant course and excellent study material and faculty support! It's a great professional course that can help you in carving a career in Data Science. I will highly recommend it to aspirants interested in pursuing a professional career in Data Science.

- SOUVIK BANERJEE

# MASTER PROGRAM IN MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE

## COURSE HIGHLIGHTS

- Video Tutorials : 220+ Hours
- Doubt Clearing Sessions : Yes
- LMS Capstone Projects : 20+
- In Class Projects : 15+
- No. Of Quiz : 1800+

## ELIGIBILITY

Fresh Graduates/ Diploma in any discipline.

## COURSE DURATION

9 Months

## CURRICULUM

**MODULE 1** Business Analysis

**MODULE 2** Data Science with R

**MODULE 3** SQL Database

**MODULE 4** Data Analytics

**MODULE 5** Data Science with Python

**MODULE 6** Machine Learning

**MODULE 7** Deep Learning

**MODULE 8** Natural Language Processing

**MODULE 9** Data Visualization Using Tableau

**MODULE 10** Big Data

**MODULE 11** Power BI

## COURSE FEES

**Lumpsum Fees** Rs. 55,000 + GST 18 % applicable

<b>Installment</b> Rs. 60,000 + GST 18 % applicable					
Registration Amount	EMI 1	EMI 2	EMI 3	EMI 4 + Exam Fees	EMI 5 + GST 18%
10,000	15,000	15,000	15,000	5,000 + 6,000	10,800

\*Exam Fees of 6000/- applicable for complete course.

\*EMI has to be paid every month. If not paid, fine of 500/- Rs. is applicable.

## CERTIFICATE AWARDED

- Master Program in Machine Learning and Artificial Intelligence
- Big Data Certificate



# CURRICULUM

Module 1		BUSINESS ANALYSIS
Topic	Content Covered	
BA Introduction and Fundamentals	Business Analyst – Who, What, Why?   BA – qualities, skills, roles, responsibilities   Fundamentals of Business Analysis   Hierarchical Structure of IT Team   IIBA, BABOK, CBAP, CCBA Overview   CMMI Overview   Project Stakeholder   Types of Stakeholder   Software Project and Types of Software Project   Software Contract and Types of Software Contract	
Software Development Life Cycle (SDLC)	Introduction of SDLC   Need of a BA in SDLC   Phases of SDLC   "SDLC Methods   --> Waterfall Model and Agile, Scrum   --> Iterative and Incremental   --> V Model and Spiral Model"   "SDLC --> Pre-requisites and Activities   --> Common Criteria and Deliverables"   Software Maintenance lifecycle model   Software testing lifecycle model	
Requirement Engineering	Why do we need good Requirements   Why do Project Fail?   Importance of Requirement – Statistics   What is Requirements Engineering   Role of a Business Analyst	
Requirements	What are requirements? And Characteristics of Requirements   Types of Requirements   Business Requirements   User Requirements and System Requirements   Functional Requirements and Non-Functional Requirements Implementation Requirement and UI Requirements	
Requirements Process Flow and Requirements Framework	Initial Exploration   Form Business Requirements   Provide Solution to satisfy Business Requirements   Create Functional Specifications/Use Cases   Validate Requirements with Customer   Form SRS and Seek Approval   Requirements Framework	
Requirements Elicitation	Sources of Requirement Elicitation   Skills for Requirement Elicitation   Stakeholder Identification   Surveys and Questionnaire   Interviewing and Focus Group Interviews   Brainstorming and Reverse Engineering   Prototyping and Wire Frames   JAD – Joint Application Development   Observation and Task Analysis   Domain Analysis and Persona Challenges in Requirement Elicitation	
Requirements Analysis	Classifying and Prioritizing Requirements   Fish Bone Diagram – Causal Effect   Pareto's Diagram – 80:20 Rule   Moscow Prioritization   Kano Analysis   Requirements Allocation and Validation   Requirements Pre-Review and Review   Requirements Walkthrough and Sign Off	
Requirements Specification	How to write Business Requirement document?   How to write Software Requirement specification   Introduction to Software Requirement Specification   Understanding SRS syntax with IEEE Standards   What are Use Case and Use Case Narrative?   Relationship between Use Cases   How to write Use Cases?   Use Case Narrative Flows - Primary Flow, Alternative Flow,   Exceptional Flow   Activity Diagram, Class Diagram, E-R Model, Sequence Diagram, State Diagram, Collaboration Diagram	
Requirement Engineering Project with Cases – Phase 1	Business Process of existing system   GAP Analysis – PIECES Framework   Domain Properties and Stakeholders   Feasibility Study   Evaluation of Alternatives using Cost – Benefit Analysis	
Requirement Engineering Project with Cases – Phase 2	Use case Description and Use Case Diagram   Activity Diagram   What are Use Case and Use Case Narrative?   Relationship between Use Cases   How to write Use Cases?   Use Case Narrative Flows - Primary Flow, Alternative Flow, Exceptional Flow   Pre-condition, Post-condition, Exception handling and Triggers	
Requirement Engineering Project with Cases – Phase 3	Sequence Diagram   Class Diagram   Software Requirement Specification	
Requirements Management	RTM - Requirements Traceability Matrix   Requirements Change Management   Requirements Risk Management   Impact Analysis	

