



E&ICT Academy, IIT Roorkee

Applied Data Science and Machine Learning With Python

Certification Program By E&ICT Academy, IIT Roorkee



Why Become a Data Scientist and Machine Learning Engineer

In today's evolving business environment, **data has been crowned the universal currency**. Competitive advantage is now also synonymous with how organizations can gather, analyze and assimilate learnings from data. Thousands of companies need team members who can transform data sets into strategic forecasts. Acquire in-demand data science and Python skills and meet that need.

Demand for data analysts has shot through the roof over the last 5 years. And, thanks largely to data coming in from the Internet of Things and advances in cloud computing, global data storage is set to grow from 45 zettabytes to 175 zettabytes by 2025.

Data science salary is quite lucrative and that is why many young IT aspirants are choosing data science as their career option.



About IIT Roorkee



Indian Institute of Technology - Roorkee is among the foremost institutes of national importance in higher technological education and in engineering, basic and applied research. The Institute ranks amongst the best technological institutions in the world and has contributed to all sectors of technological development. It has also been considered a trend-setter in the area of education and research in the field of science, technology, and engineering.

About E&ICT Academy

Electronics & ICT Academy IIT Roorkee (E&ICT IITR) is an initiative supported by MeitY, Govt of India. EICT IIT Roorkee delivers FDPs and certification courses in online as well as offline mode. Our courses lay emphasis on bridging the gap between industry demand and academic approach to learning and provide a foundation to build your career in the industries related to the ICT sector. All our courses have projects with real-life problems to give industry insights into learning. We have assimilated academic as well as industry experts to formulate the most effective courses that help professionals, students and faculty to upgrade their skills without disrupting their regular schedule.

Achievements



In Engineering
Category of NIRF
Rankings 2020



In Overall Category of
NIRF Rankings 2020



Among the IITs in the
'Citations per Faculty'
parameter in QS World
University Rankings, 2021



Best university in India
by the Times Higher
Education (THE) World
University Rankings 2019

Who should attend this Program?



Student



Professional



PassOut

Designed for Students/ Working Professionals, Fresh Graduates, Self-starters, Career transformers with essential work experience.



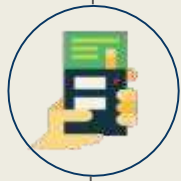
Program Features



Live Instructor-Led Sessions



Code Reviews by Experts



Hands-on Live Projects



One-on-One with Industry Mentors



Hands-on Learning



Personalized Feedback on Assignments



Fundamentals to Advanced



Value added soft skills sessions



Assignments and Multiple-Choice Questions



Ask Expert Anything Sessions

Program Highlights



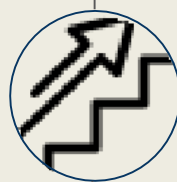
Certificate of Completion from EICT Academy IITR



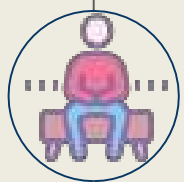
Hands-on Sessions by Industry Experts



Internship Certification from Industry Partner



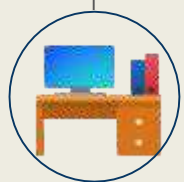
Career Guidance Sessions by Industry Expert



Placement Assistance by Delivery Partners



Doubt Clearing Session by Mentors



Internship Opportunity with Industry Partners



Resume Preparation by Industry Expert



Lectures from IIT Roorkee Faculties

Faculty and Course Advisors



Prof. Sanjeev Manhas
E&ICT Academy, IIT Roorkee

**Principal Investigator
and Program Advisor**
[Know More](#)



Partha Pratim Roy
CSE Department, IIT Roorkee

Expert from Academia
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Prof. Debi Prosad Dogra
Electrical Dept., IIT Bhubaneswar

Expert from Academia
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Kaushlendra Singh Sisodia
Director at Uniconverge Technologies, IIT
Kanpur Alumni

Industry Advisor
[Know More](#)



Mr. Sanjay Aggarwal
Uniconverge Technologies Pvt. Ltd.

