

Course Brochure

Of

AI Development Associate (NSQF Level-4)



Jan 2024

National Institute of Electronics and Information Technology

An Autonomous Scientific Society under
Ministry of Electronics and Information Technology, Government of India

NIELIT Gorakhpur
Deoria Road
Gorakhpur (U.P.) -273010

NIELIT Extension Centre Lucknow
NIELIT Lucknow
Sumit Complex, A-1/9, Vibhuti Khand,
Gomti Nagar, Lucknow – 226010

CONTENTS		
Sl. No.	Title	Page No.
1.	About the course	2
2.	NIELIT	2
3.	Objective of Course	2-3
4.	Job Role of Course	3
5.	Eligibility	3
6.	Duration of Course	3
7.	Course Fees	3
8.	Course Details	4
9.	Important Instruction	5
10.	Admission Procedure	5
11.	About Examination Pattern:	6
12.	Query/Inquires	7

1. About the Course:

Government worldwide is working on creating comprehensive national AI strategies to create sustainable, inclusive and positive impact on its citizens, industries and overall societies. However, AI skill crisis is recognized as the biggest barrier for wider AI adoption there is an urgent need for demystifying AI and democratizing understanding of AI through appropriate AI readiness programs for current & future workforce. Five of the top ten emerging jobs in the US require specific AI skills. A skilled and competent workforce is the foundation for growth of any nation and industries, enabling the economy to adjust to disruptions. An AI driven economy will require a new look at the nation's workforce development approach including ways to empower non tech audience with AI social and tech skills for real world applications..

2. NIELIT

National Institute of Electronics and Information Technology, NIELIT, (Erstwhile DOEACC Society) is an autonomous scientific society of the Ministry of Electronics & Information Technology, Government of India. The Society is registered under the Societies Registration Act, 1860. NIELIT was set up to carry out Human Resource Development and related activities in the area of Information, Electronics & Communications Technology (IECT). NIELIT is engaged both in Formal & Non-Formal Education in the areas of IECT besides development of industry oriented quality education and training programmes in the state-of-the-art areas. NIELIT has endeavored to establish standards to be the country's premier institution for Examination and Certification in the field of IECT. It is also one of the National Examination Body, which accredits institutes/organizations for conducting courses in IT and Electronics in the non-formal sector.

3. Objective of the Course:

AI Development Associative Course Objective is that the learner will work with one growing Future Skill Technology that is more acceptable in industry as well as Government Organization, mainly due to its simplicity and large community. PAI is easy to use, powerful and versatile Technology for AI Developer. This course introduces Various Smart Tools to Design AI Problem like data visualization and algorithm. Students are introduced to also core programming concepts of Python Programming the course content theory and practical both so that students understand concept and code to implement the program in an organized way. Also understand employability skill and work of organization.

After completing the Course, the learner will be able to:

- Students will be able to give examples of how AI is being used in the world.
- Students will be able to Identify SMART components and tell what each acronym means.
- Students will be able to create a machine learning model for 6 industry-relevant applications using Orange Data Mining Tool.

- Student will be able to recognize basic Python syntax Student will be able to create data visualization using the tools inside Tableau Public.
- Student will be able to recognize Python libraries and distinguish the differences between NumPy, pandas, matplotlib and scikit-learn.
- Students will be able to use AI models to solve various industry applications using Python.
- Student will be able to explain Entrepreneurial Mindset and describe the importance of it in the context of opportunity curtain for future jobs.
- Students will be able to describe the differences between Supervised, unsupervised, and reinforcement learning.
- Students will be able to describe Computer Vision, Statistical Data, Natural Language Processing and current applications of the technology.
- Students will be able to explain what AI Project Pitfalls in relation to the AI project cycle.
- Students will be able to evaluate their results against bias and variance.
- Students will be able to define and qualify AI models.
- Students will be able to get the additional skills apart from the technical skills, to be job ready

4. Job Roles of the Course:

After successful completion of the qualification the candidates shall be employed in the industries for following occupations:

- AI/ML Engineer
- Deep Learning Engineer
- AI - Business Intelligence Analyst

5. Eligibility:

Pursuing 1st Year of UG in any discipline/12th Grade Pass/Completed Second Year of the 3-Year Diploma in CS/IT/EC/EE/allied after 10th.

