RP - Sanjiv Goenka Group
Growing Legacies

IMI KOLKATA

IBM Watson

Apollonius
Cloud-Cognitive-AI-Security

IMI Kolkata & Apollonius
With
Technical Support from
IBM Watson
Offers
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Industry - Academia Infused

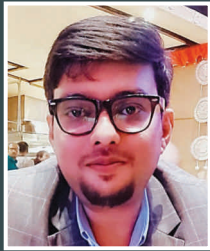# Joint Certification Course on Data Science & AI With FinTech Specialization

Key Highlight and Tools to be Taught

Tableau

TensorFlow

python

aws

IBM Watson

VENUE : IMI Kolkata   **DURATION : 6 Months**

Key Faculty Members

Souva Majumder
M.Tech IIT KHARAGPUR
(Machine learning &
Deep Learning)

Sourav Mazumder
M.Tech IIT KANPUR
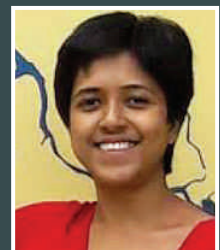Distinguished Data Scientist,
IBM USA (Data Govornance)

Pranab Kumar Ghosh
MIT USA
(Data Engineering &
ML-Ops)

Dr. Amlan Chakrabarty
Post Doc Princeton University
(Artificial Intelligence)

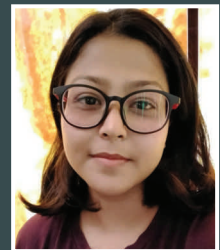**Dr. Soumalya Mukhopadhyay**
PhD CU & ISI Kolkata
(Statistics)

Dr. Manjira Sinha
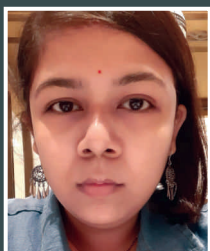PhD IIT Kharagpur
(NLP & Blockchain Tech)

Dr. Pabitra Mitra
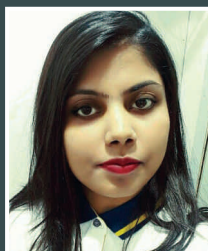PhD IIT Kharagpur
(Machine learning & AI)

Prof. Surendra Poddar
FPM XLRI & CFA
(Financial Analytics)

Meghla Mondol
MSc
(Data Science)

Anushree Bhattacharjee
M.Tech
(Statistics)

Sangita Bose
MSc CU
(Python Programming)

Overview

The theory of bounded rationality proposed by Nobel Laureate Herbert Simon is evermore significant today with increasing complexity of the business problems; limited ability of the human mind to analyze the alternative solutions and the limited time available for decision making. Business Analytics is a set of techniques and processes that can be used to analyse data to improve business performance through fact-based decision-making. Business Analytics and Business Intelligence create capabilities for companies to compete in the market effectively. Business Analytics and Big Data has become one of the main functional areas in most companies. Analytics companies develop the ability to support their decisions through analytic reasoning using variety of statistical and mathematical techniques. Thomas Davenport in his book titled, "Competing on analytics: The new science of winning", claims that a significant proportion of high-performance companies have high analytical skills among their personnel. On the other hand, a recent study has also revealed that more than 59% of the organizations do not have information required for decision making.

In a recent article based on a survey of nearly 3000 executives, MIT Sloan Management Review reported that there is striking correlation between an organization's analytics sophistication and its competitive performance. The biggest obstacle to adopting analytics is the lack of knowhow about using it to improve business performance. Business Analytics uses statistical, operations research and management tools to drive business performance. Many companies offer similar kind of products and services to customers based on similar design and technology and find it difficult to differentiate their product/service from their competitors. However, companies such as Amazon, Google, HP, Netflix, Proctor and Gamble and Capital One use analytics as competitive strategy. Business Analytics helps companies to find the most profitable customer and allows them to justify their marketing effort, especially when the competition is very high. This course is designed to provide in-depth knowledge of business analytic techniques and their applications in improving business processes and decision making.

The programme offers a carefully thought out mix of courses on tools and techniques for data visualization, modelling and analysis of varieties of data of different sizes; machine learning algorithms, cloud computing, and finally, the domain specific applications of data analytics in Finance and, skills required to package analysis output into business implications that can support decision making. No formal college level technical or statistical expertise is required except a strong desire to learn how to use data for making an impact on your organization. The objective is to up skill and prepare them for future in taking up leadership positions and shouldering bigger responsibilities in the organization. **The programme delivery is through a thoughtful option of online, and on-campus sessions**.

There is no better place to learn state-of-the-art applications of analytics in all functional domains of business than IMI Kolkata. The unique strength of the institute lies in its having an excellent resource of outstanding faculty members who are heavily engaged in cutting

About RP-Sanjiv Goenka Group

With legacies growing over the last 200 years, RP-Sanjiv Goenka Group is a business conglomerate spanning over sectors such as Power, Carbon Black, IT-enabled services, Consumer & Retail, Media & Entertainment, Sports, Education & Infrastructure, and Plantations. The Group, with US$ 4 billion revenue and asset base US$ 6 billion, 5,10,000+ shareholders, global presence in 35+ nations (120+ offices worldwide), employs 44,500+ employees and is driven by a dynamic team of professional coming from diverse backgrounds.

