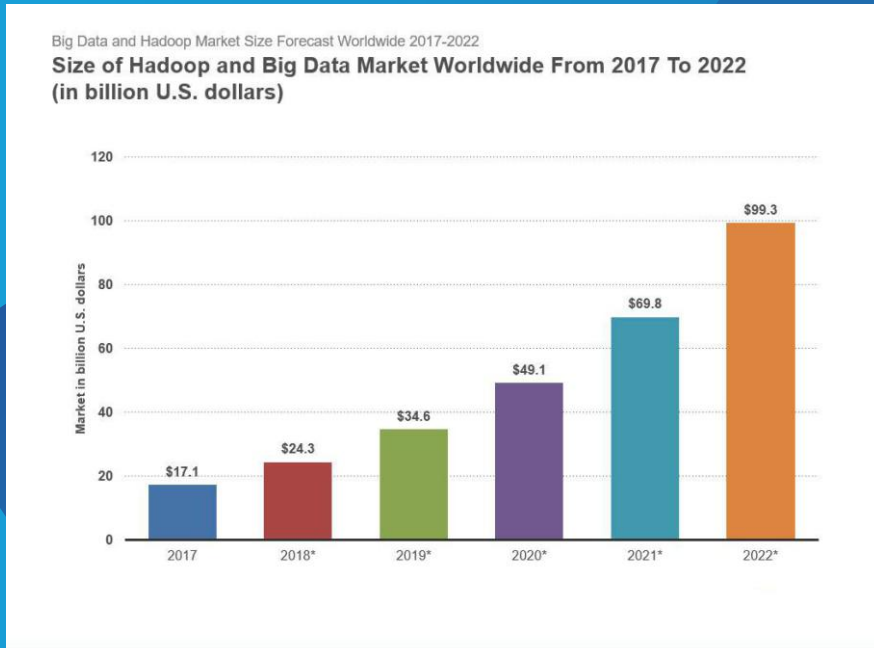


PG EXECUTIVE CERTIFICATION IN DATA SCIENCE



DATA SCIENCE & INDUSTRY TRENDS

Data scientist is one of the most trending job titles in the current marketplace. Without the evolution of Data Science, organizations won't be able to collect all the valuable data and the talent shortage in the domain makes it even more difficult for any organization to hire right Data Scientists for their overall growth and development.



Amazon is a wonderful example of how helpful collected data can be for the brand as well as its consumers. Amazon's data sets keeps a reminder of what the customer has purchased, what they've paid for, and what they last searched. This helps Amazon as a brand to provide customized homepage views, fitting the needs of its customers. For example, if your last search was about a watch, shoes and bags, then Amazon will restrict its ads or product recommendations to your needs instead of popping other things on your screen.

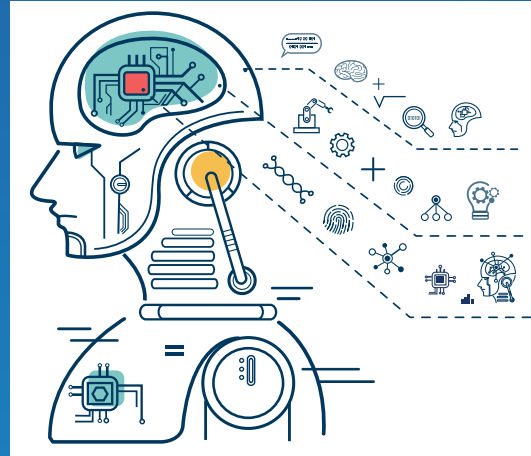
In the recent data shared by McKinsey Global Institute, they found that big data can increase a retailer's profit margin by 60 percent, and "services enabled by personal-location data can allow consumers to capture \$600 billion in economic surplus," meaning they are able to purchase a good or service for less than they were expecting.

In a 2015 speech, Economist and Freakonomics author Steven Levitt stated that CEOs know what they are missing out on the importance of Big Data, but they do not have the right resources available at the moment to perform the tasks. He said, "I really do believe still that the combination of collaborations with firms' big data and randomization is absolutely going to be at the center of what economics is and what other social sciences are going forward."

