# Advanced Certification in
# Full Stack Data Science with Gen AI & ML

6 Months | Blended Program

## In Collaboration with

**Electronics & ICT Academy**

**Indian Institute of Technology Guwahati**

An Initiative of Ministry of Electronics & Information Technology (Meity)

IIT Guwahati

# Industry Insights

- The Data Science market is set to reach USD 178 billion by 2025.
- Gen AI is forecasted to grow by 13.7% and reach USD 202.57 billion by 2026.
- The US Bureau of Labor Statistics (BLS) and the World Economic Forum (WEF) expect 11.5 million global Data Science jobs by 2026.
- Harvard Business Review has named "Data Scientist" "The sexiest job of the 21st century".

Data Science and Generative AI have become indispensable across industries. Companies now rely on data scientists to reveal insights and predict trends.

Yet, about 80% of professionals lack practical experience and exposure to real-world datasets. Karmick Institute fills this gap, equipping professionals with job-ready skills to meet the high demand for Gen AI with Data Science expertise.

Take a look at some of the most rewarding job titles:
→ Data Scientist
→ Machine Learning Engineer
→ Data Analyst
→ Business Intelligence Developer
→ Data Engineer
→ Python Gen AI Engineer
→ Data Architect
→ AI Researcher
→ Business Analyst
→ Data Mining Analyst
→ Algorithm Engineer