6. Total duration of the Course

570 Hrs (Theory: 120 Hrs, Practical/Tutorial:150 Hrs, OJT Mandatory: 240 Hrs,ES:60 Hrs)

7. Course Fees:

Course Fees:23940+@ 18%GST

- Registration Fees+ Examination Fees also Applicable at the time of Registration and examination form filling for all Students.
- No Course Fees for SC/ST Candidates

8. Course Details:

S.No	NOS	Module Topics	Duration (Hrs)		Total Duration (Hrs)
			TH	PR	
1	Implementation of Basic AI Solution using Python programming language and SMART Framework.	<ul style="list-style-type: none"> ➤ SMART component and tell what each acronym means. ➤ AI project cycle Orange Data Mining tool. ➤ An introduction to Python programming language. ➤ Tableau Public 	15	15	30
2	Solving use cases using AI models along with building up Entrepreneurial Mindset	<ul style="list-style-type: none"> ➤ Introduction to Python libraries & AI models to solve various industry applications using Python. ➤ Design Thinking and AI bias & Entrepreneurial Mindset 	25	35	60
3	Realization of Projects in AI domains with understanding of AI Project Pitfalls	<ul style="list-style-type: none"> ➤ Supervised, unsupervised, and reinforcement learning ➤ Computer Vision, Statistical Data, Natural Language Processing, and current applications of the technology ➤ 5 pillars of Social Emotional Skills ➤ AI ethics ➤ Project Pitfalls in relation to the AI project cycle ➤ IoT ➤ Intel's oneAPI library 	70	80	150
4	Solving of Real time industrial problem statements using AI	<ul style="list-style-type: none"> ➤ Qualify data from multiple sources. ➤ Evaluate data for attributes. ➤ Bias and variance. ➤ Define and qualify AI models. 	10	20	30
Sub Total			120	150	270
5	Employability Skills		60		60
6	Implementation of AI project in virtual environment/ OJT		240		240
Total Duration					570

For More Course Details: [click here](#)

9. Important Instruction:

Course Admission	Open
Last Date of Admission/Fees Payment	08.01.2024
Course Start Date	08.01.2024

10. Admission Procedure:

All interested candidates are required to Collect Admission form form

NIELIT Lucknow, A-1/9 Sumit Complex Vibhuti Khand Gomti Nagar Lucknow with

the Course fees on or before 8th Jan 2024.

- Self-attested copy of Degree certificate /Consolidated Mark sheet
- Self-attested copy of Semester mark sheets and College ID (only applicable for candidates who are currently studying)
- Self-attested copy of Govt. issued photo ID card (Only Aadhar Card)
- Passport size photograph
- Cast Certificate(SC/ST/OBC) if any
- Aadhar Card(Compulsory for SC/ST Candidate)

Discontinuing the course: No fees under any circumstances shall be refunded in case of a student discontinues the course.

No certificate shall be issued if discontinued.

Mode of Training: Offline Classroom Based Training Certification.

After Successful completion of the course, the examination will be conducted, and accordingly Certificate will be issued.

11.About the Examination Pattern:

The assessor carries out theory online assessments through remote proctoring methodology. Theory examination would be conducted online and the paper comprise of MCQ. Conduct of assessment is through trained proctors. Once the test begins, remote proctors have full access to candidate's video feeds and computer screens. Proctors authenticate the candidate based on registration details, pre-test image captured and I- card in possession of the candidate. Proctors can chat with candidates or give warnings to candidates. Proctors can also take screenshots, terminate a specific user's test session, or re-authenticate candidates based on video feeds.

- Pass percentage would be 50% marks in each component.
- Candidates may apply for re-examination within the validity of registration (only in the assessment component in which the candidate failed).
- For re-examination prescribed examination fee is required to be paid by the candidate only for the assessment component in which the candidate wants to reappear.
- There would be no exemption for any paper/module for candidates having similar qualifications or skills.
- The examination will be conducted in English language only.

Assessment Components	NOS Included	Duration (in Mins)	Marks
Theory1:AI Application Associate Paper-1	NOS 1, NOS 2, NOS 4	90	100
Theory2:AI Application Associate Paper-2	NOS 3	90	100
Practical	NOS 1, NOS 2, NOS 3, NOS 4	-	90
Internal Assessment	Employability Skills	-	30
Project	Implementation of AI project in virtual environment/ OJT	-	30
			Total:350

Minimum Pass Percentage – The pass percentage is 50% in each assessment component (as mentioned in the above table) with the aggregate pass percentage be 50%

For Any Query Feel Free to Call: 7706009306, 7706009313

OR

Scan QR Code



NIELIT Lucknow

Sumit Complex, A-1/9, Vibhuti Khand

Gomti Nagar, Lucknow - 226010

Phone: 91 - 522 - 2720590, 3067900