Data Scientists tend to handle a variety of important tasks, from collecting all the data to cleansing and organizing the enormous yet varied data so that it can be used effectively by the organizations. The role of a data scientist also includes designing and testing various algorithms, building and deploying machine learning-based solutions for smooth functioning, analyzing data for patterns and communicating findings to business stakeholders.

DATA SCIENCE & INDUSTRY TRENDS

MDI Group has come up with an exclusive P.G. Programme for working professionals who are willing to shift their career into Data Science. The programme is divided into three stages; Executive Development Programme in Business Analytics, Executive Development Programme in Machine Learning & PG Certification Programme in Data Science; you will receive



a certification after clearing each stage.

Pursuing a career in data science is a smart move, not because it is trending at the moment but also because of the talent scarcity in the domain, which also leads to great pay.

“Data scientists are highly educated—88 percent have at least a master’s degree and 46 percent have PhDs—and while there are notable exceptions, a very strong educational background is usually required to develop the depth of knowledge necessary to be a data scientist,” reports KDnuggets, a leading site on Big Data.



TOOLS USED





ABOUT MDI MURSHIDABAD

Management Development Institute (MDI) was set up as an autonomous body in 1973 in collaboration with KFW, West Germany, and with the active support of the Industrial Finance Corporation of India (IFCI)

One of the top Business Schools of India, MDI's Post Graduate Program in Management (PGPM) has been awarded A grade by the National Board of Accreditation of the All India Council for Technical Education (AICTE). It is the first B-School with global accreditation (AMBA), UK. Currently MDI offers a 2 year Post Graduation in Management (PGPM), Human Resources (PGPHR), and International Management (PGPIM). MDI also offers a 3 year Executive Post Graduate Program in Management, Fellow Program in Management (FPM), Executive Fellow Program in Management (EFPM) and Post Graduate Programme in Energy Management.

ABOUT NULEARN

Welcome to Nulearn, an organization which carefully traces the needs of the individuals and organizations, and curates resources to meet their skill gaps. We take accountability for pouring our education system forward to the assistance of all our participants and providing best-in-class services. This is accomplished by our constant focus on quality, consistency, strength, career, value and customer service. We always exercise ethical business practices and maintain respect for every individual. Our State of the art LMS (Learning Management system) with cutting-edge features ensures a quality learning experience. The LMS combines the support of classroom learning with the flexibility of online Education.





NULEARN CEO's MESSAGE

Advancement and innovation have always been my ultimate goals. In this industry, it has always been a challenge to introduce new courses and form a community. Being able to deliver your customer and build a relationship with them is another important aspect we need to focus on. In today's world of technology, my main focal point is to work on the process of implementation. The idea is to make the organization customer friendly and being able to start a revolution by building the strongest customer-support system to make it more accessible for the professionals who are willing to grow in their respective careers.

As a leader, I have courage to fulfill my vision, but that comes from sincerity, honesty and passion towards my work & team not from my position.



MDI DIRECTOR's MESSAGE

Management Development Institute (MDI), Murshidabad stands for academic excellence in Management Programme, a legacy established over years of outstanding performance.

MDI Murshidabad provides an excellent learning ecosystem which allows the students to go for various live projects & research and learn how to implement the best of ideas with limited available resources. These practices imbibe a sense of responsibility in the students and they live by the basic rule of "Give more than you take from the society." I take this opportunity to extend a cordial invitation to your esteemed organization to visit the institute and gauge the budding professionals who are full of zeal and enthusiasm. We would like to thank industry professionals for their constant support & cooperation extended to MDI Murshidabad and look forward to strengthen the relationship.



Prof. (Dr.) Atmanand

Director, MDIM and Director (Additional charge), MDI Gurugram



PROGRAMME OBJECTIVES

This course acquaints students with the study of Business Analytics/Data Science, incorporating those with no prior analytics experience. You'll figure out how to distinguish the perfect scientific model for their particular needs; and comprehend legitimate and solid approaches to gather, examine, visualize, and utilize in decision making that will help you to make strategic decisions based on data.