*Source: TechGig, LinkedIn & Statista*

₹18.00 LPA
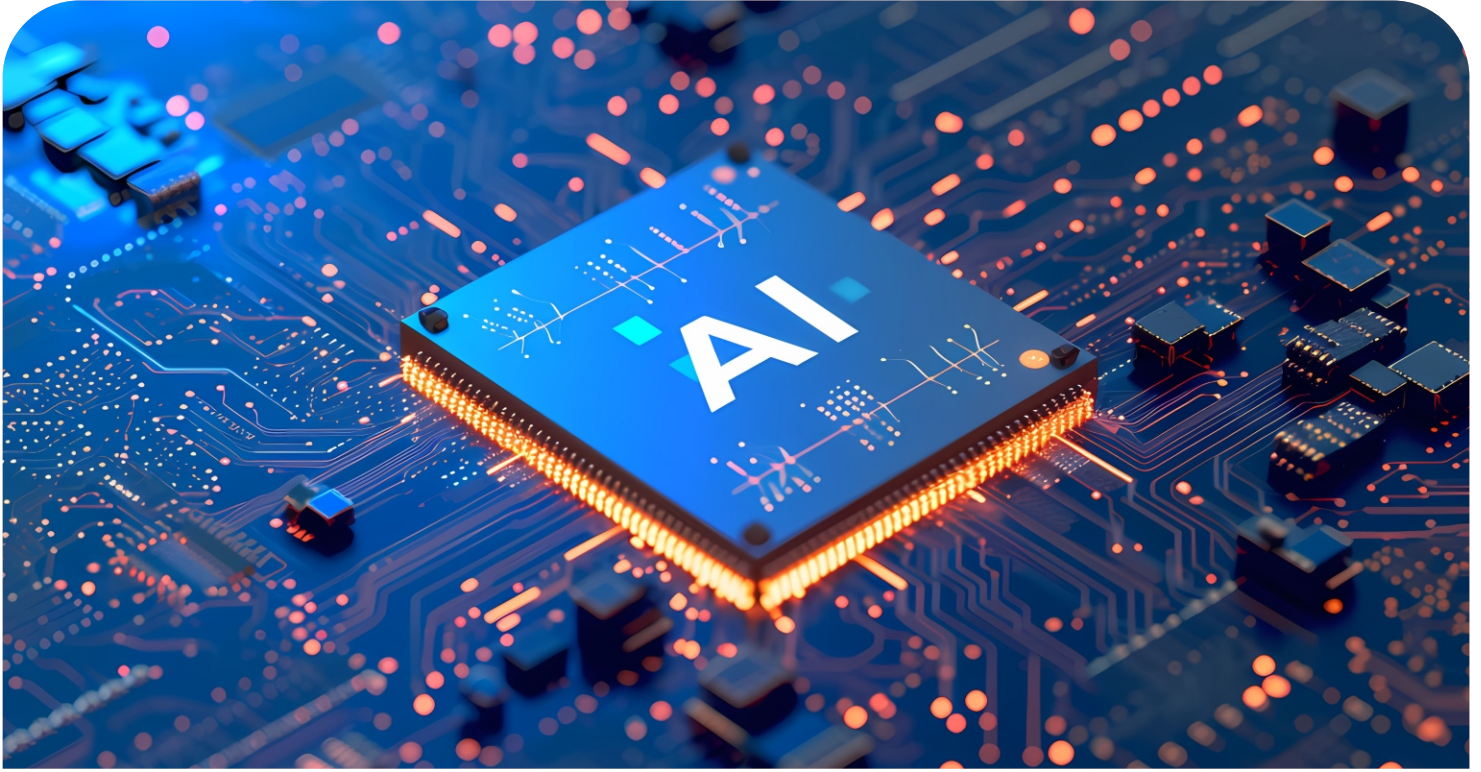Average Salary

10,000+
Companies Hiring

30%
Surge in Data Science Jobs in India 2023

137,000+
Job openings in India by 2025

**KARMICK INSTITUTE** + IIT Guwahati

- Karmick Institute's Advanced Certification in Full-Stack Data Science with AI & ML course, in collaboration with E&ICT Academy, IIT Guwahati, is your gateway to a thriving tech career.

- This course offers 170+ hours of expert-led training on Advanced Python, Object-Oriented Programming in Python, SQL, Business Analytics, Artificial Intelligence, ChatGPT, Data Visualisation with Matplotlib, Machine Learning Algorithms, Tableau, Big Data Architecture, TensorFlow, Microsoft Power BI, and more.

- You will work on live industry projects using real-world datasets.

- The best part of this course is the highly prestigious E&ICT-IIT certification. It will elevate your profile and highlight you in the hiring landscape.

- You will benefit from 100% placement assistance, access 600+ hiring partners, and secure top roles in the booming $178B data science domain.

- Join a dynamic learning community and gain cutting-edge skills for a rewarding future in technology!

**KARMICK INSTITUTE** + **E & C IIT Guwahati**

# About Karmick Institute (KI)

Karmick Institute is among the highly distinguished IT tech training institutes in Kolkata. It offers Advanced Certification Programs in various high-demand tech courses in partnership with E&ICT Academy- IIT Guwahati. These advanced tech courses include Full-Stack Data Science with AI & ML, Full-Stack Web Development (MEAN + MERN, Laravel+ Vue.js, Microsoft ASP.Net Core + Angular), Web Design with UI/UX, Advanced Digital Marketing, and Mobile App Development (Android and iOS).

Karmick has set a historic benchmark in leading the world of advanced-level certification courses where students can enrol in career-driven programs and avail themselves of hands-on labs, case studies, and real-time projects. If you are a highly ambitious aspirant looking to land your dream job in a top tech MNC, Karmick Institute is just the place for you.

## Karmick Institute's Integrity

**01** **Highly Skilled & Experienced Faculty Members**
We have an extensive team of highly competent faculty members who are seasoned professionals with a wealth of teaching and real-world experience.

**02** **Extensive Industry Knowledge & Expertise**
Our esteemed faculty imparts advanced insights from the core industries to build an impactful and career-focused curriculum.

**03** **Prestigious Awards & Long-Standing Recognition**
Our cutting-edge data science with AI & ML certification courses reflect our commitment to educational excellence and continue to help students land alluring jobs in leading tech firms.

**KARMICK INSTITUTE** + **E&ICT IIT Guwahati**

# About E&ICT Academy



The E&ICT Academy is a collaborative initiative between the Ministry of Electronics & Information Technology, IIT Guwahati, and the Government of India. It is dedicated to cultivating a skilled workforce of technically proficient youth and enhancing job opportunities in the country.

MeitY has developed a "Financial Assistance for Setting up Electronics and ICT Academies" scheme. It aims to provide specialized training in advanced Technology, Electronics, and Communication to the Arts, Commerce, Engineering, Polytechnics, and Science faculties. These training programs, which include practical sessions, case studies, and projects, are tailored for the corporate sectors and educational institutions.