Topic	Content Covered
Scope Management	Different dimensions of scope   Managing Scope at different stages of the Project Product Scope and Project Scope   Issues in scope management   Measurement of Scope and Metrics
Risk Management	Steps in Risk Management   Risk Identification   Risk Analysis and Prioritization Risk Response – Strategy, Actions & Response Owners   Risk Monitoring and Control   Risk Management Documents
Estimation Management	Introduction to Estimation   The Importance of Estimation   What is Estimation?   The Estimation Process Overview   Problems with Estimations   Estimation Techniques
Customer Expectation Management	Importance of CEM   Traditional and modern view   Understanding Customer and Managing Expectations   Issues in Customer Expectation Management   Handling Difficult Situations   Expectation Management Life-Cycle
Quality Process Awareness	Quality Management System   Concept of Quality   Metrics and Measurements   Defect Preventions   Defect analysis tools and techniques
Business Communication Management	Communication: Introduction   Email Communication   Teleconference and Meetings   Assertiveness and Scenarios
Requirement Process, Planning and Management	Understanding IT project hierarchy   Project Charter and Requirements Process   RACI Matrix and Requirements Planning   Work Efforts & Estimations   Managing Requirements BA's plan to feed into Project Plan
Prototyping	Define Prototyping and Importance of prototyping   Types of Prototyping   Prototyping as methodology   User Interface Prototyping   Advantage and Disadvantages of Prototyping
BA Deliverables - Documentation and Templates	Business Requirement Document (BRD)   Use case document (USD)   Software Requirement Specification Document (SRS)   Change Request Process Document   Functional Requirement Specification (FSD)   Business Process Questionnaire Document Project Requirement Management and development process Document   Scope management Document   Requirement Traceability matrix document
UML Diagram	Use Case Diagram and Class Diagram   Sequence Diagram and Collaboration Diagram   Activity Diagram and State Diagram
Business Analysis Tools	Rational Requisite Pro   Microsoft Visio – UML Tool   Team Foundation Server (TFS)   JIRA – Agile Tool   SVN – Configuration Management Tool   Axure – Prototype Tool
Agile Methodologies	The Product Backlog Creation   High-level Project and Process Plan   Sprint Planning Meeting   The Sprint and Daily Scrum Meetings   Sprint Review Meeting   Sprint Retrospective   Next Sprint and Repeat   Post-Sprint Functional Testing by PO   Pre-release Testing prior to Release to Customer   Release to Customer
Business Analysis Process	Requirement Development Process – For New Development Project   Requirement Management Process – For Maintenance Project   Change Request (CR) Process
Software Project Management	What is Project Management?   Project Management Phases   Project Management Knowledge Areas   Project Management Tools
BABOK Structure – CBAP Certification Knowledge Areas	BABOK Introduction   BABOK Knowledge Areas   Business Analysis Planning   Enterprise Analysis   Requirement Elicitation   Requirement Analysis   Solution Assessment and Validation   Requirement Management and Communication
Business Analysis Perspectives	Agile Perspectives   Business Intelligence Perspectives   Information Technology Perspectives   Business Architecture Perspectives   Business Process Management Perspectives

Module 2		DATA SCIENCE WITH R
Topic	Content Covered	
Introduction of R	What and Why R?   Different flavors of R and R - Installation   Libraries in R Studio-Work Directory Setup	
Data Structures used in R	R-Data Types, Operators   R-Keywords and Exceptions ,Functions   R-Data Structures and R Interfaces	
Data Visualization using R	Line Plots, Bar Charts, Pie Chart and Histogram   Scatter Plots and Parallel Coordinates   Advanced Plotting and Other Plotting Packages	
Predictive Customer Analysis using R - Linear Regression	Linear Regression Analysis   Formulation of Bivariate and Multivariate Regression Model Mapping Regression with Real Time Example	
Bank Loan Modelling using R - Logistic Regression	Logistic Function   Single and Multiple Predictor Model   Determine Logistic Cut off   Estimated Equation for Logistic Regression	
Sales Promotion Effectiveness - Dimension Reduction using R - Factor Analysis	Factor Analysis Model   Principal Component Analysis(PCA) Method   Rotation Method Mapping Factor Analysis with Real Time Example	
Customer and Market Segmentation - Cluster Analysis using R	Cluster Analysis Introduction   Classification of Clustering Procedure   Hierarchical Clustering   Non Hierarchical Clustering	
Retail Analysis : Market Based Analysis - Association Rule using R software	Association Rule Introduction   Apriori Algorithm - Multiple Association Rules   Market Basket Analysis (MBA)   Application of Apriori Algorithm and Market Basket Analysis	
Customer Loyalty Analytics - Naïve Bayes Classification using R Software	Naïve Bayes Theorem   Characteristics of Naïve Bayes   Real Time Case study using Naïve Bayes   Advantage and Shortcoming of Naïve Bayes	
K - Nearest Neighbour using R software	K – Nearest Neighbour Algorithm   Choosing “K” and High “K” vs. Low “K”   Real Time case study using KNN   Advantage and Disadvantage of KNN	
Decision Trees using R software	Creation of Decision Tree   Entropy and Information Gain with Intuitions   Forward Pruning and Backward Pruning   Sub tree Replacement and Raising   Real time case study with Decision Tree	
Random Forest using R software	Ensample of Decision Tree	
Module 3		SQL DATABASE
Topic	Content Covered	
Fundamentals of SQL Database	Introduction   RDBMS   Constraints   Normalisation   Syntax   Operators   Database queries   Table queries   Indexes   Handling duplicates	

Module 4		DATA ANALYTICS
Topic	Content Covered	
Fundamental of Data Analytics	Data Analytics across Domains   What is Analytics?   Types of Analytics   AI vs ML vs DL vs DS	
Basics concepts in Statistics for Data Analytics	Introduction to statistics and Central Limit Theorem   Measures of Central Tendancies and Measures of Spread   Descriptive Statistics with Real Time Examples   Measuring Scales   Inferential Statistics with Real Time Examples	
Advanced concepts in Statistics for Data Analytics	Hypothesis Testing and Goodness of Fit test   Introduction to Statistical Tests   Statistical Test with Real Time Example   Analysis of Variance(ANOVA) & Analysis of Covariance (ANCOVA)   Probability Theory for Data Analytics   Types of Probability Distribution	
Module 5		DATA SCIENCE WITH PYTHON
Topic	Content Covered	
Python Fundamentals	Python Intro,IDE and Python Packages   Python Programming   Python Data Types - Dictionary, List and Set	
Python Packages	Numpy Packages - Array Handling and Manupulation   Pandas Packages - Dataframe and Loading Excel, CSV File   Matplotlib Packages - Line graph and Visualisation	
Data Visualisation Using Python	Histogram, Scatter Diagram, Box Plot and Bar Graph, Area Chart, Dual Axis, Array reshaping, reverse matrix, analysis	
Python - Control Structures	Python - Operators and String Manupulation   Control Structures(IF,IF-ELSE,IF-ELIF-ELSE, WHILE & FOR LOOP)	
Exporatory Data Analysis (EDA)	Python - Data Preparation Process   Python - Functions WITH and WITHOUT arguments Python - File Processing and Data Collection Methods	
Python - Predictive Analytics	Python - Time Series Analysis and Forecasting   Python - Simple Predictive Analysis	
Data Science Lifecycle	Data Science with Python   Data Science Application across Multiple Domain and Business Function   Data Science Project LifeCycle	
Data Science Prediction Algorithm	Multiple Predictive Model using Python   Python - Simple and Multiple Predictive Model in Practical   Python Correlation Analysis   Python Classifcation Model Building	
Data Science Classification Algorithm	Data Science - Experimental Design Analysis   Classification Technique - Discriminant Analysis   Data Science - Association Rule - Apriori Algorithm   Data Science - Building Recommendation System - (Market Basket Analysis)	
Data Science - Image Regognition	Data Architecture Design, Data Warehousing and it's Schema Design  Image Processing and Image Extraction   Image Processing and Object Recognition   Summarisation of Data Science Algorithm (Data Science Process)	
Module 6		MACHINE LEARNING
Topic	Content Covered	
Machine Learning Introduction	Machine Learning Introduction	
Supervised Learning - Regression Algorithm	Linear Regression   Logistics Regression   ANOVA and ANCOVA   Linear Discriminant Analysis	
Supervised Learning - Classification Algorithm	Naïve Bayes   K-Nearest Neighbour   SVM- Support Vector Machine   -Decision Tree and Random Forest	
Unsupervised Learning Algorithm	Factor Analysis   Cluster Analysis   Association Rule   Correlation	
Time Series	Time Series Analysis	

