



Electronics & ICT Academy
Indian Institute of Technology Guwahati
An Initiative of Ministry of Electronics & Information Technology(Meity)

Advanced Certification

Applied Generative AI Course

6 months

Online Instructor Led

Industry-Aligned



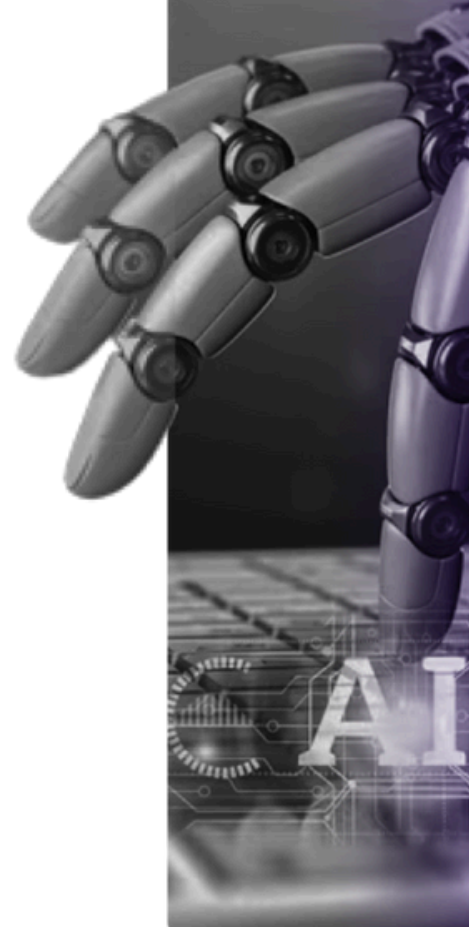
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A PROGRAM DESIGNED TO PREPARE YOU FOR THE FUTURE OF TECH

E&ICT, IIT Guwahati's comprehensive Advanced Generative AI with RAGs and Llangchain course is tailored for individuals seeking to stay competitive in the evolving job market and unlock new opportunities for professional growth.

This hands-on program includes a curriculum that is carefully curated in consultation with the industry. The expert-led program helps you gain hands-on experience with cutting-edge tools and techniques, and enhance your career prospects in this rapidly expanding field.



In India, the demand for AI professionals has surged by

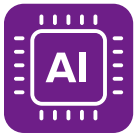
60%

in just the past year, with an anticipated

1.2 million

new jobs in AI-related fields by 2030.

PROGRAM HIGHLIGHTS



Learn how to **build and deploy GenAI models**



Get certified from a **NIRF top 10 rated** institution



Live classes every weekend for interactive learning



6 months and **200+ hours** of in-depth hands-on learning



Learn from industry leaders and **IIT Guwahati faculty**



Curated curriculum with in-demand tools and technologies



Live doubt clarification sessions with instructors



Learn through **projects, case studies and hackathons**



Immersion Program at the prestigious IIT Guwahati Campus



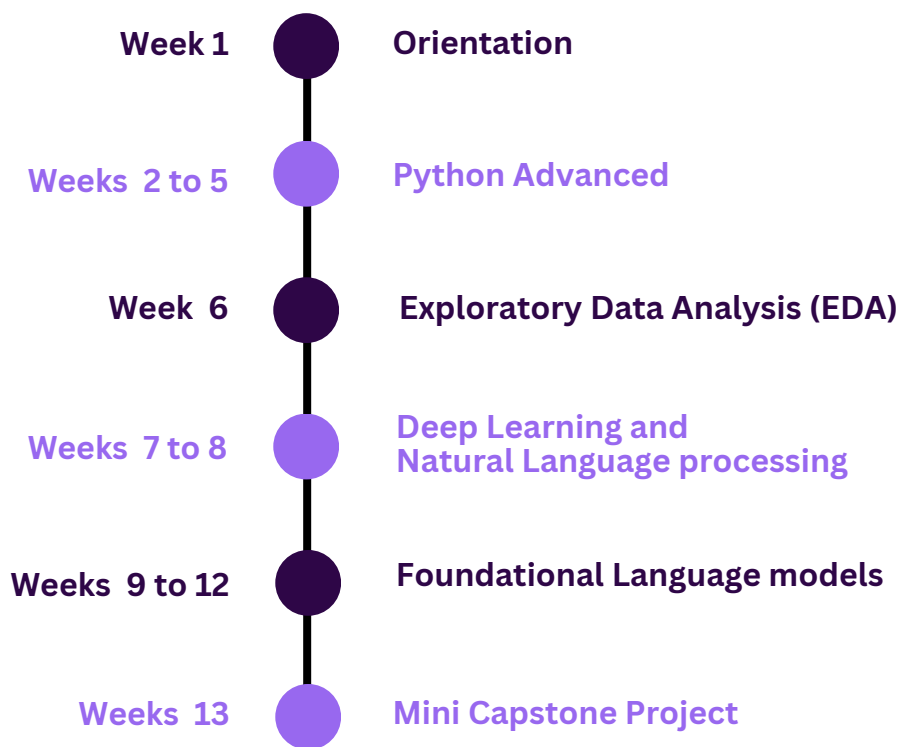
Get career services including **placement assistance**