E&ICT Academy at IIT Guwahati was inaugurated by Hon'ble Prime Minister **Shri Narendra Modi**

**Prof. Gaurav Trivedi**
Principal Investigator
E&ICT Academy
IIT Guwahati

# Executive Notes

**A message from Founding Member
Karmick Institute - Kolkata**

Dear Learner,

Congratulations on taking the next step towards a rewarding career in the tech industry!

I founded the Karmick Institute to empower ambitious individuals like you to thrive in their careers. We help you bridge the gap between theory and practice.

Our Advanced Certification courses in Full-Stack Data Science with AI & ML, Full-Stack Web and Mobile App Development, Web Design, and Digital Marketing are designed to provide in-depth knowledge and hands-on experience. Our 100% placement assistance equips you with the job-ready skills and confidence to excel.

Join us and together, we will build a brighter future for the tech industry.

*Warm regards,*
Sourav Roy

**A message from Principal Investigator
E&ICT Academy, IIT Guwahati**

Dear Students,

As the Principal Investigator of E&ICT Academy at IIT Guwahati, I am delighted to endorse Karmick Institute as our trusted offline training partner in Kolkata for their Advanced Certification in Data Science with AI & ML.

At E&ICT Academy, IIT Guwahati, we are dedicated to advancing education and research in modern technology fields such as Python Full Stack Development, Data Science, Data Analytics, Artificial Intelligence, and Cloud Computing.

I wish you great success in your educational journey with Karmick Institute, and I look forward to seeing you thrive and achieve remarkable milestones in these exciting career paths.

*Warm regards,*
Prof. Gaurav Trivedi

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# About the Program

| Course duration: | 6 months | | Total training hours: | 170+ hours |
|---|---|---|---|---|

## Eligibility

Graduates, post-graduates, working professionals, college students
[No prior experience required]

## The course is ideal for

Students aiming to launch a successful Data Science career or upskill with an Advanced IIT certification.

# Plans & Pricing

## TechMaster

**KARMICK INSTITUTE**

₹1,02,740

₹ **75,000**

**You save 27%**

*Pay in easy 3 Equal Parts - 0% interest EMI

- ⊘ 1000+ coding problems and assessments
- ⊘ Participation in industry seminars
- ⊘ 100 % Job assurance
- ⊘ 50+ mock interviews with dedicated career coaches
- ⊘ Industry Recognized Certification with verifiable credentials.
- ⊘ Credible & Shareable certificate

## Most Popular

## TechMaster Pro

**KARMICK INSTITUTE** + **E&ICT Academy IIT Guwahati**

₹1,66,667

₹ **1,05,000**

**You save 37%**

*Pay in easy 3 Equal Parts - 0% interest EMI

**All benefits of classic TechMaster + plus so much more!**

- ⊘ Advanced Certification from E&ICT Academy, IIT Guwahati
- ⊘ Guest lectures from EICT-IITG faculty
- ⊘ Campus immersion at EICT-IIT Guwahati
- ⊘ Prestigious certification that is best in the industry
- ⊘ 1:1 interactions with SENIOR HR VETERANS
- ⊘ Quizzes, Coding Practice, Assessment (Capstone Project)

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# Curriculum Outline

Our Advanced Certification course is designed by experts from IIT Guwahati and industry veterans. Each module provides comprehensive training, practical labs on industry-approved projects and job-ready skills for a financially rewarding career.

| Sl. | Module Name | Type | Session | Hours | Batch |
|-----|-------------|------|---------|-------|-------|
| 01. | Introduction to Computer Programming | Live | Blended | 30 | Standard |
| 02. | Numerical Programming in Python | Live | Blended | 30 | Standard |
| 03. | Relational Databases | Live | Blended | 20 | Standard |
| 04. | Data Visualization Tools | Live | Blended | 30 | Standard |
| 05. | Applied Statistics | Live | Blended | 20 | Standard |
| 06. | Introduction to Machine Learning (ML) | Live | Blended | 20 | Standard |
| 07. | Interview and English Preparation | Live | Blended | 20 | Standard |

*Please note: The duration of programs is approximate and may vary from one batch to another.*