## Module 7 DEEP LEARNING

Topic	Content Covered
Deep Learning and Neural Networks Overview	Deep Learning Fundamentals   Working of Neural Networks   Gradient Descent and Back Propagation   Decision Tree   Activation Function
Tensorflow	Tensorflow Introduction
Keras Basics	Building Artificial Neural Networks (ANN)   Deep Learning-Overview   Deep Learning-ANN-classification
Computer Vision	Computer-Vision-opencv-part1-overview   Computer-Vision-opencv-part2-face_detection   Intro to CNN
Recurrent Neural Network	Introduction to RNN & Sequence prediction using RNN   Introduction to LSTM
Long short-term memory	Introduction to LSTM   Sequence prediction using LSTM   Applications in text analytics   Stock prediction   Time series data

## Module 8 NATURAL LANGUAGE PROCESSING

Topic	Content Covered
Natural Language Processing Basics	Basics of NLP   NLP- tokenisation   Removing Stop Words   Stemming & lemmatization   Parts of speech tagging   TFIDF vectorizer   Bag of words   Sentiment Analysis
Natural Language Processing Advanced	Text Classification with Linear Models   Language Modelling with Probabilistic Graphical Models and Neural Networks   Word Embeddings and Topic Models   Machine Translation and Sequence-To-Sequence Models
Speech Recognition	NLP-Speech-Recognition-and-Text-to-Speech
Reinforcement Learning	Introduction to Reinforcement Learning   Model-Based Reinforcement Learning (Dynamic Programming)   Model-Free Reinforcement Learning (SARSA, Monte Carlo, Q-Learning)   Approximate and Deep Reinforcement Learning (Deep Q-Learning)   Policy Gradient Reinforcement Learning   Advanced Topics on Exploration and Planning

## Module 9 DATA VISUALIZATION USING TABLEAU

Topic	Content Covered
Tableau Introduction	Line Plots and Bar Charts   Pie Chart and Histogram   Scatter Plots and Parallel Coordinates
Tableau – Geographic Location Mapping	Connecting Tableau to a Data File and CSV File   Creating Calculated Fields, Adding Colors and Labels   Time series, Aggregation, Filters and Level of Detail
Tableau Different types of joins	Working with Hierarchies, Joining and Blending Data   Dual Axis Charts, Creating Bins and Tree Map Chart   Creation of Dashboard and Storyline   Creating an Area Chart & Adding a Filter and Quick Filter   Understanding how LEFT, RIGHT, INNER, and OUTER Joins Work
Tableau Data Blending	Joining Data vs. Blending Data   Data Blending in Tableau   Creating Calculated Fields in a Blend
Tableau Storyline Creation	Time series, Aggregation and Filters   Working with Data Extracts in Tableau   Working with Time Series   Understanding Aggregation, Granularity
Tableau Data Interpreters and cleaning	Advanced Data Preparation   Data Interpreter and Pivot   Splitting a Column into Multiple Columns   Metadata Grid and Fixing Geographical Data Errors
Tableau Dashboard Concepts	Maps, Scatterplots   Joining Data in Tableau   Working with Hierarchies   Creating a Scatter Plot



Topic	Content Covered
Tableau Cluster Creation and Modelling	Cluster Analysis introduction  Classification of clustering procedure   Hierarchical clustering and non Hierarchical clustering
Tableau Regression Analysis	Linear Regression Analysis   Formulation of Regression Model   Conducting Bivariate and Multivariate Regression   Regression with Real Time Example
Tableau Step Up	Tool Tip Analysis and Grouping   Table Calculations, Advanced Dashboards, Storytelling

## Module 10

## BIG DATA

Topic	Content Covered
Introduction of Big Data	Introduction of Big Data
Hadoop	Linux Commands   HDFS Commands   <b>SQOOP Architecture and Hands-on</b> : Import data from Target RDBMS TO HDFS   Usecase: with and without Primary key and Incremental Load   Usecase: Import all tables at a time and Exclude Tables   Usecase: Creation of Sqoop Job and Use Condition   Usecase: Data Import and Export from RDBMS and Hive Table
HIVE Architecture and Hands-on	Different Types OF Tables In Hive and Partitioning   Partitioning and Bucketing   How to Perform Both Partitioning and Bucketing using one table   Joins(Reducer Side Joins and MapSide Joins)   HIVE: File Formats, Semi structured Data, Updation and Deletion, UDF and Complex Types
HBASE Architecture and Hands-on	Difference Between Hive,SQL and HBASE   How to create tables,insert,update and delete   How to import data from rdbms to HBASE using Sqoop   How to Load CSV DATA INTO HBASE TABLE   HIVE to HBASE INTEGRATION
PIG and MapReduce	PIG and MapReduce
Scala	Scala - Variables, In Built Functions   Scala - Control Structures and String Manipulations Scala - Collections, File and Exceptions Handling and Traits
SPARK vs MapReduce	Spark - Architecture, File Operations, Spark Shell   Spark - Spark Context Creation, Cache and Persist   Spark Project with Maven in Eclipse   RDD: Transformations and Actions and Data Loading   RDD: Key Value Pair, Operations and Spark Application with Spark Shell   Deploying Application With Spark-Submit   Spark-SQL: Introduction and Different File Formats   SPARK SQL: DataFrames, DAG, Lineage Graph, Cluster types   Optimizers, Structured Streaming,RDDs to Relations
SPARK Streaming	Spark Streaming - Introduction and Architecture   SparkStreaming vs Flume   Kafka Introduction and Architecture   Spark Streaming integration with Kafka Overview   Real Time Examples



IIBM Institute always strive for betterment in terms of content , in terms of delivery and in terms of grievance handling. Thankfully in the mid of my course, I got opportunity by IIBM Institute to place in AIG Business solution now I am a Research Analyst. A big Thanks to all team members of IIBM Institute & specially thanks to placement officer.