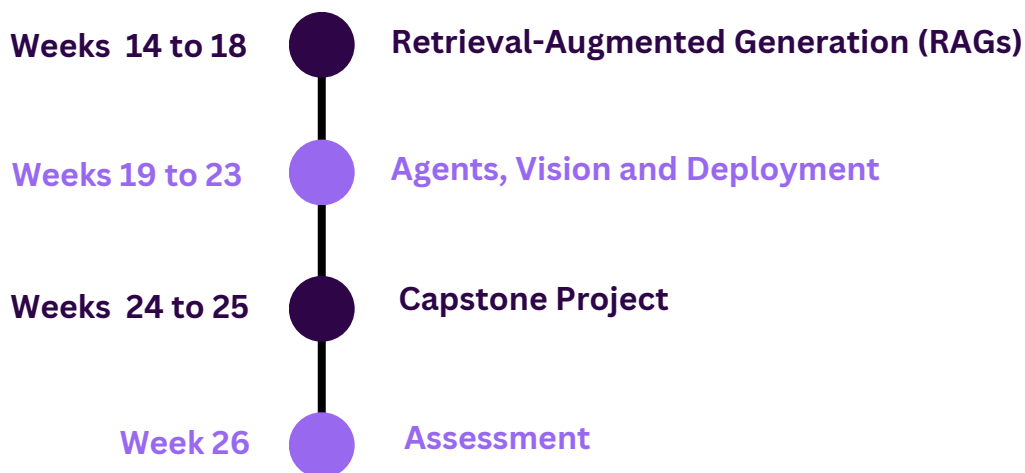
Alumni Status of **E&ICT Academy, IIT Guwahati**

LEARNING PATH

PHASE I THE FUNDAMENTALS 13 WEEKS



PHASE II GENERATIVE AI 13 WEEKS



2 DAY GRADUATION AND CAMPUS IMMERSION, AT IIT GUWAHATI CAMPUS

After successfully completing the program, learners can attend a 2-day Campus Immersion Program at IIT Guwahati as per the timelines set by IIT Guwahati.



Curriculum

Orientation

- Introduction to Curriculum & Program structure
- Getting familiar with the LMS & Odin Labs
- A walk through of a GenAI product and the engineering behind it

Python Advanced

- Recursion
- Lambda Functions
- Higher Order Functions
- Numpy
- Pandas
- Date-time
- Regular Expression
- OOPs- class, Object, Principles of OOPS
- Decorators, Exception Handling, File Handling, Generators

Exploratory Data Analysis (EDA)

- Data pre-processing and exploration
- Handling missing values
- Handling outliers
- Dealing with categorical variables
- Introduction to ML and SKlearn
- Handle Date columns and column with multiple values
- Feature Scaling
- Covariance & Corelation
- EDA Project

Foundational Language Models, Fine tuning

- Foundational Language Models
 - LLAMA3 Instruct 8B / 70B
 - LLAMA3 Chat
 - LLAMA3 code
 - E5 embedding
 - MIXTRAL 8X7B
 - SLMs (PHI3, bitNet B1.58)
- Planning & Reasoning
- Transformer Architecture
- Types of Attention
- Types of positional embedding
- Long context
- Enhancing LLM throughput on GPUs
 - KV Cache
 - Flash attention
 - VLLM
 - TRT LLM
 - Input / Op token length
 - Tokenisation strategies
 - Long rope
- Para Efficient Fine tune (LORA, P tuning, finetuning of embedding models)

Deep Learning (DL) and Natural Language Processing (NLP)

- Perceptron indepth intuition and implementation
- Multi-layer perceptron (ANN)
- RNN and its tpes
- Introduction to nltk, spacy libraries
- Tokenization
- Word embeddings
- Small project to create word embeddings

RAGs

- Alignment
 - RLHF
 - DPO
 - RPO
- RAGs
 - Advanced ingestion
 - Chunking
 - Embedding
 - Search
 - Ranking
 - Generation
 - Evaluation
- RAG frameworks
 - LLANGCHAIN basics
 - LLAMAINDEX
 - LLANGRAPH

