रा.इ.सू.प्रौ.सं
NIELIT

under Ministry of Electronics and Information Technology,
Govt. of India

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Artificial Intelligence is the intelligence exhibited by machines or software. The application areas of artificial intelligence are very vast and so this is a field of study which is gaining importance day by day.

This branch of engineering emphasizes on creating intelligent machines that work and react like humans.

Course Highlights
- ✓ *Joint assessment and certification*
- ✓ *Lectures by faculty of NIELIT and IIT Ropar*
- ✓ *Major thrust on Hands-on training*
- ✓ *Course curriculum jointly designed by NIELIT and IIT Ropar*
- ✓ *Exposure & access to high standards of IIT & NIELIT's industry oriented approach*

Objective : This joint certification programme is being undertaken in since 2019 and covers not only the Python Programming and its fundamental data structures, rather participants also learn how to program and work on data science libraries like Numpy and pandas, apply data analysis, data cleaning techniques, data visualization.

Course Outcome
- ✓ *Industry Ready*
- ✓ *In depth practical knowledge of AI and ML*
- ✓ *Enhance Employability*
- ✓ *Visit to IIT Ropar*

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ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

The concept of Machine Learning, its models and implementation of its algorithms will be covered in detail. The deep learning algorithm in neural networks converting the domain of text and images will also be covered

Eligibility : 10+2 pass and pursuing B Tech / MSc / BSc (in any stream and any year) or MCA/ BCA (any year) or Diploma (IT/CS) pass or A Level

Fee : Rs.22,000 +18% GST (Rs.25,960.00)
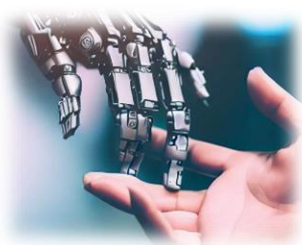Paid in two equal installments

Course Methodology

- ✓ *Instructor-led live classes*
- ✓ *Instructor-led hands-on lab sessions.*
- ✓ *Assignments and Project Work*
- ✓ *Hosting projects*
- ✓ *Project Demonstration*

Four module programme followed by Industry relevant Project :

- ✓ Python Associate
- ✓ Data Analyst
- ✓ AI and ML Expert
- ✓ Neural Networks and Deep Learning Professional

* Limited Seats

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Python Associate

- ✓ Programming with Python
- ✓ Jupyter notebook – Installation & function
- ✓ Python - Operators, Expressions and Python Statements
- ✓ Conditional Statements and Loops
- ✓ Sequence Data Types – List, Tuple, Set
- ✓ Input and Output in Python
- ✓ Dictionary, functions, Lambda Functions
- ✓ Modules and Functions in Python
- ✓ NumPy-arrays, indexing, slicing and iterating, reading csv into NumPy arrays

Data Analyst

- ✓ Data Science Concepts
- ✓ Advanced concepts in Numpy
- ✓ Pandas – Data frame, Series, EDA using python
- ✓ Reading and Writing data from Excel/CSV formats into Pandas
- ✓ Merging, Concatenating, Group by and aggregation on data frames
- ✓ Statistical Concepts and Functions
- ✓ Time Series Analysis and its models
- ✓ Data visualization using Matplotlib
- ✓ Grids, axes, plots, colors, fonts and styling
- ✓ Types of plots - bar graphs, pie charts, histograms, Scatterplot
- ✓ Web development using Flask

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

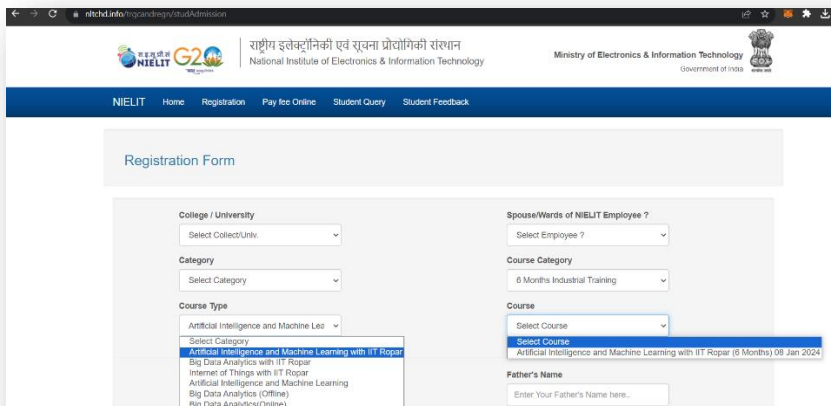## Artificial Intelligence & Machine Learning Expert