"Thanks for the opportunity."

**SHIVANGI PATEL**  
Research Analyst  
AIG BUSINESS SOLUTION

Module 11		POWER BI
Topic	Content Covered	
BI Introduction	Power BI services   Advantages of visual analytics	
Power BI Desktop	Installation Process of Power BI desktop and getting familiar with interface	
Working with Query Editor	Filters   Splitting columns   Groups   Merging   Conditional Columns	
Creating Visuals In Report View	Different types of visual features   Drill Down   Formatting Visuals	
Taking Project to cloud	How to export Desktop Reports to cloud service and explore my workspace, sharing with other	

# CAPSTONE PROJECTS

Data Analytics	Bank Loan Modeling solution execution
	Application of Machine Learning Algorithm in Attrition Project and its analysis
Machine Learning	Attribution analysis solution execution
	Bank Loan Modelling and its analysis
	Application of Machine Learning Algorithm in Bank Loan Modelling
	Merger and Acquisitions analytics
	LKP Project using Python
	Recommendation of new model
Artificial Intelligence	Telecom Churm case study using Sklearn
	Handwritten Digit classification using ANN
	Recommendation Engine
	Sentiment Analyser
	Building Chatbot
	SMS Spam Classifier
	Twitter Sentiment Analyser
Business Analysis	Online Recruitment Process
Data Visualization Tableau	Customer Loyalty Analytics and its Application
	Attrition Analysis and Bank Loan Modelling
Data Science using R	Solution- HR Analytics Attrition Analysis
	Merger and Acquisition

# MASTER PROGRAM IN BIG DATA ENGINEERING

## COURSE HIGHLIGHTS

- Video Tutorials : 230+ Hours
- Doubt Clearing Sessions : Yes
- LMS Capstone Projects : 24+
- In Class Projects : 15+
- No. Of Quiz : 2000+

## ELIGIBILITY

Fresh Graduates/ Diploma in any discipline.

## COURSE DURATION

9 Months

## CURRICULUM

**MODULE 1** Big Data fundamentals

**MODULE 2** Big Data Hadoop and Spark

**MODULE 3** SQL Database

**MODULE 4** Mongo DB

**MODULE 5** Amazon Web Services (AWS)

**MODULE 6** Business Analysis

**MODULE 7** Data Analytics

**MODULE 8** Data Science with Python

**MODULE 9** Machine Learning

**MODULE 10** Deep Learning

**MODULE 11** Natural Language Processing

**MODULE 12** Data Visualization using Tableau

**MODULE 13** Power BI

## COURSE FEES

**Lumpsum Fees** Rs. 55,000 + GST 18 % applicable

<b>Installment</b> Rs. 60,000 + GST 18 % applicable					
Registration Amount	EMI 1	EMI 2	EMI 3	EMI 4 + Exam Fees	EMI 5 + GST 18%
10,000	15,000	15,000	15,000	5,000 + 6,000	10,800

\*Exam Fees of 6000/- applicable for complete course.

\*EMI has to be paid every month. If not paid, fine of 500/- Rs. is applicable.

## CERTIFICATE AWARDED

• Master Program in Big Data Engineering

• Business Analyst Certificate



# CURRICULUM

## Module 1

## BIG DATA FUNDAMENTALS

Topic	Content Covered
Introduction of Big Data	Introduction of Big Data
Hadoop	Linux Commands
	HDFS Commands
	<b>SQOOP ARCHITECTURE AND HANDS-ON:</b> How Import data from Target RDBMS TO HDFS   Usecase1: With Primary Key and Without Primary Key   useCase2: Boundary Query Without columns and With Columns   Use Case3: Incremental Load   Usecase4: How to Import all tables at a time   Usecase5: How to Import all Tables with Exclude Tables   UseCase6: How to Create Sqoop Job   UseCase7 : How to Use \$Conditions in Sqoop   UseCase8: How to Import data from RDBMS to HIVE TABLE   Usecase9: How to Process Semi Structured data using Sqoop   Usecase10: Sqoop Export from HDFS to RDBMS

## Module 2

## BIG DATA HADOOP AND SPARK

Topic	Content Covered
Hadoop	<b>HIVE ARCHITECTURE AND HANDS-ON:</b> Different Types OF Tables In Hive   Partitioning   Different Types Of Partitioning   Bucketing   How to Perform Both Partitioning and Bucketing using one table   Joins (Reducer Side Joins and MapSide Joins)   How to Semi Structured Data using Hive   Different File Format In Hive   How to perform Updates and Deletes in Hive   Hive Complex Types   Hive Udf <b>HBASE ARCH AND HANDS-ON :</b> Differnce Between Hive,SQL and HBASE   How to create tables,insert,update and delete How to import data from rdbms to HBASE using Sqoop   How to Load CSV DATA INTO HBASE TABLE   HIVE to HBASE INTEGRATION <b>PIG AND MAPREDUCE</b> <b>SCALA</b> What Is Scala   Differnce between JAVA and SCALA   SCala Variables   For,While and Do while Loop   Condiotional Statements   String,String Methods,String Interpolation   Functions   Higher Order Functions   Anonymous Functions   Closure Function   Currying Function   Collections(Array,set,tuple,map and list)   File Handling   Exception Handling Traits
Spark	Spark vs Map Reduce   Architecture of Spark   Spark Shell introduction   Creating Spark Context   Spark Project with Maven in Eclipse   Cache and Persist in Spark   File Operations in Spark <b>RDD:</b> What is RDD   Transformations and Actions   Loading data through RDD   Key-value pair RDD   Pair RDD oeprations   Running spark application with Spark-shell   Deploying Application With Spark-Submit <b>Spark-SQL:</b> Introduction to Spark SQL   Hive vs SparkSQL   Processing different fileformats using Spark SQL   DataFrames   DAG Lineage Graph   Cluster types <b>Spark Streaming:</b> Introduction to Spark Streaming   Architecture of spark Streaming   SparkStreaming vs Flume   Introduction to Kafka   Kafka Architecture   Spark Streaming integration with Kafka Overview   Real Time Examples