Agents, Vision, and Deployment

- Agentic workflows and function calling
 - LLANGCHAIN advanced
 - AUTOGEN
- Gen ai for Images and videos
 - CLIP
 - UNETS
 - Diffusion models
- Containerised deployment and Kubernetes
- LLM deployment

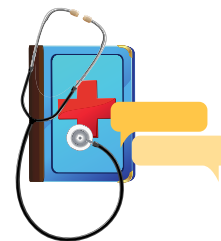
Learn In-Demand Tools and Technologies



25+ Projects and Case Studies for Hands-on Experience



Create an interactive application that allows users to query a specific website and receive contextually relevant responses



Develop an intelligent conversational interface for accessing medical information from a medical book



Simplify database querying by allowing users to input questions in plain English and receive corresponding SQL queries and results.



Provide an intuitive interface for exploring and understanding a code repository through conversational interactions

CAREER SERVICES

Career services give you the boost that you need to grow your career in the field of Generative AI.

Workshops on Workplace Behavioural Skills

Hone your personality to excel in a competitive work environment

Professional Profile Building

Learn how to build and optimise your resume and LinkedIn profile to get access to career opportunities

Interview Preparation

Participate in mock interviews by industry professionals and gain confidence to face your next big interview

Industry Connect

Attend OdinTalk sessions every week and interact with industry experts to see how technologies are implemented

OdinSchool's Job Portal

Find the latest 100+ job opportunities in Data Science and AI. Get shortlisted and crack that job

Mentorship

Get mentored by professionals and leverage the insights to transform yourself into a sought after professional

The Program Sets You on a Path for Multiple Job Roles



AI Developer



AI Engineer



AI Consultant



GenAI Developer



Applied AI Researcher



AI Architect



Data Scientist



ML Engineer



AI Solution Developer

ELIGIBILITY

You are eligible for the program if you are a graduate.

A background in mathematics or computer science and knowledge of Descriptive Statistics, Linear Algebra, SQL, and Python is preferred but not mandatory.

The program is highly recommended for working professionals in the below job roles:

Data analysts

Team leaders in tech companies

Software Developers

Python Developers

Software Consultants

Database managers and administrators

Business analysts

Junior Data Scientists

ML Developers

Data Engineers



Generative AI has the potential to change the world in ways that we can't even imagine. It has the power to create new ideas, products, and services that will make our lives easier, more productive, and more creative. It also has the potential to solve some of the world's biggest problems, such as climate change, poverty, and disease. The future of generative AI is bright, and I'm excited to see what it will bring.

-Bill Gates



LEARN FROM THE EXPERTS



Dr. Gaurav Trivedi
Principal Investigator
E&ICT Academy, IIT Guwahati



Dr. Mohit Sevak
GenAI Expert
Nvidia



Dr. B S A S Rajita
Lead Faculty
OdinSchool



Dr. Deepthi Chimalakonda
Head - Carbon & Biodiversity
Arkadiah Technology



Dr. Sandeep Singh
Lead Faculty
OdinSchool



Anidunnisa Begum
Lead Faculty
OdinSchool



Amit Goyal
Senior Data Science
Consultant



Dadavali Sheikh
Senior Data Engineer
LTI MindTree



K Sangamesh
Founder and CEO
KS Analytical Consulting



Naval Yemul
DataBricks Instructor
DataBricks

TESTIMONIALS AND SUCCESS STORIES

“

“Throughout my life, I've been fascinated by the realms of AI, inspired by its portrayal in science fiction and its real-world applications. This curiosity propelled me to delve deeper into the inner workings of these technologies, steering my academic journey toward a four-year immersion in Computer Science. However, despite my passion, I recognized a gap in the technical skills demanded by prospective employers. It was this realization that led me to OdinSchool, a pivotal decision that I am profoundly grateful for.

But it wasn't just about learning. OdinSchool also helped me get ready for the real world. Their career support was top-notch. From fixing up my resume to doing practice interviews, they had my back through it all.”

”

-Dibyajit, OdinGrad, Sep 2023

“

“I attribute much of my success to the comprehensive education and unwavering support I received throughout my journey with OdinSchool.

The teachers' unwavering support, personalized guidance, and willingness to go the extra mile ensured that I was never left wanting for assistance, even when grappling with complex concepts or challenging assignments.

Thank you, OdinSchool, for empowering me to realize my dreams and embark on a transformative journey of professional growth and fulfillment.”

