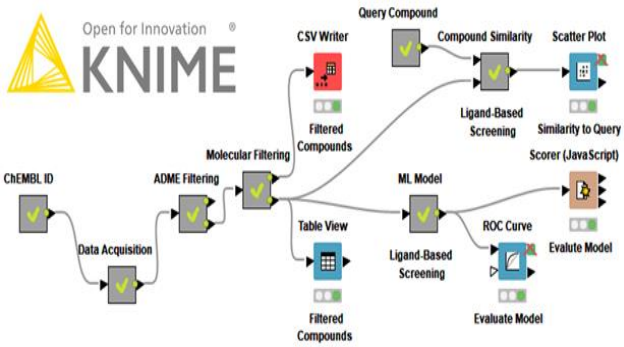
AI for Managers
-- Democratizing AI --

FORE School of Management
New Delhi

AI for Everyone

Democratization of artificial intelligence refers to making AI workbench accessible to all. This accessibility enables everyone in the Industry or in any organization to experiment with AI and apply it on one's own data—large or small– and draw meaningful conclusions. Such an approach spurs innovation and it provides competitive edge especially in the online world. Today, tools and technologies are available that without much effort, will apply a collection of pre-decided machine learning (ML) techniques on a dataset and finally come out with the best possible results—such AUTO-ML algorithms while, on the one hand, hide the complexity of sophisticated ML techniques from the user, at the same time present him with enough visualizations to interpret the results, draw insights from the data and make predictions or perform segmentations. On the part of student, no special qualifications are required except domain knowledge (so that he understands his data) and that he be a graduate in some discipline.

This program is unique in its breadth of coverage. We cover both Machine Learning and Deep Learning, almost in their entirety. At the same time, we make it easy to apply them within in their organizations.



1. Completely interactive and hands on program.
2. Students work with real data from Industry or can bring their own data from the organization.
3. All tools are open-source, top-of-industry, freely available and easy to install. Installation can be on a laptop as also on a server for very large datasets (of many gigabytes size).

About the Course

It is a cross-discipline course. Development of this program comes from our realization that that many of our students are deeply busy in their core professional work and have little time to learn the intricacies of a programming language (such as python or R). And at the same time, they would like to gain from and apply power of analytics in their work. The program delivery highlights a conceptual approach rather than a mathematical approach to understanding AI and building predictive models.

We have three modules: These are on Machine Learning and AI Techniques (ML & AI); Deep Learning and Natural Language Processing, and Capstone Project. These modules are totally hands-on and practice based designed with the primary objective of disseminating techniques of Business Analytics using Machine Learning & AI. Our course covers simple to advance techniques and there is an extra emphasis on data visualization.

Visual Tools used

We use *KNIME*, *H2o.ai* and *Deep Learning Studio*. All three have highly intuitive user interfaces to perform analytics. H2O.ai has been named a Visionary in the 2023 Gartner Magic Quadrant. Both, KNIME and Deep Learning Studio, use a drag and drop approach to building of simple to complex machine learning workflows. KNIME empowers a data scientist or a manager to be self-sufficient. It is a versatile platform that empowers users with an open-source data analysis, integration, and reporting solution. Through KNIME, users can construct data workflows, execute specific analysis steps, evaluate results and models, and have interactive visualization through a graphical user interface. Coding is unnecessary as the workflows are built by connecting pre-implemented code units (referred to as nodes) with thoroughly tested and standardized functionalities.

H2O.ai is a product of a highly active and professional community. It has an excellent user interface for building machine learning and deep learning models; h2o.ai models can also be constructed using R or python wherein, much more flexibility becomes available. Some of our classroom notebooks can be seen on GitHub.

Program duration and venue

The complete program duration is 40-hours. Classes can be held online or in classrooms. In online mode, classes can be held either on appointed weekdays or on Saturdays and Sundays--each class is of 2-hour duration. In class room mode full day classes are held and these can be held at FORE School of Management, New Delhi. We can also have a mix of offline and online classes.

Program requirements

Students must have access to high-speed Internet (generally available now a days) and a lap-top with minimum of 16gb RAM. All software that we will work with are open-source and freely available. Students will also be provided with Virtual machines that have pre-configured software installed for experimentation.

Target Participants:

The program has applications in a large number of domains. Category of possible participants include Managers, Executives, engineers and decision makers.