Module 3		SQL DATABASE
Topic	Content Covered	
Fundamentals of SQL Database	Introduction   RDBMS   Constraints   Normalisation   Syntax   Operators   Database queries   Table queries   Indexes   Handling duplicates	
Module 4		MONGO DB
Topic	Content Covered	
MongoDB	Introduction   Advantages   Environment   Data Modelling   Database   Collections   Documents   Records   Indexing   Aggregation   Replication   Sharding   Backup   Deployment   Relationships   Database references   Covered queries   Analyzing queries   Atomic Operations   Advanced Indexing   Indexing limitations   ObjectId   MapReduce   Text Search   Regular Expression   RockMongo   GridFS   Capped Collection   Auto- increment sequence	
Module 5		AMAZON WEB SERVICES (AWS)
Introduction to AWS	Historical Perspective of DataCenters   Datacenter Components	
Foundational and Computer Services	Learn why we need servers   compute power   and security Explore AWS compute services like Elastic Cloud Compute (EC2)   Virtual Private Cloud (VPC)   Lambda for serverless framework	
Storage and Content Delivery	Learn why we need storage and content delivery in the cloud I Learn storage services like S3, DynamoDB, Relational Database Service (RDS) il and Cloud Front I Create a Dynamo   DB table I launch a MySQL databaseinstance and create a CloudFront distribution	
Security	Learn the importance of security in the cloud I See Identity & Access Management (IAM) in action I Secure applications using IAM users, groups, and policies	
AWS Management	Learn why we need logging, auditing and resource management in the cloud I Understand services like Cloud Watch, CloudFormation, and the AWS Command Line	
Module 6		BUSINESS ANALYSIS
Topic	Content Covered	
BA Introduction and Fundamentals	Business Analyst – Who, What, Why?   BA – qualities, skills, roles, responsibilities   Fundamentals of Business Analysis   Hierarchical Structure of IT Team   IIBA, BABOK, CBAP, CCBA Overview   CMMI Overview   Project Stakeholder   Types of Stakeholder   Software Project and Types of Software Project   Software Contract and Types of Software Contract	
Software Development Life Cycle (SDLC)	Introduction of SDLC   Need of a BA in SDLC   Phases of SDLC   "SDLC Methods   --> Waterfall Model and Agile, Scrum   --> Iterative and Incremental  --> V Model and Spiral Model"  "SDLC --> Pre-requisites and Activities   -->Common Criteria and Deliverables"   Software Maintenance lifecycle model  Software testing lifecycle model	
Requirement Engineering	Why do we need good Requirements   Why do Project Fail?   Importance of Requirement – Statistics   What is Requirements Engineering   Role of a Business Analyst	

Topic	Content Covered
Requirements	What are requirements? And Characteristics of Requirements   Types of Requirements   Business Requirements   User Requirements and System Requirements   Functional Requirements and Non-Functional Requirements Implementation Requirement and UI Requirements
Requirements Process Flow and Requirements Framework	Initial Exploration   Form Business Requirements   Provide Solution to satisfy Business Requirements   Create Functional Specifications/Use Cases   Validate Requirements with Customer   Form SRS and Seek Approval   Requirements Framework
Requirements Elicitation	Sources of Requirement Elicitation   Skills for Requirement Elicitation   Stakeholder Identification   Surveys and Questionnaire   Interviewing and Focus Group Interviews   Brainstorming and Reverse Engineering   Prototyping and Wire Frames   JAD – Joint Application Development   Observation and Task Analysis   Domain Analysis and Persona Challenges in Requirement Elicitation
Requirements Analysis	Classifying and Prioritizing Requirements   Fish Bone Diagram – Causal Effect   Pareto's Diagram – 80:20 Rule   Moscow Prioritization   Kano Analysis   Requirements Allocation and Validation   Requirements Pre-Review and Review   Requirements Walkthrough and Sign Off
Requirements Specification	How to write Business Requirement document?   How to write Software Requirement specification   Introduction to Software Requirement Specification   Understanding SRS syntax with IEEE Standards   What are Use Case and Use Case Narrative?   Relationship between Use Cases   How to write Use Cases?   Use Case Narrative Flows - Primary Flow, Alternative Flow,   Exceptional Flow   Activity Diagram, Class Diagram, E-R Model, Sequence Diagram, State Diagram, Collaboration Diagram
Requirement Engineering Project with Cases – Phase 1	Business Process of existing system   GAP Analysis – PIECES Framework   Domain Properties and Stakeholders   Feasibility Study   Evaluation of Alternatives using Cost – Benefit Analysis
Requirement Engineering Project with Cases – Phase 2	Use case Description and Use Case Diagram   Activity Diagram   What are Use Case and Use Case Narrative?   Relationship between Use Cases   How to write Use Cases?   Use Case Narrative Flows - Primary Flow, Alternative Flow, Exceptional Flow   Pre-condition, Post-condition, Exception handling and Triggers
Requirement Engineering Project with Cases – Phase 3	Sequence Diagram   Class Diagram   Software Requirement Specification
Requirements Management	RTM - Requirements Traceability Matrix   Requirements Change Management   Requirements Risk Management   Impact Analysis
Scope Management	Different dimensions of scope   Managing Scope at different stages of the Project Product Scope and Project Scope   Issues in scope management   Measurement of Scope and Metrics
Risk Management	Steps in Risk Management   Risk Identification   Risk Analysis and Prioritization Risk Response – Strategy, Actions & Response Owners   Risk Monitoring and Control   Risk Management Documents
Estimation Management	Introduction to Estimation   The Importance of Estimation   What is Estimation?   The Estimation Process Overview   Problems with Estimations   Estimation Techniques
Customer Expectation Management	Importance of CEM   Traditional and modern view   Understanding Customer and Managing Expectations   Issues in Customer Expectation Management   Handling Difficult Situations   Expectation Management Life-Cycle
Quality Process Awareness	Quality Management System   Concept of Quality   Metrics and Measurements   Defect Preventions   Defect analysis tools and techniques
Business Communication Management	Communication: Introduction   Email Communication   Teleconference and Meetings   Assertiveness and Scenarios