STAGE I - Executive Development Programme in Business Analytics

The course is designed to introduce Analytics and its role in organizations. Understanding binary classification & linear regressions, along with an introduction to model building and why it is essential for business development. Project assessment at the end of the course will help the faculty evaluate your performance, on the basis of which you will be eligible for Stage 2 of the program and will receive Certification into Business Analytics.

STAGE II - Executive Development Programme in Machine Learning

The course has been designed professionally for aspiring Data Scientists. The curriculum is structured carefully focusing on in-depth knowledge about Python Essentials & Machine Learning. How the programming language can help you learn complex theory, algorithms and coding libraries. Step into the world of Machine Learning & get one-step closer towards becoming Data Scientist. Project assessment at the end of the course will help the faculty evaluate your performance, on the basis of which you will be eligible for the final stage of the program and will receive Certification into Machine Learning.

STAGE III - Post Graduate Executive Certification in Data Science

The Post Graduation Executive Certification in Data Science with MDI is specifically designed for working professionals, who are willing to upgrade their career as a Data Scientist. With the successful completion of the first two stages i.e. Certification into Business Analytics & Machine Learning; the third stage helps you accelerate your entry into Data Science careers. Focusing majorly on languages and advanced tools like Python, R, Tableau & SPSS, the curriculum is a perfect blend of theoretical and practical knowledge. The course ends with a mandatory three days campus visit and Capstone Project, on the basis of which your performance will be evaluated by the senior faculty panel of MDI.



PROGRAMME HIGHLIGHTS



PG EXECUTIVE CERTIFICATE IN DATA SCIENCE

The programme offers three stages, Executive Development in Business Analytics, Executive Development in Machine Learning & PG Executive Certification in Data Science. Earn certification after successful completion of each stage.



CAREER GUIDANCE AND JOB SUPPORT

Participants will have access to IT Job fairs, webinars, mentoring support, resume building, preparation for mock interviews and Pro Membership of IIMJobs



INDUSTRY RELEVANT CURRICULUM

The curriculum combines Academic excellence and Industry Relevance to facilitate the participants learn basics of Analytics and Data Science, followed by in depth and advance level of statistical and quantitative analysis to help organizations in taking tough business decisions.



HANDS ON EXPOSURE ON TOOLS

An integral part of the learning experience is the use of Analytics tools wherein the Participants get hands-on exposure to, R, Tableau, Python, and Advanced Excel.



OPPORTUNITY TO PUBLISH YOUR RESEARCH

It is a great opportunity for professionals to get their research published in the papers.



MDI ALUMNI STATUS

On successful completion of the programme, Institute shall grant "MDI Alumni Status" to the participant.



LEARN FROM INDIA'S TOP-NOTCH FACULTY

Get a chance to train under India's renowned mathematician Dr. K. R. R. Gandhi & Dr. Emandi Sankara Rao who is currently serving as MD & CEO of IFCI Ltd, a Government of India Undertaking.



LIVE & INTERACTIVE WEEKEND CLASS

Blended learning programme with live & interactive sessions that provide a "real" classroom experience in a virtual environment.



FLEXIBLE PEDAGOGY

The program consists of 180 hours of online and offline sessions delivered by MDI faculty panel and senior professionals from the field of analytics. A combination of Cases, Exercises, Lectures, Project Work and Hands-on Practice using analytics tools will be used.



MINI CONVOCATION

All the students will have a mini convocation after the successful completion of the PG diploma



CAMPUS VISIT

All Participants will get an opportunity to attend 3 days campus visit after the completion of the course.