Introduction About IMI Kolkata

Established in 1981 with a campus in New Delhi, the International Management Institute (IMI) was India's first corporate sponsored business school. During its inception, IMI was backed by prestigious corporate houses like RPG Enterprises, Nestle, ITC, SAIL, Tata Chemicals, BOC and Williamson Magor. International Management Institute Kolkata is one of the top 50 business schools in India offering AICTE approved 2 year full time Post Graduate Diploma in Management Programme and 4 year Fellow Programme in Management (doctoral). At IMI Kolkata, faculty members are research active and the institute is known for its excellent academic and research environment. In a very short span of time, IMI Kolkata is coming up as a promising business school in management education in India.

Ethos

The IMI Kolkata campus is centrally located in the city and equipped with state-of-the-art infrastructural, academic and residential facilities. The institute offers not only a scholarly and professional ambience, but also a fulfilling campus life. The academic block is centrally air-conditioned with spacious lecture theatres, equipped with the latest audio-visual teaching aids and wireless laptops for students to access the IMI-Kolkata intranet.

Introduction About Apollonius

Apollonius Computational Business Solutions OPC Pvt. Ltd is an ISO 9001:2015 Certified Company is a New Age Training & Consulting Company Leveraging Upon its fundamental expertise on Data Science Artificial Intelligence & Cloud Computing Competencies. Founded By Souva Majumder, An IIT Kharagpur Alumnus who has more than 8 Years of Experience In Teaching, Mentoring & Consultancy of Data Science & Artificial intelligence. Apollonius is mentored by Mr. Pranab Kumar Ghosh who is also the company's Emminent Technical Advisor.

He is an alumnus of IIT Kharagpur , MS from MIT USA & MS from University of California Santa Barbara. He has worked for 29 companies in North America over a span of 35 years and a serial entrepreneur. A seasoned data scientist and a trainer & author.

Apollonius also innovated the First Voicebot In Bengali for COVID-19 & Dengue Fever Awareness. Apollonius has already Become the partners of Global Fortune 500 Companies in the Domain of Artificial Intelligence, Cloud Computing & Hyper Convergence Infrastructure.

About the Course

According to a World Economic Forum's report, AI-enabled automation will generate 133 million new jobs globally by 2022. And in India itself, the demand for AI talent pool is expected to skyrocket with the government's steps towards digitization, and multiple organizations accelerating their digital transformation initiatives. Are you ready to ride the wave?

Data Science and Artificial Intelligence Program prepare students with the skills to perform intelligent data analysis, which is a key component in numerous real-world applications. During the past ten years, data science has emerged as one of the most high-growth, dynamic, and lucrative careers in technology. This course aims at providing not only the core technologies such as artificial intelligence, data mining and data modelling but also gives intensive inputs in areas of machine learning. By this course, the students will gain cross-disciplinary skills across fields such as statistics, computer science, machine learning, and logic.

Data scientistshave career opportunities in healthcare, business, eCommerce, social networking companies& Financial companies.

A series of annual surveys by EY reported that the adoption of FinTech among consumes is doubling every two years. It grew from 16% in 2015, to 31% in 2017, to 60% in 2019. India and China lead in this area, with over 87% consumers favouring the use of FinTech-based products and services. A conducive business environment, entrepreneurial and innovative mindset, regulatory support, and increase in funding and startups are enabling the adoption in this space. The major focus of this programme is to equip students with statistical, mathematical reasoning, machine learning, knowledge discovery, and visualization skills. This Programme is designed to helpprofessionals who are aspiring for rapid career progression in the high-growth areas of FinTech and wish to stand out in highly competitive workplaces by acquiring prestigious skill based qualification from a premier institution.

The programme is designed for finance professionals, and technology professionals who wish to advance their career in FinTech, by building specialised skills in the areas such as Blockchain, InsurTech, Machine Learning & Deep Learning for Finance, Quantitative Methods, and Financial Analytics.

Programme Highlights

Learn without a career break with live online OR in-classroom lectures conducted on weekends or after office hours by eminent faculty members and experienced industry professionals. Practitioner-oriented insights from industry experts will help you develop solutions to real world problems using cutting edge analytical techniques.

Comprehensive and rigorous curriculum covering key concepts and technologies of Artificial Intelligence, Machine Learning & Block-chain Technology

A 4-week Capstone project by Apollonius the Industry partner for the program where you will work towards solving a Data Science related business problem under the mentorship of Apollonius faculty members and senior industry practitioners.

Fee payment by easy-EMIs with 0% interest.

Course Objectives

- To introduce the fundamentals of science and engineering concepts essential for a data architect / data scientist.

- To inculcate the knowledge of mathematical foundations and algorithmic principles for effective problem solving.