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-Drishti Rawat, OdinGrad, Aug 2023

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“The curriculum is prepared in such a way that even non IT guy can learn all these technologies and they start from basic then gears up to advanced topics. The trainers also have vast knowledge in their respective subjects and they will clear all your doubts in the session itself and even if you get doubts during practice then you will have doubt sessions every week where your doubt will be addressed.

My message to new joiners who are willing to join Odin School is they will provide each and every thing you need for your preparation but you have to be true towards your preparation and be patient.”

”

-Thummaluru Haswanth, OdinGrad, May2023

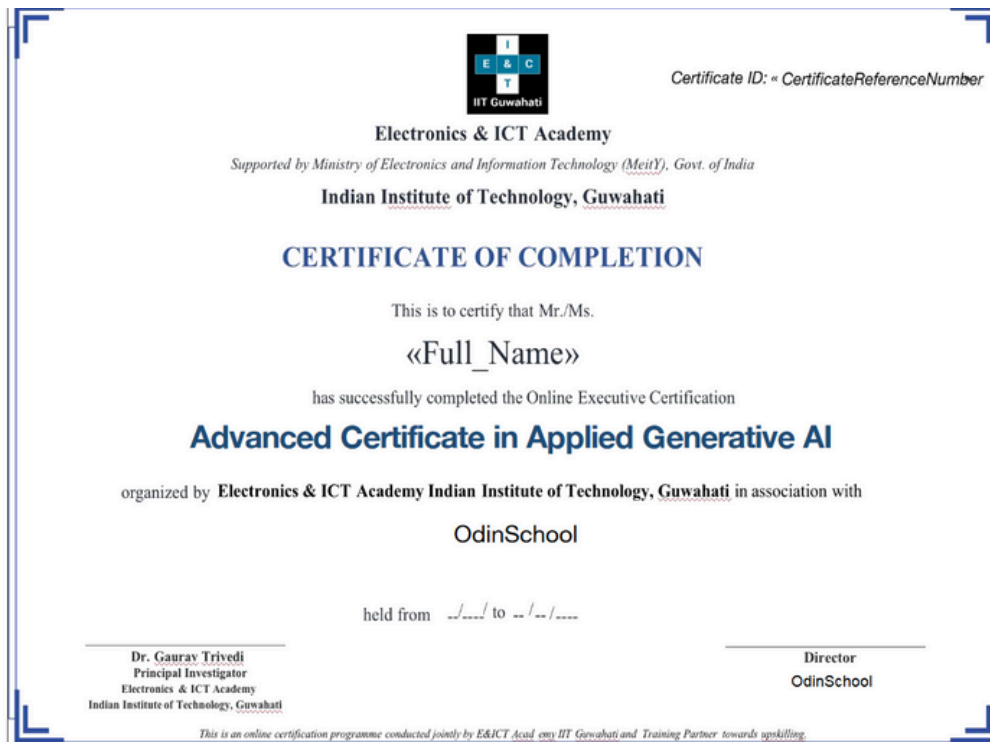
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One aspect that truly sets Odin School apart is its commitment to fostering a supportive and inclusive learning environment. The faculty, comprising distinguished professionals and mentors, spared no effort in guiding and nurturing students every step of the way. Whether it was through insightful lectures, interactive workshops, or one-on-one mentoring sessions, they went above and beyond to ensure that each student reached their full potential.”





”

-Subham Chowdhury, OdinGrad, Jan 2024

GET CERTIFIED BY E&ICT, IIT GUWAHATI



ENROLMENT PROCESS

-  **Step 1** Submit the application form
-  **Step 2** Talk to our counsellors and review eligibility
-  **Step 3** Complete documentation and pay the fee
-  **Step 4** Receive Admission Letter and start learning

FEE AND SCHOLARSHIPS

INR 1,20,000 + GST

Contact us to avail Scholarships
Easy finance and Zero-Interest EMI facility available

COURSE SNAPSHOT

START DATE:	Refer to the Course Page on the Website
DURATION:	6 Months (26 weeks, 300+ hours)
ELIGIBILITY CRITERIA:	A Bachelors degree Math or Computer Science background and knowledge of Descriptive Statistics, Linear Algebra, SQL, and Python is preferable, but not mandatory
WEEKLY SCHEDULE:	Live online sessions on Saturdays and Sundays Doubt clarification, project reviews, and industry interaction on weekdays
SCHOLARSHIPS:	Scholarships and Flexible EMI options available. Reach out to our counselors for more details on +91 935 501 1033.

CONTACT

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Hyderabad - 500033

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