PROGRAMME OUTLINES

STAGE I - Executive Development Programme in Business Analytics

Understanding Analytics and its Role in the Organizations

- Course Brief & Expectations
- Intro to AI
- Introduction and Background of Data Analytics

Analytics Essential for Beginners

- Charting
- Arithmetic
- Functions
- Ordered Pairs
- Sorting
- Solver Plug-in

Binary Classification

- Confusion Matrix
- Costs Determine Optimal Threshold
- Finding Positive and Negative Predictive Values
- Area Under the Curve
- Several input Variables
- Practice

Data Measures

- Quantifying the Informational Edge
- Probability
- Entropy of a Guessing Game
- Dependence and Mutual Information
- The Monty Hall Problem
- Practice

Linear Regression

- Introducing the Gaussian & Standardisation
- Standard Normal Probability Distribution
- Finding Probabilities from Z- scores
- Central Limit Theorem
- Algebra
- Markowitz Portfolio Optimization
- X and Y Linear Regression
- Standardization Simplifies Linear Regression
- Error in Linear Regression
- Story from Linear Regression
- Practice

Model Building +

- Describing Histograms and Probability Distributions Functions
- Important and Frequently Encountered PDFs
- Linear Regression with several input Variable
- Discussion on Over-fitting

Inferential Statistics

Hypothesis Testing

- One and Two Group Means
- Categorical Data
- More Than Two Group Means



PROGRAMME OUTLINES

STAGE I - Executive Development Programme in Business Analytics

Exploratory Data Analysis

- Quantitative Data
- T-test
- ANOVA
- Correlation
- Chi-squared Tests

Regression (Multi)

- Linear
- Multi

Case study and Project Work

- Building Binary Classification Model
- Comparison between Gain of Alternative Data and Models
- Profitability Instead of Default
- Modeling Default Risk and Customer Profitability

STAGE II - Executive Development Programme in Machine Learning

Python Essentials -I

- Introduction & Installation
- Python for Data Analysis
- Python for Data Analysis- II
- Python for Data Analysis- III
- Python for Data Analysis - IV

Python Essentials -II

- Math for Data Science

Machine Learning - I

- Algorithms
- Supervised Learning
- Linear Regression and Logistic Regression
- K-Nearest Neighbor (KNN)
- Naïve Bayes Classifier
- Unsupervised Learning

Machine Learning - II

- Random Forest - I
- Random Forest - II
- Random Forest - III
- Support Vector Machine (SVM)- I
- Support Vector Machine (SVM)- II
- Support Vector Machine (SVM)- III
- Support Vector Machine (SVM)- IV

Machine Learning - III

- Natural Language Processing (NLP)
- Artificial Neural Network (ANN)
- Deep Learning - I
- Deep Learning - II
- Deep Learning - III
- Project Work



PROGRAMME OUTLINES

STAGE III - Post Graduate Executive Certification in Data Science

Time Series Foundation-I

- Trend & White Noise -I
- Trend & White Noise -II
- Auto Regressive Model -I
- Auto Regressive Model -II

Time Series Foundation-II

- Moving Average Model -I
- Moving Average Model -II
- Stationary of Time series

Tableau Essentials

- Business case -I
- Business case -II
- Start, Set and Close-I

Visual Analytics

- Visual Analytics - I
- Visual Analytics - II

Research Methodology

- Introduction
- Research Types
- Process
- Data Collection
- Ethics & Scientific crediting
- Report Writing

Master's Dissertation

- Identification
- Report Writing
- Publication



SELECTION PROCESS



**Register
Yourself**



**Pay
Application Fee**



**Upload
Your CV**



**Profile
Screening
& Selection**



EMINENT FACULTY PANEL



Dr. Emandi Sankara Rao
MD & CEO; Chairman of IFCI
Group Companies and Institutions