Topic	Content Covered
Requirement Process, Planning and Management	Understanding IT project hierarchy   Project Charter and Requirements Process   RACI Matrix and Requirements Planning   Work Efforts & Estimations   Managing Requirements BA's plan to feed into Project Plan
Prototyping	Define Prototyping and Importance of prototyping   Types of Prototyping   Prototyping as methodology   User Interface Prototyping   Advantage and Disadvantages of Prototyping
BA Deliverables - Documentation and Templates	Business Requirement Document (BRD)   Use case document (USD)   Software Requirement Specification Document (SRS)   Change Request Process Document   Functional Requirement Specification (FSD)   Business Process Questionnaire Document   Project Requirement Management and development process Document   Scope management Document   Requirement Traceability matrix document
UML Diagram	Use Case Diagram and Class Diagram   Sequence Diagram and Collaboration Diagram   Activity Diagram and State Diagram
Business Analysis Tools	Rational Requisite Pro   Microsoft Visio – UML Tool   Team Foundation Server (TFS)   JIRA – Agile Tool   SVN – Configuration Management Tool   Axure – Prototype Tool
Agile Methodologies	The Product Backlog Creation   High-level Project and Process Plan   Sprint Planning Meeting   The Sprint and Daily Scrum Meetings   Sprint Review Meeting   Sprint Retrospective   Next Sprint and Repeat   Post-Sprint Functional Testing by PO   Pre-release Testing prior to Release to Customer   Release to Customer
Business Analysis Process	Requirement Development Process – For New Development Project   Requirement Management Process – For Maintenance Project   Change Request (CR) Process
Software Project Management	What is Project Management?   Project Management Phases   Project Management Knowledge Areas   Project Management Tools
BABOK Structure – CBAP Certification Knowledge Areas	BABOK Introduction   BABOK Knowledge Areas   Business Analysis Planning   Enterprise Analysis   Requirement Elicitation   Requirement Analysis   Solution Assessment and Validation   Requirement Management and Communication
Business Analysis Perspectives	Agile Perspectives   Business Intelligence Perspectives   Information Technology Perspectives   Business Architecture Perspectives   Business Process Management Perspectives

## Module 7 DATA ANALYTICS

Topic	Content Covered
Fundamental of Data Analytics	Data Analytics across Domains   What is Analytics?   Types of Analytics   AI vs ML vs DL vs DS
Basics concepts in Statistics for Data Analytics	Introduction to statistics and Central Limit Theorem   Measures of Central Tendencies and Measures of Spread   Descriptive Statistics with Real Time Examples   Measuring Scales   Inferential Statistics with Real Time Examples
Advanced concepts in Statistics for Data Analytics	Hypothesis Testing and Goodness of Fit test   Introduction to Statistical Tests   Statistical Test with Real Time Example   Analysis of Variance(ANOVA) & Analysis of Covariance (ANCOVA)   Probability Theory for Data Analytics   Types of Probability Distribution

## Module 8 DATA SCIENCE WITH PYTHON

Topic	Content Covered
Python Fundamentals	Python Intro,IDE and Python Packages   Python Programming   Python Data Types - Dictionary, List and Set
Python Packages	Numpy Packages - Array Handling and Manipulation   Pandas Packages - Dataframe and Loading Excel, CSV File   Matplotlib Packages - Line graph and Visualisation

Topic	Content Covered
Data Visualisation Using Python	Histogram, Scatter Diagram, Box Plot and Bar Graph, Area Chart, Dual Axis, Array reshaping, reverse matrix, analysis
Python - Control Structures	Python - Operators and String Manipulation   Control Structures(IF,IF-ELSE,IF-ELIF-ELSE, WHILE & FOR LOOP)
Exploratory Data Analysis (EDA)	Python - Data Preparation Process   Python - Functions WITH and WITHOUT arguments Python - File Processing and Data Collection Methods
Python - Predictive Analytics	Python - Time Series Analysis and Forecasting   Python - Simple Predictive Analysis
Data Science Lifecycle	Data Science with Python   Data Science Application across Multiple Domain and Business Function   Data Science Project LifeCycle
Data Science Prediction Algorithm	Multiple Predictive Model using Python   Python - Simple and Multiple Predictive Model in Practical   Python Correlation Analysis   Python Classification Model Building
Data Science Classification Algorithm	Data Science - Experimental Design Analysis   Classification Technique - Discriminant Analysis   Data Science - Association Rule - Apriori Algorithm   Data Science - Building Recommendation System - (Market Basket Analysis)
Data Science - Image Recognition	Data Architecture Design, Data Warehousing and it's Schema Design  Image Processing and Image Extraction   Image Processing and Object Recognition   Summarisation of Data Science Algorithm (Data Science Process)

## Module 9

## MACHINE LEARNING

Topic	Content Covered
Machine Learning Introduction	Machine Learning Introduction
Supervised Learning - Regression Algorithm	Linear Regression   Logistics Regression   ANOVA and ANCOVA   Linear Discriminant
Supervised Learning - Classification Algorithm	Naïve Bayes   K-Nearest Neighbour   SVM- Support Vector Machine   -Decision Tree and Random Forest
Unsupervised Learning Algorithm	Factor Analysis   Cluster Analysis   Association Rule   Correlation
Time Series	Time Series Analysis

## Module 10

## DEEP LEARNING

Topic	Content Covered
Deep Learning and Neural Networks Overview	Deep Learning Fundamentals   Working of Neural Networks   Gradient Descent and Back Propagation   Decession Tree   Activation Function
Tensorflow	Tensorflow Introduction
Keras Basics	Building Artificial Neural Networks (ANN)   Deep Learning-Overview   Deep Learning-ANN-classification
Computer Vision	Computer-Vision-opencv-part1-overview   Computer-Vision-opencv-part2-face_ detection   Intro to CNN
Recurrent Neural Network	Introduction to RNN & Sequence prediction using RNN   Introduction to LSTM
Long short-term memory	Introduction to LSTM   Sequence prediction using LSTM   Applications in text analytics   Stock prediction   Time series data



