INNOVATICS
INNOVATION THROUGH ANALYTICS

DATA SCIENCE & AI

FOR EXECUTIVES

3 Months | 2-3 Hrs. a Week

8 Modules

Start Date: Tuesday 7, May, 2024
Every Tuesday at 6 PM

www.innovatics.ai   s.smaoui@innovatics.ai

OVERVIEW

Bloomberg pegged the global Artificial Intelligence (AI) market value at US $136.55 billion and anticipated Generative AI becoming a US$1.3 trillion market by 2032. A recent survey by New Vantage Partners found that 91.7 percent of top organizations are investing in AI activities, and according to a study by IBM, 54 percent of organizations using AI reported improvements in cost savings and efficiencies. With advancements in Machine Learning, Automation, and Natural Language Processing, AI is revolutionizing traditional business models in unprecedented ways and is poised to drive a new wave of innovation across industries. AI offers a vast array of capabilities with limitless potential, including automating repetitive tasks,

providing predictive insights, enabling personalized customer experiences, optimizing supply chain management, and improving risk assessment. The need for efficiency has led to rapid technological advancements in the field of AI. It is no longer limited to technology organizations. Businesses from all industries are realizing the promise that AI brings across the enterprise, from marketing to operations.

By embracing the AI revolution, leaders can position themselves at the forefront of innovation and growth. In this tech-driven economy, embracing game-changing technologies such as AI can enhance various business functions and propel your organization forward.

KEY TAKEAWAYS

Learn AI's current capabilities and applications, and its future potential

Leverage generative AI models and simulations for predictions

Organize and manage successful AI application projects

Grasp the technical aspects of AI to effectively communicate with technical teams and colleagues

Learn how to avoid pitfalls associated with these new technologies

Build your leadership credibility with a certificate of completion from InnovatiCS Executive Education

WHO IS THIS PROGRAM FOR?

Build your leadership credibility with a certificate of completion from InnovatiCS

❖ Senior managers and executives involved with managing teams and AI-driven projects.

❖ Functional business heads interested in exploring AI opportunities across business functions.

❖ Mid-career professionals looking to bolster their career opportunities through new technologies.

❖ Data scientists and analysts involved in research for business intelligence or data analytics where AI may be useful.

❖ Professionals eager to upskill and advance in their career with the recent advancement in applications of AI in business.
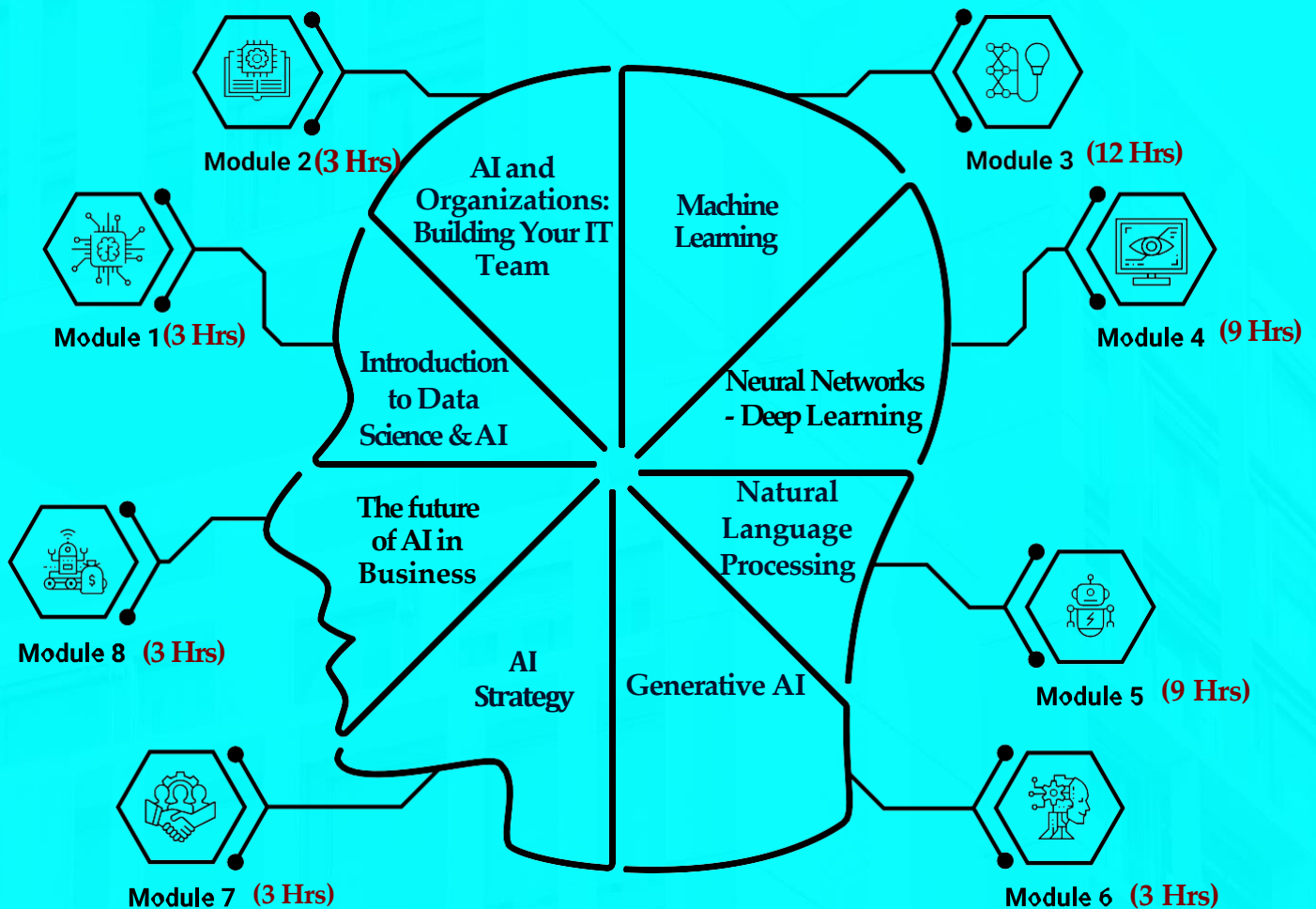
YOUR LEARNING JOURNEY