## Tech Covered

**SQL**
Database Management Language

**Python**
High-Level Programming Language

**MatPlotLib**
Comprehensive Python Programming Library

**Scikit-Learn**
Python Machine Learning Library

**Tableau**
Data Visualization Tool

**Power BI**
Data Visualization Tool

**TensorFlow**
Open-Source Machine Learning Framework

**Gradio**
Interactive ML Demo Builder

**Dall-E**
AI Generator

**Hugging Face**
NLP Model Repository

**LangChain**
LLM application framework

**OpenAI**
GENAI Research Laboratory

**NumPy**
Numerical Computing Library

**Pandas**
Data Analysis & Manipulation Tool

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## 01 Introduction to Computer Programming:

In this module, students will learn the Python programming language in detail, along with all its functions, syntaxes, commonly used data structures and methods. This module will also cover the core concepts of OOP (object-oriented programming) using Python and offer a project-based learning experience in data science using Python.

## 02 Numerical Programming in Python:

In this module, students will learn the fundamentals of numerical computing using Python programming, including working with libraries like NumPy for array manipulations, and performing mathematical computations essential for data science and engineering applications.

## 03 Relational Databases:

In this module, students will learn to use SQL to manage databases (e.g., add, delete, manipulate, and retrieve data).

## 04 Data Visualization Tools:

In this module, students will learn to use Tableau and Power BI to create data visualizations, and communicate insights and trends through data analysis techniques.

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## 05 Applied Statistics:
In this module, students will apply mathematical and statistical formulas to analyze numerical data. It will cover Probability, Data Structures and Distributions, Sampling Techniques, Hypothesis Testing and more.

## 06 Introduction to Machine Learning (ML):
In this module, students will learn the key algorithms and models in ML, NLP (Natural Language Processing) and Deep Learning. Their learnings will be supported by hands-on labs on live projects.

## 07 Interview and English Preparation:
This module will offer a range of resources, materials, workshops, soft skill practice sessions and mock interviews to prepare the students for interviews and build confidence in their professional journey.

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# Capstone Projects

Our Advanced Certification course in Full Stack Data Science with AI & ML includes a real-world Capstone Project challenge after each module. This project aims to enable students to apply their knowledge of LLM in data science to practical environments, gain relevant project management skills, and exercise their technical capabilities hands-on. The Capstone Projects expose them to real-world industry challenges and build practical, analytical, and problem-solving skills and job-ready expertise to lead projects confidently.



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# Faculty, Mentors & Experts

## Our Highly Acclaimed IIT Faculty,  Mentors & Industry Experts

### Suman Bose
Ex. MD & CEO, Siemens India | Country Director & Head, Dassault Systemes MBA, Harvard Business School, US | B.Tech., IIT Roorkee

### Shivam Dutta
Data Scientist, Worked in Jio, Reliance Co-Founder & CEO, AlmaBetter, IIT Kharagpur

### Souvik Dutta
Ex. Lead Data Scientist, R P Sanjiv Goenka Group | Ex Senior Consultant, Genpact, M.Sc Cybersecurity, B.Sc Economics, Calcutta University

### Ashis Mukherjee
Ex. CTO, President of Navin Fluorine, PI Industry, Senior Principal Scientist, Chembiotek Post Doc. The Rockefeller Univ. US | PhD Stony Brook Univ. US | IIT Delhi

### Snehashish Raichowdhury
Ex. World Bank | ADB Harvard University | BITS Pilani | Arch. Javadpur

### Dr. Gaurav Trivedi
Associate Prof. & Principal Investigator, E&ICT Academy, IIT Guwahati, M.Tech, PhD & Post Doc., IIT Bombay

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## Learning Resources

**Karmick Institute's Learning Management System (LMS):**
Our institute offers a dedicated, all-in-one platform for achieving advanced certifications in Full Stack Data Science with AI & ML, Web and Mobile App (iOS, Android) Development, and Digital Marketing. Our LMS delivers an immersive and structured learning experience with a rich library of lectures, resources, Q&A, quizzes, summative assessments, capstone assignments, and more. Students can access recorded sessions, track progress, interact with instructors and peers, and view course and payment details.

## Study Material

### E-Books:
Discover our extensive e-books on advanced tech topics, thoughtfully tailored to align with your course studies and boost your job readiness.

### Blogs:
Our curated blogs provide essential job-critical skills to help you land your dream tech role with expert industry insights to deepen your knowledge.

### Articles:
Our insightful articles are penned to maximise your career success and enhance your job prospects in the tech industry.