- To provide knowledge in data science for modern computational data analysis and modelling methodologies.

- To provide the knowledge in artificial intelligence techniques and apply them to develop relevant models and real time products.

- To impart knowledge to analyze, design, test and implement the model required for various applications.

Learning Outcomes

Analyse and build models applying the knowledge of mathematics, statistics, electronic, electrical and computer science discipline and solve the problem. Identify the sources of information for data collection, design and conduct the experiments and interpret the result.

Think out-of-the box and solve the real time problems using their creativity in designing human friendly software systems. Comprehend computer engineering concepts of the new research developments and apply them to develop relevant software and hardware products.

Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations. Apply the computing knowledge to solve the socially relevant problems.

Understand the impact of engineering solutions in global, economic, environmental, societal context and apply it in exploring the new developments, research trends and involve them in research. Develop professional integrity by understanding and appreciating professional, legal, ethical, cyber security and related issues and act with responsibility.

Communicate, collaborate and work as a team by involving in the group projects of multi-disciplinary nature. To prepare documents as per the standards and present effectively to improve software documentation skills.

Apply the hardware and software project management techniques to estimate the time and human resources required to complete computer-engineering projects. Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Course Contents :

Module 1	Mathematics & Statistics for Data Science & Artificial Intelligence
Module 2	RDBMS, SQL & Data Visualization with Tableau
Module 3	Machine Learning
Module 4	Artificial Intelligence
Module 5	Deep Learning
Module 6	Python For Machine Learning
Module 7	Cloud Computing using AWS
Module 8	Financial Analytics
Module 9	Block Chain Technology

Documents required for admission

The candidates are required to submit a copy of following documents and bring originals at the time of admission for verification.

• 10th, 12th, and completed Graduation Mark sheet
• Date of Birth Proof
• Resume Copy
• Proof of Work Experience

Eligibility Criteria:

Minimum eligibility to apply:

Employed professionals or Freshers holding BE/ B.Tech./ MCA/ M.Tech/ MBA/ CA/ CS/ CFA or equivalent, and working in relevant fields are eligible to apply.

Pursuing students of BE/ B.Tech./ M.Tech./ MCA/ CA/ MBA are also eligible to apply

Candidates holding or pursuing M.Sc. in Mathematics, Statistics, Economics, Commerce or Computer Science, and working in relevant roles are also eligible to apply to this programme.

A working knowledge of any programming languages is desirable.

Selection Procedure

The admission to Joint Certification Programme on Data Science & AI with Specialization in Fintech is based on the evaluation of academic qualification and work profile of the candidate followed by an interview. Candidates are required to satisfy themselves about the eligibility and suitability for the program keeping in mind their career goals.

Fee Structure

The following fees schedule is applicable for the Post Graduate Programme in AI & Machine Learning.
Programme Fees : INR 1,25,000 (plus 18% GST) = 1,47,500

Fee Payment Schedule

- Block Amount: INR 25,000 (payable within 7 days of receipt of provisional Admission Offer Letter)
- Remainder Programme Fee: INR 1,22,500 (payable within 15 days of receipt of Final Admission

Installment Option:

1ST INSTALLMENT	2ND INSTALLEMRNT	3RD INSTALLMENT
INR 50,000.00 (payable within 7 days of receipt of provisional Admission Offer Letter)	INR 50,000.00 (payable within 2 months of the commencement of the course)	INR 47,500.00 (payable within 4months of the commencement of the course)

All the payment should be paid to IMI, Kolkata in the form of DD/NEFT

Payment terms:

Payment should be made before commencement of the programme by directly crediting the amount through NEFT / RTGS same should be sent to the account of **IMI-KOLKATA**

Payment can also be made by Draft drawn in favor of International Management Institute Kolkata, payable at Kolkata. To be sent to the undernoted address or could be given at the time of registration.

Bank Account Details for e- Transfer: through NEFT / RTGS

PAN	:	AABTA8025E
SERVICE REGN. NO	:	AABTA8025ESD002
Bank Name	:	AXIS BANK
Account Holder name	:	International Management Institute Kolkata IFS CODE: UTIB0000391
MICR CODE	:	700211026
ACCOUNT NO	:	911010066934574
Branch	:	PANCHANANTALA BRANCH, HOWRAH MICR: 700211026
Address	:	PANCHANANTALA BRANCH, DESHPRAN SASHMAL ROAD, HOWRAH 2, PIN: 711101

If TDS is deducted kindly send the TDS certificate to the address mentioned in the letter head

Note: After e-remittance please invariably intimate us by mail remittance details such as

(I)   Remitting Bank and Remitting Branch

(II)   Amount remitted

(III)   Transaction id &

(IV)   Date of remittance to track the receipt at our end.

(V)   Invoice will be mailed on the same day on receipt of the payment.

Program Directors:

Dr. Soni Agrawal
(Ph.D IIT Kharagpur)
Dean MDP & EDP, IMI Kolkata

Mr. Souva Majumder
(M.Tech IIT Kharagpur)
Founder & Director of Apollonius

Contact Details :

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