- ✓ Machine Learning - Categories of ML, Supervised, Unsupervised, Reinforcement, Semi Supervised.
- ✓ Regression, Classification, Naive Bayes, Support Vector Machines, Decision Trees, K-nearest Neighbors, Ensemble Methods of Classification, Machine Learning Evaluation Metrics, Overfitting and Under fitting, Cross Validation,
- ✓ Unsupervised - What is Clustering & its Use Cases, K-means Clustering, K-means algorithm, Hierarchical clustering, Hierarchical Clustering algorithm, High-dimensional clustering, Dimension Reduction-PCA
- ✓ Implementing different types of Supervised Learning algorithms
- ✓ Evaluating model output, Dimensionality Output

Neural Networks & Deep Learning Professional

- ✓ Artificial Neural Networks – ANN structure, Feed Forward Neural network, Back Propagation.
- ✓ Deep Learning Concepts, Convolutional Neural Network (CNN), Neural Network using Tensorflow.
- ✓ Learning Algorithms, Error correction and Gradient Descent Rules, Perceptron Learning Algorithm. Keras and PyTorch elements
- ✓ Computer Vision – Face Recognition and Detection with OpenCV, Face Recognizers, Training data, Prediction.
- ✓ Natural Language Processing – Basics of text processing, Lexical processing, NLP tasks in syntax, semantics, and pragmatics. Applications like Automatic Summarization, Sentiment Analysis and Text Classification, NLTK toolkit

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Registration link : https://nltchd.info/trgcandregn/studAdmission

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Testimonials

Anmol Nagpal
Jungleworks - clicklabs

"I am grateful for the excellent training in Artificial Intelligence and Machine Learning with IIT Ropar provided by NIELIT Ropar, which has led to my successful placement in a top company."

ARTIFICIAL INTELLIGENCE AND ML WITH IIT ROPAR

"I am extremely thankful for the exceptional training in Artificial Intelligence and Machine Learning received from NIELIT Ropar, which played a crucial role in my placement at a reputable company."

-
Harsimranjit Singh Mann
Hashmap Inc

Testimonial

Thank you very much

★★★★★

"I would like to extend my heartfelt gratitude to NIELIT Ropar for their exceptional training in Internet of Things (IoT) in collaboration with IIT Ropar. The insightful lectures delivered by the esteemed professors from IIT Ropar were instrumental in enhancing my understanding of IoT concepts and their practical applications. Thanks to their invaluable guidance and support, I am thrilled to have been placed at RIL (Reliance Industries Limited), a global leader in various industries, where I can leverage my IoT skills to drive innovation and contribute to the development of advanced technologies for a sustainable future."

Ashutosh
R I L

ABHINAV MAHAJAN
TECH MAHINDRA

"I am honored to express my heartfelt gratitude to NIELIT Ropar for their distinguished training in Artificial Intelligence and Machine Learning, which has been instrumental in securing a coveted position in a prestigious company."

NIELIT Chandigarh and IIT Ropar

under Ministry of Electronics and Information Technology, **Govt. of India**

Six Months Joint Certification Programme in

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

MY TESTIMONIAL

I would like to express my sincere appreciation to NIELIT Ropar for their exceptional training in Artificial Intelligence and Machine Learning. Thanks to their guidance and support, I am thrilled to have been placed at Byju's, a leading ed-tech company renowned for revolutionizing the education industry.

SIMRAN
BYJUS

SAGAR GAIKWAD

★★★★★

"I am immensely grateful to NIELIT Ropar for their comprehensive training in Blockchain Certified Professional. The course content and delivery by the expert faculty have equipped me with the necessary knowledge and skills in blockchain technology. Thanks to their guidance and support, I am delighted to have acquired the expertise required for blockchain implementation and have been placed in a prestigious company, where I can contribute to the advancement of this transformative technology."

Blockchain Certified Professional
CURRENTLY WORKING AT SANELO

TESTIMONIAL

"I extend my heartfelt gratitude to NIELIT Ropar for their exceptional training in Artificial Intelligence and Machine Learning. Thanks to their unwavering support, I am proud to have been placed at Tata Consultancy Services, a prestigious organization known for its commitment to innovation and excellence."

Jagisha - Tata Consultancy Services

TESTIMONIAL

★★★★★

"I am immensely grateful to NIELIT Ropar for their remarkable guidance in Artificial Intelligence and Machine Learning. Thanks to their invaluable support, I have secured a rewarding position at UST, a renowned global technology company known for its cutting-edge solutions and client-centric approach."

RAGHAV - UST

NIELIT Chandigarh and IIT Ropar

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Contact Us

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