Module 11 NATURAL LANGUAGE PROCESSING	
Topic	Content Covered
Natural Language Processing Basics	Basics of NLP   NLP- tokenisation   Removing Stop Words   Stemming & lemmatization   Parts of speech tagging   TFIDF vectorizer   Bag of words   Sentiment Analysis
Natural Language Processing Advanced	Text Classification with Linear Models   Language Modelling with Probabilistic Graphical Models and Neural Networks   Word Embeddings and Topic Models   Machine Translation and Sequence-To-Sequence Models
Speech Recognition	NLP-Speech-Recognition-and-Text-to-Speech
Reinforcement Learning	Introduction to Reinforcement Learning   Model-Based Reinforcement Learning (Dynamic Programming) Model-Free Reinforcement Learning (SARSA, Monte Carlo, Q-Learning)   Approximate and Deep Reinforcement Learning (Deep Q-Learning)   Policy Gradient Reinforcement Learning   Advanced Topics on Exploration and Planning

Module 12 DATA VISUALIZATION USING TABLEAU	
Topic	Content Covered
Tableau Introduction	Line Plots and Bar Charts   Pie Chart and Histogram   Scatter Plots and Parallel Coordinates
Tableau – Geographic Location Mapping	Connecting Tableau to a Data File and CSV File   Creating Calculated Fields, Adding Colors and Labels   Time series, Aggregation, Filters and Level of Detail
Tableau Different types of joins	Working with Hierarchies, Joining and Blending Data   Dual Axis Charts, Creating Bins and Tree Map Chart   Creation of Dashboard and Storyline   Creating an Area Chart & Adding a Filter and Quick Filter   Understanding how LEFT, RIGHT, INNER, and OUTER Joins Work
Tableau Data Blending	Joining Data vs. Blending Data   Data Blending in Tableau   Creating Calculated Fields in a Blend
Tableau Storyline Creation	Time series, Aggregation and Filters   Working with Data Extracts in Tableau   Working with Time Series   Understanding Aggregation, Granularity
Tableau Data Interpreters and cleaning	Advanced Data Preparation   Data Interpreter and Pivot   Splitting a Column into Multiple Columns   Metadata Grid and Fixing Geographical Data Errors
Tableau Dashboard Concepts	Maps, Scatterplots   Joining Data in Tableau   Working with Hierarchies   Creating a Scatter Plot

Module 13 POWER BI	
Topic	Content Covered
BI Introduction	Power BI services   Advantages of visual analytics
Power BI Desktop	Installation Process of Power BI desktop and getting familiar with interface
Working with Query Editor	Filters   Splitting columns   Groups   Merging   Conditional Columns
Data Modelling	Cardinality   Cross Filters   DAX Functions
Creating Visuals In Report View	Different types of visual features   Drill Down   Formatting Visuals
Taking Project to cloud	How to export Desktop Reports to cloud service and explore my workspace, sharing with other

# CAPSTONE PROJECTS

Data Analytics	Bank Loan Modeling solution execution
	Application of Machine Learning Algorithm in Attrition Project and its analysis
Machine Learning	Attribution analysis solution execution
	Bank Loan Modelling and its analysis
	Application of Machine Learning Algorithm in Bank Loan Modelling
	Merger and Acquisitions analytics
	LKP Project using Python
	Recommendation of new model
Artificial Intelligence	Telecom Churn case study using Sklearn
	Handwritten Digit classification using ANN
	Recommendation Engine
	Sentiment Analyser
	Building Chatbot
	SMS Spam Classifier
	Twitter Sentiment Analyser
Business Analysis	Online Recruitment Process
Data Visualization Tableau	Customer Loyalty Analytics and its Application
	Attrition Analysis and Bank Loan Modelling
Data Science using R	Solution- HR Analytics Attrition Analysis
	Merger and Acquisition
Mongo DB	Create Database for Content Management System
	Create Database for Product Catalog
Amazon Web Services	AWS Project– Account creation, Navigating AWS console, Creating a project



The team in IIBM is really professional and really helpful. I would like to take this opportunity to thank the entire academic team of IIBM who are working for correction of assignments.etc. A special thanks to the administration department for all the support remote support extended. Really, I would definitely recommend the same to all who are looking to develop their education profile .

**RABI NARAYAN JENA**  
**Sr. Accountant**  
**CENTURY EXTRUSIONS LIMITED**

# IIBM INSTITUTE PLACEMENT ACTIVITIES

## 1. Job Mailer facility

The placement cell's Job Mailer facility delivers weekly job opportunities through their emails based on the course the candidate completed. It helps in sending applications/sorting job interviews for career progression.

## 2. Live Placement Orientation Sessions

Live interactive sessions by IIBM mentors to assist the candidates on job search and to help them to understand the nuances of getting quick success in the placement procedure. Live sessions are conducted on Sundays and Mondays by their placement experts.

## 3. Career Assistance videos

IIBM Institute Placement Department archived more than 50+ Hours of Recorded course on motivation and career orientation as a free add-on. The video course is offered by many recognized corporate veterans to help the students to build excellent and contemporary careers.

## 4. LinkedIn Profile

Nowadays, LinkedIn plays a vital role in talent hunt by the employers. The scope of it can be optimally extracted only by a career professional. IIBM's career/placement cell guides the students to create an impactful LinkedIn profile to get noticed easily by the Employers.

## 5. Promotional videos

Promotional videos are mailed to all IIBM India students, and these videos will help students to stay focused on the road to success, new job opportunities, and personal grooming. These videos will allow students to stay charged and energized until they crack the job challenge.

## 6. Personalized Guidance by IIBM Institute

The placement officers of IIBM Institute offers their industry experience to help the students get the job. Personalized counselling helps the students to secure a job based on their skill level, basic education qualification and other competencies and preferences. and resume. The guidance can help in getting a better foothold in the industry.

## 7. Mock interviews

IIBM's recruitment experts conduct mock sessions replicating a professional interview session, and it will prepare the candidates to face the most challenging interview sessions. This practice session will help them to finetune the body language, quick answering/responding ability, brush up on your communication skill, etc.