You will experience a hands-on approach that bridges the engineering and technical aspects of AI and its business applications. Leading faculty from both disciplines teach in the program, bringing their valuable industry expertise.

The program includes live and recorded sessions, case studies, assignments, applied learning opportunities, and interactive discussion groups. You will also benefit from four live teaching sessions, real-world examples, and a capstone project.

The live faculty sessions will delve into trending AI topics, such as the business and future of AI, prediction simulations, and building AI teams.

This program requires no engineering or technical experience. As the program progresses, you will learn the basics of AI technologies and how they can be applied to your organization. Through an engaging learning journey, you will gain a foundational understanding of AI and how it can be positioned to improve efficiency and effectiveness across your organization.

Module 2 (3 Hrs)

Module 3 (12 Hrs)

AI and Organizations: Building Your IT Team

Machine Learning

Module 1 (3 Hrs)

Module 4 (9 Hrs)

Introduction to Data Science & AI

Neural Networks - Deep Learning

Module 8 (3 Hrs)

The future of AI in Business

Natural Language Processing

AI Strategy

Generative AI

Module 5 (9 Hrs)

Module 7 (3 Hrs)

Module 6 (3 Hrs)

PROGRAM MODULES

Module 1

Introduction–AI and Business

- What Is AI?
- High-Level Overview of Technologiess,– Capabilities and Limitations.
- AI Methods and Business Applications.
- Machine or Humans?
- Interaction between AI and People

Module 2

Data Management for AI

- Training, Validation, Test.
- The Importance of Data (Quantity and Quality)
- Obtaining and Managing Data for Machine Learning
- Descriptive Analytics, Predictive Analytics.

Module 3

Machine Learing

- Supervised Learning Classification.
- Supervised Learning Regression.
- Ensemble Method
- Models evaluations & Bias
- Unsupervised Learning.

Module 4

Neural Networks & Deep Learning

- From Traditional Machine Learning to Neural Networks.
- Deep Learning (ANN).
- Convolutional Neural Networks (CNN).
- Recurring Neural Networks (RNN).

Module 5

Natural Language Processing

- Natural Language Processing.
- Natural Language Applications.
- Natural Language Pipeline
- Generative Artificial Intelligence
- Large Language Models (LLMS).
- Recent Developments: GANs, RNNs

Module 6

Big Data & AI Strategy

- Data Literacy
- Introduction to Big Data
- Implications of AI on Business Strategy: Developing & Executing an AI Strategy.
- AI and Value Creation: AI as a Source of Competitive Advantage.