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# Certification

## E&ICT Academy, IIT Guwahati Certification

A Course Completion Certificate awarded by E&ICT-IIT Guwahati, an initiative supported by the Ministry of Electronics and Information Technology (MeitY), Government of India.
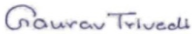
## Sample Certificate

Certificate ID: EICT/xxxx/xxx/xx/xxx

**KARMICK INSTITUTE**
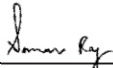
**Electronics & ICT Academy**

*Supported by Ministry of Electronics and Information Technology (Meit Y), Govt. of India*

**Indian Institute of Technology, Guwahati**

### CERTIFICATE OF COMPLETION

Presented to

## Chirantan Ganguly

on successful completion of Six months

**"Advanced Certification in Full Stack Data Science with Gen AI & ML"**

organized by Electronics & ICT Academy Indian Institute of Technology, Guwahati
completed on [Completion Date]

**Dr. Gaurav Trivedi**
Principal Investigator
Electronics & ICT Academy
Indian Institute of Technology, Guwahati

**Saurav Roy**
CEO & Founder
Karmick Institute

## In Collaboration with

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

**KARMICK INSTITUTE** + IIT Guwahati

## Karmick Institute Certification

Certificate of Achievement endorsed by industry experts upon Course Completion, awarded by Karmick Institute.

## Certificate

**KARMICK INSTITUTE**

### Certificate
Of Completion

This certificate is presented to

*Chirantan Ganguly*

for successfully completing his 6 months course on

**Data Science Course with Gen AI & ML**

The student has demonstrated proficiency, commitment, and the ability to apply advanced concepts in real-world scenarios.

Sourav Roy
CEO & Founder

**KARMICK INSTITUTE**

25/03/2025
Date

Full Stack Data Science with Gen AI & ML

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## The Karmick Institute Community

- Join a community of 1800+ successful tech professionals and 3000+ students.

- Get mentored by 30+ distinguished faculties from IIT, ISI and industry veterans.

- Get coached by top career counsellors and a placement team dedicated to offering 100% placement support.

- Connect with 600+ hiring partners and the industry's leading tech employers.

- Collaborate with your peers, exchange ideas and insights and get actionable feedback.

- Utilise premium career development resources, mock interviews, group discussions, resume building, interactive quizzes, assessments and hands-on projects.

- Access a dedicated and comprehensive LMS catering to all your learning needs.

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# Testimonials

## See what our Students have to Say

> *Good institute. Friendly teachers. Good environment. The course benefited me in many ways. Having the E&ICT-IIT Guwahati certificate has helped me crack my job. Doing this course helped me be a better person.*

**Bhaskar Bepari**
★★★★★

B

> *I'm doing a course from here. I am satisfied with the course. "Kajal Sir" is my Mentor. He is a very responsible teacher & also very friendly in his behaviour. Moreover, the behaviour of everyone in this institute is very welcoming.*

**Shibam Roy**
★★★★★

> *I am Soumitra Baug, a student at Karmick Institute. Karmick Institute is one of the best institutes. My instructors clearly explained the classes. They were knowledgeable and helpful. They beautifully clarify concepts I initially found difficult to understand. I was able to combine theory with practical applications. I have learned a lot from this institute. If I had questions, they were always willing to help. For me, this institute is truly the best.*

**Soumitra Baug**
★★★★★

S

> *I am a student at Karmick Institute. The teachers are very supportive and always there to help. With their help, I am enhancing my skills every day.*

**Dalia Mondal**
★★★★★

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## Our Success Stories

Karmick Institute propels students to success in the global tech industry. Our graduates have landed coveted roles at top MNCs like Cognizant, Capgemini, TCS, and Genpact. With a network of 600+ hiring partners and 100% placement assistance, our students are one step ahead in their professional journey.

Students learn python for data science, AI tools and GAN in deep leaning. Our industry-focused curriculum, hands-on projects, dedicated career counselling and assured placement assistance equip students with the skills to excel as data scientists, full-stack developers, and more.

Join us and let your success story be the next one!