Exercises and Projects

There is a heavy emphasis on exercises and projects. Students must experiment and implement systems themselves. Throughout the course students are to undertake several projects. We encourage students to use their organizational data to solve related problems.

Contacts

For any details please feel free to contact either the Program faculty, Prof Ashok K Harnal, at 8750893093 (WhatsApp) or Prof Asif Zameer, Chair, Executive Education at 9871053303 (WhatsApp).

Program Faculty

Prof. Ashok Kumar Harnal

Ashok Kumar Harnal has worked extensively at multiple facets of Big Data Systems--Machine Learning, Deep Learning & NLP, Big-Data storage systems (Hadoop and NoSQL databases), Graph Databases, Streaming Analytics using Apache Spark, Apache Kafka, Confluent and Reinforcement Learning. He has been teaching Big Data technology since around last twelve years. Since last nine years Prof Harnal has been collaborating closely with University of California, Riverside, in a program on taking sessions on Big Data for Executives from around the World. We have trained officers from several organizations including RITES, NABARD, TechMahindra, Punjab National Bank, Central Bank of India and Union Bank of India Presently we are training officers in one another Bank. What is a matter of pride for us is that many of our students are at very high positions in Industry. We have successfully conducted three programs on Healthcare Analytics; two programs were of three months duration and one of nine months duration. During his stay in Min of Defence, he has executed three country-wide projects on Information Systems: (a) *Raksha-Bhoomi* to computerize land records (as old as 150 years); (b) Knowledge Management of land-title related files/maps in all Defence Estates offices; and (c) Setting up of a Disaster Management organization: Archival Unit and Resource Center (AU&RC), at Delhi and Pune for safe storage of land-title related records in paper and digital forms. He has published two books (both by Tata McGraw-Hill); One on *How to program games on Computers* and the other on *Linux Administration and Applications*. My GitHub site is here.

Prof. Amarnath Mitra

Dr. Amarnath Mitra is working as an Associate Professor in the area of Information Technology and Big Data Analytics at FORE School of Management, New Delhi. Prior to joining FORE, Dr. Mitra worked as Senior Quant Analyst at BioUrja Power LLC (Texas, USA). Dr. Mitra has over five years of industry experience as an analyst and researcher with substantial exposure of working with big & high frequency data and analytics. In academics, Dr. Mitra worked as full-time faculty for over six years in management institutes such as BML Munjal University Gurugram, IMI New Delhi and IBS Hyderabad. As guest/visiting faculty he has taught in several reputed institutions like SIBM Pune, NMIMS Hyderabad, IIIT Bhubaneswar among others. Dr. Mitra has taught subjects like Data Science, Predictive Analytics, Business Analytics, Quantitative Methods, Business Research Methods, Operations Research, Econometrics, among others.

About FORE School of Management (FSM)

Foundation for Organizational Research and Education (FORE) is committed to the advancement of Management Education, Research, Training and Consultancy. Incorporated in 1981, as a non-profit institution, FORE has been working with industry and academia for developing new domains of managerial thought and education and contributing to building leaders in today's global business environment.

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Located in the heart of South Delhi, FSM provides contextual learning and helps in the development of students as thinking professionals, who have the ability to meet the future challenges of tomorrow's corporate leaders. The programmes develop multiple skills including managerial decision-making, problem-solving, analytical reasoning, communications, creativity, and innovation. FSM has been designing, developing, and conducting innovative Executive Education (EE)/ Management Development Programmes (MDPs) for working executives in India for over three decades.

FSM takes pride in its professional and high-quality faculty, modern infrastructure, technology, and resources- be it in the fields of General Management, Data Science, Human Resource, Finance, Operations, Marketing, Information Technology, Economics, and International Business.

Customized Training Program

These Programs are designed according to the specific needs of the corporate. The pedagogy used in keeping with the background, experience and aspirations of participants as specified.

Long Duration Training Program(LDPs)

Along with the above, FORE does long-duration programmes like PGPM (Executive Management programme), Big Data Analytics, Marketing Analytics, Healthcare Analytics. These are online or blended programmes of 3 months to 11 months.

Open Training Program (OTPs)

FSM Open Training Programs (MDPs) aim to equip business managers with knowledge, skills, and attitudes for effectively responding to global developments and competitive requirements. The emphasis is on developing the ability to apply learnings efficiently and improve decision-making.