Expert from Industry
[Know More](#)

Post Training Assistance

- Career Guidance Opportunities
- Long Term Internship Opportunity
- Long Term Mentorship
- Projects Support



Career Guidance Opportunities



Long Term Internship Opportunity



Long Term Mentorship



Projects Support

Course Curriculum

Introduction to Python Programming

- ☐ Python Installation
- ☐ String Operations
- ☐ Data Structures in Python
- ☐ Control & Loop Statements in Python
- ☐ Functions & Classes in Python
- ☐ Regular Expression
- ☐ Object Oriented Programming

Data Science and Machine Learning

- ☐ Data Science Introduction
- ☐ Machine Learning Introduction
- ☐ Python Essentials
- ☐ R Language Essentials
- ☐ Maths For Data Science
- ☐ Statistics For Data Science
- ☐ Data Preparation With Pandas
- ☐ Visualization With Python
- ☐ Application of Machine Learning
- ☐ Machine Learning Associate

Course Curriculum

- ☐ Advanced Machine Learning
 - ☐ Deep Learning – CNN Basics
 - ☐ Artificial Neural Network (ANN)
 - ☐ Sql For Data Science
 - ☐ Tableau Associate
 - ☐ M1 Model Deploy- Flask API
 - ☐ Data Science Project Execution
 - ☐ Machine Learning Project Execution
 - ☐ Big Data Foundation
 - ☐ Hadoop Concepts
-
- ☐ Text Mining (Web Extraction/Sentiment & Symantic Analysis)
 - ☐ Forecasting (Data Driven & Model Based Approach)
 - ☐ Incubation and Entrepreneurship Opportunities
 - ☐ Q&A Session
 - ☐ Project Discussion Session
 - ☐ Career Guidance Session
 - ☐ Effective Resume Building



Job Opportunities in DS and ML

Data Scientists are needed for businesses in every Industry. Even fortune companies as Google, Amazon, Apple, Facebook, Microsoft need data science experts who have in-depth knowledge of data extraction, data mining, visualization, etc. Some of the leading data science careers are,



Business Intelligence Developer



Applications Architect



Industry Architect



Enterprise Architect



Data Scientist



Machine Learning Engineer



Data Analyst



Data Engineer

Top Companies Hiring in India

accenture

Linkedin

amazon

Flipkart

fractal
INTELLIGENCE FOR IMAGINATION

manthan

ad
ABSOLUTDATA

uσ
Mu Sigma

IBM

ugam
POWERING ANALYTICS
INTO ACTION

latentview
Actionable Insights Accurate Decisions

EY

Deloitte.

KPMG

genpact

CITRIX®



Test & Evaluation

The assessment for the theory & practical part is based on a knowledge bank of questions created by field experts and approved by E&ICT Academy.

To pass the qualification, every trainee should score a minimum of 50% cumulatively (Theory and Practical).

Assessment Comprises the Following Components:

- ☐ **Attendance and Punctuality Report**
- ☐ **Weekly Assignments (Theory - Hands-On)**
- ☐ **Weekly Tests (Basic-Advanced)**
- ☐ **Project**
 - Synopsis Process Report
 - Complete Project Report

Program Offerings

Class Content

- Content Co-created with Industry
- Real-world project
- Project reviews
- Project feedback from Expert

Student Services


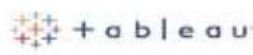
- Technical mentor support
- Student community