**Enrol Now!**

# JOIN US

## and let your success story
## be the **Next One!**

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# Placements

## Our Students are Placed in



Company logos of placement partners including:

CMC Limited (Your IT Partner), TCS (Tata Consultancy Services), SBI, genpact, cognizant, Capgemini

Xavient Information Systems, STEROVIZ PIXELS, FAST INFO Group, Websadroit, TECHNO ARTIST INDIA, THATWARE

BLUE COPPER TECHNOLOGIES, Confiance, exactlly, WISH NET, VYRAZU LABS, AQM

codilar, OTECH Web Solutions Pvt Ltd, Lead Height, KEYLINE DIGITECH PVT. LTD., RPS Solutions, Minivet System

pedia, SARTHAK, RNJ, Stellar Track, BRISA TECHNOLOGIES, COMVAL IT Concept Pvt. Ltd.

CyberSWIFT, DEVANT IT Solutions, TECHNO INDIA GROUP, KUS SOFTWARE, KYLE INFOTECH, dreamtech software solution

DIGITAL WEB AVENUE Web Development Company, INFOSKY SOLUTIONS, TECHYUGA, Citytech, SAJ FOOD PRODUCTS, ARISU

RIGHT SOFTWAREWALA, digital piloto, Computer LAB, FACT, RPS learn..evolve An NIIT Subsidiary, mellow CORPORATION

DIGIDRUB, INFOSOLZ, nouriture EK NAYI SOCH, Maskin Web Solutions India, TECH EXACTLY, V ONE Technologies

FORTMINDZ, GrapeServices, Tranistics Data Technologies Pvt Ltd, allindia technologies

## KARMICK INSTITUTE + E&ICT IIT Guwahati

# Career Journey at Karmick Institute

**01 Enroll with Karmick Institute**
Earn an IIT-backed Full Stack Data Science with AI & ML certification to upskill for a promising career.

**02 Batch Classes**
Join scheduled batches with expert trainers. Maintain 90% attendance to secure placement.

**03 Hands-On Sessions**
Strengthen your skills through hands-on, practical training on Gen AI & ChatGPT.

**04 Live Industry Projects**
Gain real-world exposure with projects that prepare you for industry demands.

**05 Job-Ready Skills**
Equip yourself with trending tech skills and receive 100% placement assistance to kickstart your career.

**06 Interview Preparation**
Learn proven interview strategies to secure the next top tech opportunity.

**07 Soft Skills Training**
Develop communication and teamwork skills to excel professionally.

**08 Resume Preparation**
Build a standout resume with support from our placement team.

**09 Mock Interviews**
Our placement team is dedicated to boosting your confidence and polishing your responses.

**10 600+ Hiring Partners**
Benefit from our job placement partners to secure your ideal tech role.

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# Why Join Karmick Institute?

**Expert Faculty:**
Our students learn from seasoned professionals, including IIT and industry veterans, who bring valuable insights and mentorship.

**Industry-Aligned Curriculum:**
Our courses meet top MNC standards and are regularly updated to reflect the latest industry practices.

**100% Placement Assistance:**
We provide complete job support, including mock interviews, group discussions, soft skills training and resume building to prepare you for your dream job.

**High-Tech Learning Environment:**
We offer state-of-the-art learning facilities, cutting-edge technology, MNC-endorsed curriculum and personalised career counselling.
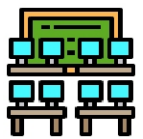
**Hands-On Learning Labs:**
Karmick Institute conducts practical sessions on live, real-world projects guided by our expert instructors.

**Highly Rated by Students:**
With a 4.6 rating on Google and outstanding reviews, our students trust and recommend us.

**Recognised Certifications:**
Our students earn E&ICT-IIT Guwahati-endorsed certificates that boost their employability in top MNCs.

**Personalised Support:**
Our students receive one-on-one guidance, career counselling, and tailored placement assistance to help them reach their goals.

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# Learn. Grow. Succeed with Karmick!

## Consult Our Career Experts.

## Launch Your Career in the Global Tech Industry.

**PRIMARY ADDRESS:**
SDF Building, 4th Floor, Module No.534
Sector - V, Salt Lake
Kolkata - 700091, West Bengal

**SECONDARY ADDRESS:**
116A, Purbalok (Premises No: 1118)
Street No: 6th, Kolkata - 700099
West Bengal

📞 +91-9836423755
✉ info@karmickinstitute.com

Scan to know more

## Karmick Institute

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