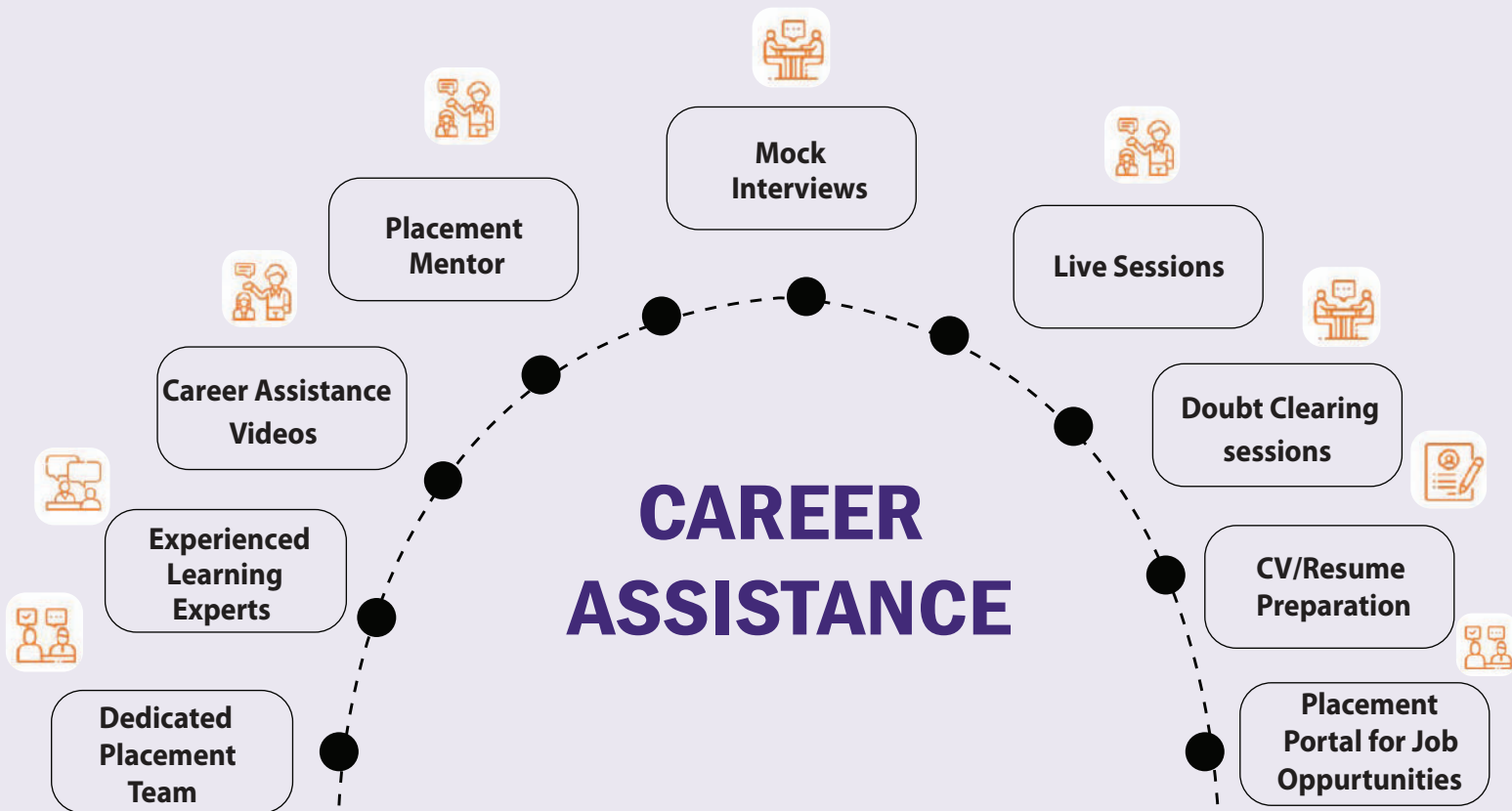
## 8. Resume Preparation

Creating a well-formatted resume helps in pulling the attention of the employers. IIBM offers professional guidance and training for creating a well-formatted resume to attract the best review/impression from potential employers.



# CAREER DEVELOPMENT

## 100 % JOB PLACEMENT



# MENTORSHIP

Our Industry mentor and a dedicated placement team will guide you with :

### ACADEMIC ASSISTANCE

- Provide unparalleled support and guidance.
- Help execute in- class assignments and case studies.
- Discuss & identify learning gaps and other solutions such as refresher sessions and one-on-one project feedback.

### CAREER ASSISTANCE

- Maintain close interaction with students during the career assistance and placements phase of the program.
- Talk you through industry insights and best practices.
- Provide you with interview tips and job search advice.

### MONITOR PROGRESS

- Set learning Goals.
- Discuss your progress status with trainers and other industry mentors on a regular basis to ensure consistent advancement.

# PROGRAM FACULTY & TRAINERS

## FACULTY AND TRAINERS



**BARUN KUMAR  
MISHRA**

Data Science , Machine Learning , Tableau , SQL

**Qualifications** : MBA in Finance & IT , Bachelor in Computer Application



**DINESH BABU-R**

Urban Pro Excellence Award Winner in Data Science Professional) Senior Business Analyst in the MNC, Part time , providing Business Analysis as well as Data Analysis Training to both Indian as well as overseas students.

**Qualifications** : B.Tech and MBA ( Finance & Operation ), Ph.D in Data Analysis.



**GANESH BHURE**

11 years working experience in various training assignments on Python, Machine Learning, Data Analytics, Artificial Intelligence.

**Qualifications** : Management LDP Program, B. Tech./B.E. (Electronics & Telecommunication)



**SURYA**

9.5 years IT experience in Big Data Hadoop and PERL as a Developer, 5.5 years of comprehensive experience as Big Data developer, Practical exposure and strong knowledge in Big data management.

**Qualifications** : Master Of Computer Applications (M.C.A), B.Sc. (Electronics).

## PLACEMENT MENTORS



**ANOOP MATHEW**

He has trained more than 500 teachers on Engineering Pedagogy and Digital Transformation. He guided nearly 60 PG projects and 40 UG projects. He dealt teaching engineering to approximately 1500 students in his teaching career.

**Qualifications** : M.Tech (power electronics), MBA-HR, PhD in power quality improvement



**DEVENDRA KUMAR**

He is an extra ordinary performer in the field of Training & Placements from last 8 years . He has worked with many well known colleges/Universities, Has got exceptional performance award in the domain of students career counseling and mentoring. With high level of networking in corporates.

**Qualifications** : M.B.A(Marketing & Finance )

# DIVERSE JOB POSITIONS

Senior Business Analyst

Data Science Engineer

Data Scientist

Analytics Consultant

Business Analyst

Senior Data Scientist













Machine Learning Engineers

Manager Analytics

Data Architect

Business Intelligence Analyst

## IIBM CANDIDATES WORKING IN COMPANIES BELOW

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