Emandi Sankara Rao is currently serving as MD&CEO of IFCI Ltd, a Government of India Undertaking. IFCI is the oldest Financial Institution and the first Development Finance Institution of the country set up in 1948 and has been contributing towards Indian economic growth through development of infrastructure and industry. Dr. Rao is also the Chairman of IFCI group companies and institutions namely Stock Holding Corporation of India Ltd, IFCI Venture Capital Funds Ltd, IFCI Factors Ltd, Management Development Institute – Gurgaon & Murshidabad and Institute of Leadership Development. He is an alumni of IIT Bombay (PhD), IIT Kharagpur (M. Tech), Pondicherry Central University (PGDBA) and Andhra University (B.E. Electrical Engineering). Prior to IFCI Ltd, Dr. Rao has served for over 30 years with leading Financial Institutions – IIFCL and IDFC. He has extensive experience in Project & Corporate Finance, Private Equity, Investment Banking, Infrastructure Development and Long Term Resource Raising (Domestic & Foreign Capital). He was the Founder Director & CEO of IIFCL Asset Management Company Ltd and also the Founder Director & CEO of IIFCL Projects Limited and also was associated with the IDFC Group as Director & Business Head.



Dr. K. R. R. Gandhi
Adjunct Professor at MDI (M)

Dr. K. R. R. Gandhi is a renowned Mathematician and is a Resource person in Mathematics for Oxford University Press. His passion for Pure Mathematics started at an early age and his love for Number Theory has grown exponentially since then. He did immense contributions in the field of Number theory and has published several papers and monographs in quite a few international journals, and few patents on his name. Dr. Gandhi is always seen doing research in applications of Mathematics, especially in Data Science. When asked what he does in his spare time, he smiles and says “More Research”.

He is a reviewer, referee and editorial member of several international journals. He has been conferred the best teacher award by JNTUK in 2012, and best researcher by RBI in 2013 and in 2014. Dr. Gandhi has vast administrative experience and held eminent positions at Govt. of Andhra Pradesh, such as member of State Planning Board; and Vice President, Voice of Big Data. Dr. Gandhi has been the life member of Calcutta Mathematical Society (CMS), Indian Mathematical Society (IMS), Ramanujan Mathematical Society (RMS), and member in SOMASS.



COURSE DELIVERY

Duration: Eleven Months blended
Delivery mode: Nulearn Plug n Learn
Frequency: Twice in a week
Campus Module: Thrice During Course



COURSE PEDAGOGY

The program consists of 180 hours of online and offline sessions delivered by MDI faculty panel and senior professionals from the field of analytics. A combination of Cases, Exercises, Lectures, Project Work and Hands-on Practice using analytics tools will be used.



ELIGIBILITY

- Bachelor's degree in any discipline with a minimum of 50% aggregate marks is compulsory.
- Candidates with Mathematics or Statistics background will be given preference.



SELECTION PROCESS

- Profile Screening
- Interview with Panel
- Selection & Letter of Intent

Those who have scored as per following are exempted from the selection process and can go for direct admission.

GRE 300+, GMAT 650+, CAT 90+ Score & Professors from Indian Institutes/Universities



PAYMENT MODE

Online payment or DD in favor of "Human Racers Advisory Private Limited" payable at "New Delhi".



COURSE SCHEDULE

3.00 hrs on Saturday & Sunday
Total Numbers of Online Hours: 180 Hours
Total Number of Offline Hours: 36Hours.

Course Commencement Date: 21st Dec, 2019



CAPSTONE PROJECT

The Capstone Project gives you the opportunity to apply what you've learned about how to make data-driven decisions to a real business challenge. The project shall be mentored and evaluated by faculty from MDI. The project will be presented to the faculty board during 3 days of campus visit at the end of the course as a part of the requirement for the successful completion of the program.



HOW TO APPLY

To apply, students and working professionals can register at <http://nulearn.in> or call at +918882720101 (Toll Free)



LMS (Learning Management System)

Our State of the art LMS (Learning Management system) with cutting-edge features ensures a quality learning experience. The LMS combines the support of a classroom learning with the flexibility of online Education. Our Learners can access high quality course materials, course calendars and assignments anytime they wish. Some of the key features include:

- Single Sign on
- Virtual classrom
- Social Learning
- Gamification
- Easy Notification

TOP FACULTIES

CAMPUS VISITS

WEEKEND ONLINE CLASS

INDUSTRY INTERACTIONS

CASE-BASED SESSIONS

CAREER ADVISORY

PRESTIGIOUS CERTIFICATION

END TERM PROJECT

Academic
Partners



IIM
RAIPUR



Login Into your account to continue with your learning experience.

