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CERTIFICATION PROGRAM IN DATA ANALYTICS WITH GEN & AGENTIC AI

FROM VISHLESAN I-HUB, IIT PATNA



| About IIT Patna, Vishlesan i-Hub

National Innovation Hub: Vishlesan i-Hub at IIT Patna is part of a national mission, advancing AI in speech, video, and text analytics for sectors like health, education, and security.

Premier Technical Institute: IIT Patna is one of India's top engineering institutes, known for its cutting-edge research and strong academic foundation.

Strong Industry & Research Ecosystem: With active collaborations, incubators, and innovation hubs, IIT Patna bridges academia and industry to drive real-world impact.

Why Choose This Course?

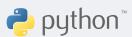
- Real-World AI Projects: Gain hands-on experience by working on real-world data analytics projects powered by Generative AI.
- Campus Immersion: 3 day campus immersion for in-depth interaction with experts and networking with fellow students.
- Joining Kit: Receive a joining kit with an ID card, admission letter, T-shirt, and other essential resources to help you start your journey.
- Al Portfolio Development: Create a standout portfolio by working on Al-driven business solutions, showcasing your ability to tackle real-world problems.



What Will You Learn?

This 6 month course teaches you how to use Generative AI, Agentic AI & Data Analytics to make strategic, data driven business decisions through practical projects and real-world case studies. You'll gain hands-on experience in data analysis, predictive modeling and decision-making frameworks.

Toolkit















& more

| Course Details

Course Duration 6 Months

Time Commitment 8-10 hours per week

Certification

From Vishlesan i-Hub IIT Patna

Course Curriculum

Module 1a: Foundations of Business Analytics & Data Science

Business problem framing, KPIs, Excel modelling, basic statistics, distributions, hypothesis testing, A/B testing.

Module 1b: Data Visualization & Case Studies

Visualization Best Practices & Perception, Choosing the Right Chart, Introduction to Tableau and Power BI, Building Interactive Dashboards, Data Storytelling Frameworks, Advanced Visualization Techniques.

Module 2: Data Warehouse for Al

Data is the foundation for Artificial Intelligence models. Generative AI models rely on large amounts of high-quality data to learn patterns, relationships, and structures. Understanding various data stores helps students appreciate how data is stored, managed, and retrieved. This data is usually stored in a variety of data stores viz. relational databases, NoSQL databases, data lakes. Knowledge of these data stores will enable students process various data formats

Module 3: Python Crash Course for GenAl

Learn basic Python required for GenAl-Data Types, Flow Structures, Data Structures, Functions, Libraries, Python in Data Science.

Module 4: Machine Learning Basics

Supervised and unsupervised learning, time series analysis, churn prediction, forecasting. Examples include sentiment analysis for customer reviews.

Module 5: Neural Networks & Deep Learning

Understand the transition from traditional machine learning to neural networks and deep learning and their common applications.

Module 6: Introduction to LLM & Prompt Engineering

You can use LLM for content creation, computer programming, problem solving, dataset generation, and learning. In this model, you will learn how to effectively leverage LLM to improve your productivity. You will be learning basic prompting strategies such as setting the context, role prompting, and tuning model settings. You will also learn advanced prompting methods such as chain-of-thought (COT) prompting.

Module 7: Building your own Al agents

Supervised and unsupervised learning, time series analysis, churn prediction, forecasting.

Instructor & Industry Experts



Dr. Surya PrakashProfessor, Department of Computer Science & Engineering, IIT Indore

Prof. Surya Prakash is a distinguished academic with over 12 years of experience in teaching and research, dedicated to nurturing some of the brightest young minds in computer science. He has been an integral part of IIT Indore's growth and served as Head of the Department of Computer Science & Engineering from 2017 to 2020, where he played a key role in shaping the department's academic and research direction.

His research expertise lies in biometrics, with a strong focus on ear biometrics, facial recognition, and biometric database indexing. Prof. Prakash has contributed significantly to the advancement of secure and efficient human identification systems, with a particular emphasis on leveraging deep learning techniques for biometric recognition. His work bridges fundamental research and real-world applications, creating impact in areas such as security, authentication, and Al-driven recognition systems.



Sumit Verma
Co-Founder & CTO at Responsible AI Labs (RAIL)
AI Architect | IIT Kharagpur

Mr. Sumit Verma is at the forefront of shaping the future of ethical AI. With an extensive experience of over five years as a Machine Learning Engineer at Rakuten, Mercari, and OpenSense Labs, he has scaled billion-parameter models, optimized distributed training (ZeRO, FSDP), and enhanced efficiency by 30% through advanced MLOps practices. At RAIL, he spearheads the development of the RAIL Score APIs and frameworks, driving innovation in multi-agent systems and personalization with accountability at the core.

Admission Process



Clear Qualifier Test

Clear the qualifier test to be eligible for the program.



Complete Counselling

Only shortlisted candidates go through the counselling process.



Start Learning

Learn from India's top educators and stand out from the crowd.

Fees Structure

Qualifier Test Fee	₹99
(Non-Refundable)	(33

Option 1

Option 2

 Upfront
 EMI (Through our NBFC partners)

 Secure Seat Fee (Non-Refundable)
 ₹4,000

 Programme Fee (Non-Refundable)
 ₹51,085

 Total
 ₹55,085*

^{*}GST at 18% extra, as applicable