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Module 7

AI and Organizations: Building Your AI Team

- **AI Experts and Supporting Functions in the Organization.**
- **Embedding AI in the Organization.**
- **The Challenges of Organizational Transformation.**

Module 8

The Future of AI in Business

- **How Will AI Continue to Transform Business?**
- **What New Problems Will We Be Able to Solve?**
- **Ethical and Moral Issues.**
- **Preparing for the Future of AI.**
- **Intelligence & Augmentation: Humans and AI.**

PROGRAM EXPERIENCE

**Live teaching sessions
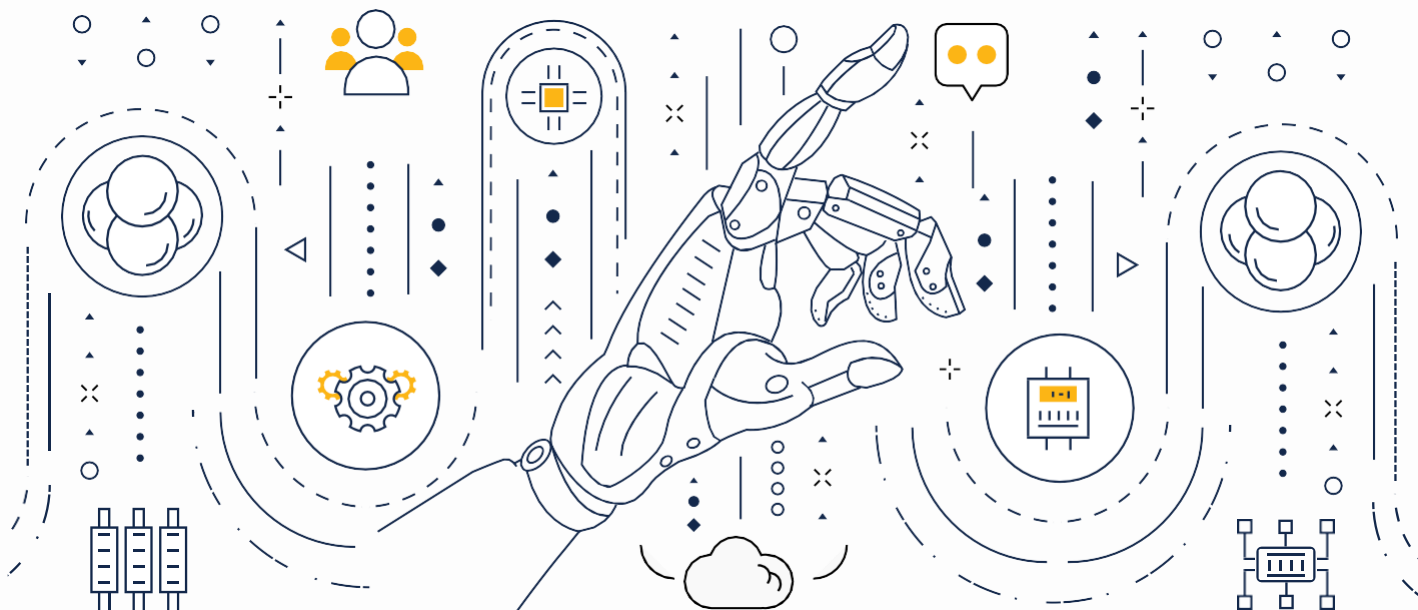to deliver learning in real time**

**Cross-disciplinary approach
through diverse faculty**

Real-world applications
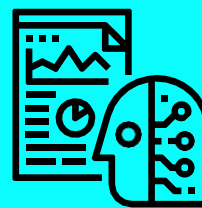
**Capstone project:
AI initiative for your organization**

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ORGANIZATIONAL EXAMPLES

In order to deepen your understanding of key concepts and encourage critical thinking, we will examine several example organizations.

Facebook	**Google**	**HubSpot**	**Infinite Orbits**	**Starbucks**
Tesla	**Tailor Brands**	**United Airlines**	**Volvo**	**Zebra Medical Vision**
Uber	**Polgraf.ai**	**Humata.ai**	**HarvestCROO**	**Grail**
Atomwise	**Jasper**	**Everlaw**	**Kira**	**Phantom Auto**
Regard	**Companion Lab**			

Note: All product and organization names are trademarks or registered trademarks of their respective holders. The study of these products and/or organizations does not imply any affiliation with or endorsement by them.

CASE STUDY

Auto-insurance Claims

In Auto Insurance Claims, the normal assessment time ranges from 3 to 15 days with more than 90% of manual processes. The fraud & error chances are also high due to agent compromise or based on grey areas where claims assessment is done with gut-feeling without any learning from the past or without even having any insights. This causes 1 out of 10 frauds in US and loses about US $6.25B each year. This is expected to increase due to increase as more Indians are buying new vehicles over period of time

Other case studies covered in this program are:
Churn Prediction, Recommendation systems, Salaries Prediction

PROGRAM FACULTY

MO MEDWANI (Ph.D.)
4 - Master Degrees | 23 Years of Experience

Founder of InnovatiCS is a Ph.D. in Artificial Intelligence and an expert data scientist with a passion for transforming data into useful products. He has over 23 years of experience in Service Delivery Management; Four master's degrees in Data Science, IT, Machine Learning, and Business Administration; and over 11 years of experience working with data science. Mo's specialties include Data Science, Machine Learning, Natural Language Processing, Deep Learning, Data Analytics, Application Support, and IT Service Delivery Management.