[Forgot your password?](#)

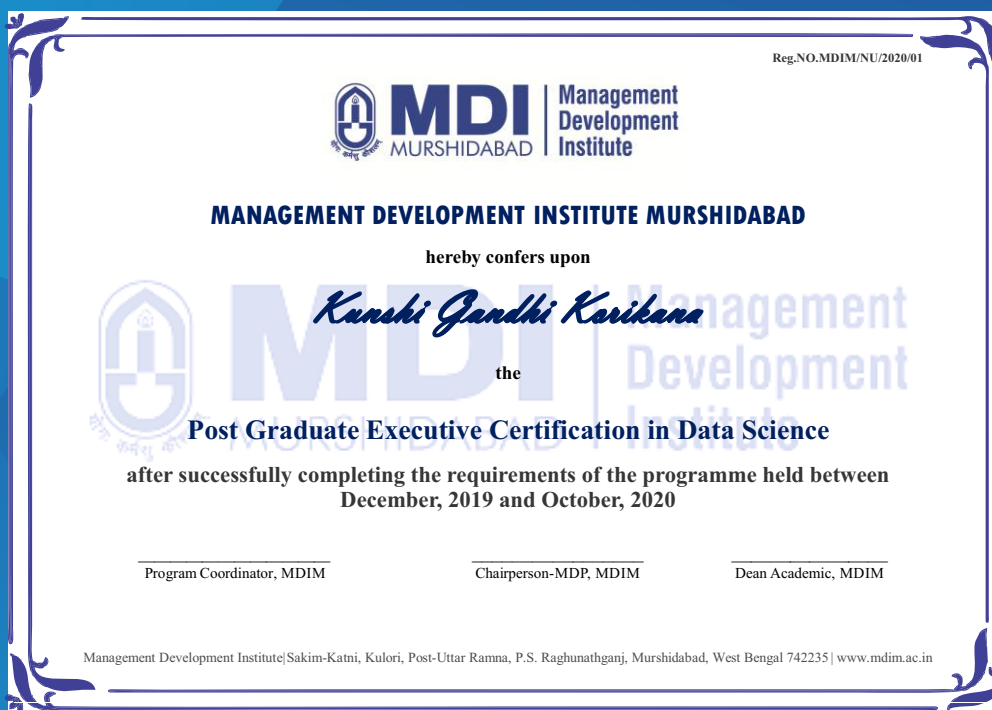
Activate Windows

Go to PC settings to activate Windows.

Powered by Nulearn Education



MDI SAMPLE CERTIFICATE



Note:-

This is sample certificate. Subject to be changed as per institute's instructions.



FEE STRUCTURE & EMI PLAN

Programme Fee

For Indian Residents INR 1,20,000 + GST*

For International Students \$3,500

* Application Fee 1000/- INR
to be paid at the time of Registration

Installment Schedule

| | | |
|-----|-------------------------|--------------------------------|
| 1st | INR 30,000 + GST*/\$700 | Payment Deadline On selection |
| 2nd | INR 30,000 + GST*/\$700 | Payment Deadline 20th Nov 2019 |
| 3rd | INR 20,000 + GST*/\$700 | Payment Deadline 20th Jan 2020 |
| 4rd | INR 20,000 + GST*/\$700 | Payment Deadline 20th Feb 2020 |
| 5rd | INR 20,000 + GST*/\$700 | Payment Deadline 20th Mar 2020 |

* Loan option available in 9, 12, 15 & 18 EMIs



SATURDAYS WITH SUMIT



Mr. Sumit Kumar, Founder & CEO of NuLearn is starting his digital sessions on alternate Saturdays for students, working professionals and entrepreneurs featuring career planning, public speaking, data analytics, Advanced HR Courses and professional development. The live sessions will stream across all our social media platforms, you can send in your queries at connect@nulearn.in and we will be happy to cover the same in our upcoming session.

#SaturdaysWithSumit
#BeInDemand

Admission & Technology Partner
Nulearn

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