Career Services

- Personal Career Coaching
- Interview Preparations



Tools and Technologies











Skills Covered in Program



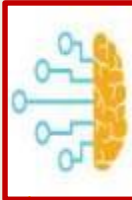
Python Programming



**Numpy, Pandas,
Matplotlib**



**Data
Preprocessing, Data
Visualization**



**Machine Learning,
Supervised and
unsupervised learning**



**Data Mining- Text
Mining, Decision Tree,
Arm, KNN & Naïve
Bayse, ANN & SVM**



**Statistics, Hypothesis
Testing, Linear and
Logistic Regression**



**Deep Learning – Cnn
Basics**



**Tableau, Big Data,
Hadoop Concepts**



**Natural Language
Toolkit (NLTK)**



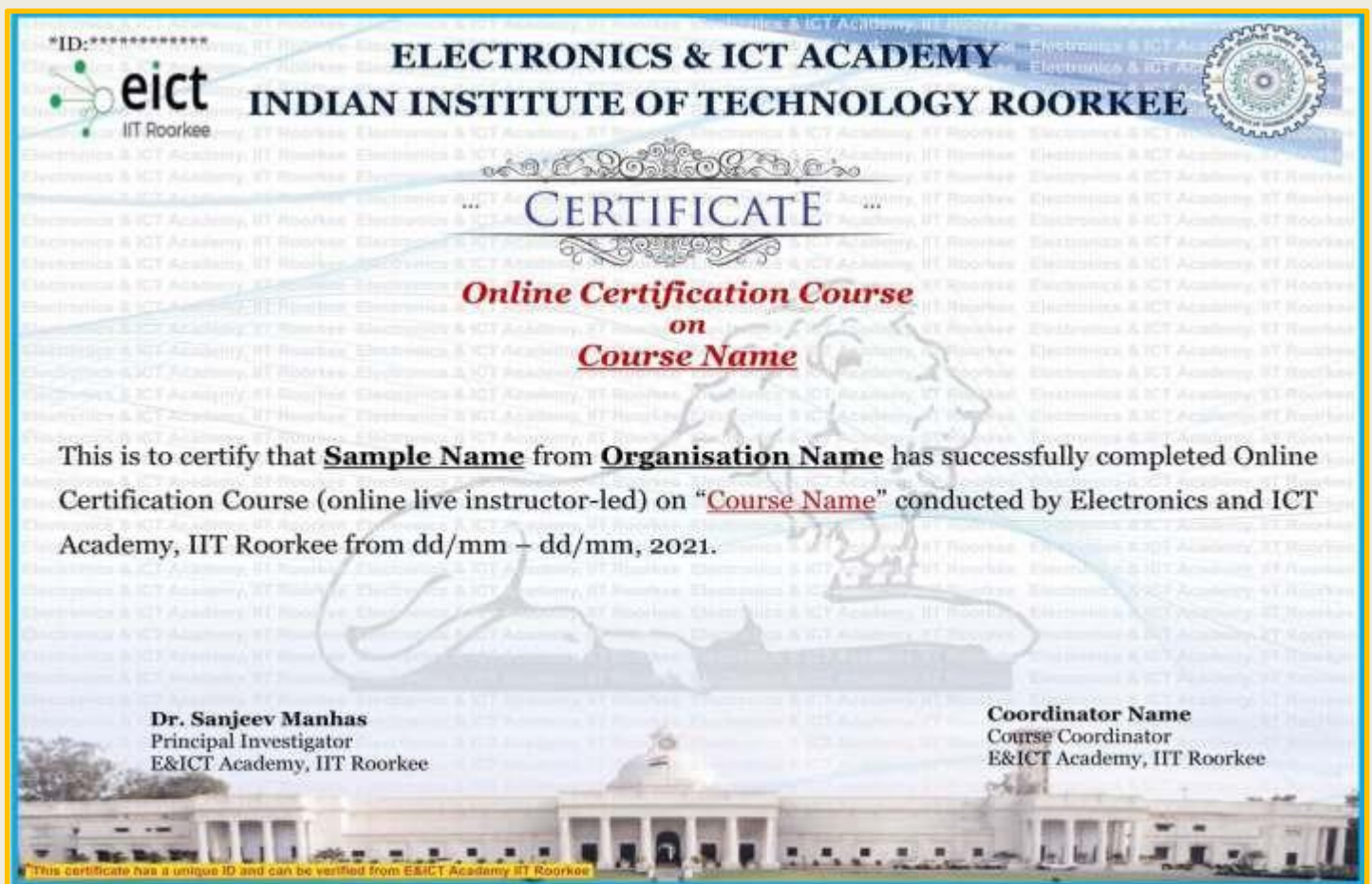
**Natural Language
Processing (NLP)**

Certification

Get eligible for 3 world-class certifications thus adding that extra edge to your resume.

All successful participants will be provided with

- Certification of Completion from E & ICT Academy, IIT Roorkee
- A project completion certificate from Uniconverge Technologies
- Internship Certificate from Partner Companies



Course Details and Fees

Please find more information about the program and fees here:

<https://eict.iitr.ac.in/certificate-course-in-ds-ml-using-python/>

For further information, connect to

E&ICT Academy, IIT Roorkee

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Uniconverge Technologies

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