ED BUJAK
2 Master's | 20 Years of Experience

Data science and Python expert with over 26 years of experience in IT and 20 years of education experience in computer science, mathematics, and engineering. He has two master's degrees in electrical engineering and education, respectively. Ed is a public speak in everything related to programming, data science, and machine learning

Mohammed Mojeeb
MBA - Microsoft Certified | 24 Years of Experience

Bachelor's degree in Computer science and a Master of Business Administration (MBA) Microsoft Certified. Technology Specialist in SQL Server Implementation and Maintenance Microsoft Certified. Azure cloud Fundamentals Certified. Computer Programming and Database Development Over 24 years of experience in Software Development, Database Development, and Cyber Security, and a strong background in all varieties of Application Development and Application Security 10 years of training experience .

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Christin Shafer

Top Data Driven Systems expert in the world. She uses her wealth of experience to help organization successfully implement Digital transformation and leverage the potential of Data and AI. Her C-Suite experience along with her expertise in Technologies make her contribution in teaching our students very impactful.

Board Roles
- Advisory Board Member, VIDA.place, 01.2023
- Global Advisory Board Member, Binance, 07.2022
- Advisory Board Member, Big Data Group, German Economic Institute,11.2017
- Vice Chairwoman, Supervisory Board, GRIPS Energy AG, 12.2015 –12.2019

Commissions
- Reviewer for the Bavarian Institute for Digital Transformation, 2021
- Data Ethics Commission of the Federal Republic of Germany, 2018 -2019

Salwa Smaoui

- 16 years as C-level at Microsoft

- Chief commercial and marketing officer at Core 42

- Digital transformation leader with over 28 years of experience in the world of technology, sales, marketing & business development, Startups |AI| Smartcity| ESG| women in tech advocate.

- AI national strategy expert

- Founder of Baobab Campus – an Education platform for professionals in MEA

THE LEARNING EXPERIENCE

Our programs are designed to meet the needs of individual learning styles, while also leveraging the power of peer learning. This is achieved through a user-friendly learning platform that enables participants to easily navigate the program content to achieve learning objectives.

KEEPING IT REAL

Our pedagogical approach is designed to bring concepts to life, including:

- **Byte-sized learning techniques**
- **Peer learning discussions**
- **Real-world application**
- **Live, interactive teaching**

KEEPING IT CONVENIENT

Access to program content is flexible and available through multiple devices, allowing working professionals to easily manage schedules and learn remotely—anytime, anywhere. Participants enrolled in the program obtain access to learning materials in a modular approach, with new content released weekly. Program modules include a variety of teaching instruments, such as:

LIVE lectures   **Discussions**   **Class Materials: Articles, Cases**   **Quizzes**   **Surveys**   **Assignments**

To further personalize the program modules, live teaching sessions are scheduled during the program, often with Q&As. For participants who are unable to attend these live sessions, a recording is made available so nothing is missed. Our industry-leading learning platform allows participants to create a profile, connect and collaborate with peers, and interact with academic/industry experts such as program leaders and teaching assistants. Assignments are often linked to participants' real-world situations, making concepts inherently practical.

Certificate of Completion

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PATH TO ALUMNI BENEFITS

Enrolling in the **Artificial Intelligence: Business Strategies and Applications** program can be your first step toward pursuing the InnovatiCS **Certificate of Analytics Professional (CAP)**. The Certificate of Analytics Professional gives individuals the opportunity to acquire and hone new skills and do it on a timeline that works with your busy schedule. Participants will earn a mark of distinction with certification from a InnovatiCS and enjoy the flexibility of repeating the program in up to 5 times. Learn more about the program and associated alumni benefits.

KEEPING IT INTERESTING

Our globally connected classrooms enable participants to seamlessly interact with their peers to complete group assignments and stay on track toward program completion with culturally-enriching encounters along the way.

PROGRAM REQUIREMENTS

To access our programs, participants will need the following:

- Valid email address.
- Computing device connected to the Internet: PC/laptop, tablet, or smart phone.
- The latest version of their preferred browser to access our learning platform assignments.
- Microsoft Office and PDF viewer to access content such as documents, spreadsheets, presentations, PDF files, and transcripts.

OTHER REQUIREMENTS

Programs may necessitate the usage of various software, tools, and applications. Participants will be informed about these additional requirements at the registration stage or when the program begins. Our program advisors are also available to respond to any queries about these requirements.