National Institute of Technology Raipur

Continuing Education Cell (CEC)

Certificate Course (Online-mode)

on

"Artificial Intelligence & Machine Learning Innovations in Geology and Water Resources: From Theory to Practice (AIMILGWR-2024)"

17th August - 31th August, 2024 (02 Hrs each day from 05:30PM to 07:30PM)

About Course

Objectives of Training Programme: This course is designed to provide an in-depth understanding of the application of artificial intelligence & machine learning techniques in geology, water resources development, and management. The course will emphasize practical applications and real-world case studies, including, geology, hydrogeology, environmental geology, remote sensing, and GIS applications for water resources management.

About CEC

Continuing Education Cell (CEC) , NIT Raipur aims to update skills, broaden knowledge, enhance qualifications, foster personal growth, and promote National and International technological advancement through training and expertise.

About NIT Raipur

National Institute of Technology Raipur (An Autonomous institute of National Importance) fully funded by the Govt. of India. NIT Raipur is located in Raipur, the Capital City of Chhattisgarh State and spread over an area of approx. 100 acres. NIT Raipur is ranked 70th in engineering category in India by the NIRF, and it is the highest ranked engineering college in Chhattisgarh. Presently NIT Raipur offers 12 undergraduate, 14 Postgraduate (including M.Sc., M.C.A and M.Tech. in Applied Geology) and 18 Ph.D. programs. The institute offers facilities for research and also undertakes R & D activities, provides testing, consultancy and other extension services including continuing education to the industry through the Industry Institute Interaction cell and the placement of the student through the Department of Training & Placement. More details about NIT Raipur are at: http://www.nitrr.ac.in.

Features of Course

- A comprehensive overview of the fundamental concepts of Artificial Intelligence and Machine Learning in Geoscience, including hands-on sessions and live demonstrations.
- Each student group will be assigned a project, which will be supervised and monitored by a mentor.

Eligibility for Participation

- UG/PG graduated/pursuing students/
- Ph.D. Scholars from higher education institutions
- Faculties / Staffs / Lab Instructors from technical and academic institutions
- Govt. Employees or Industry/working professionals

For Registration

For More Details Click

https://www.nitrr.ac.in/conference.php

Scan QR for More Details

Course Module

- **Module 1: Python Programming and Data Visualization :** Learn Python basics, including data types, operators, collections, and control flow. Advance to functions, file handling, exception handling, database interaction, GUI programming, and data visualization using Tableau and Power BI.
- **Module 2: Remote Sensing and GIS :** Understand remote sensing and GIS fundamentals. Get introduced to ArcGIS/QGIS, covering interface navigation, data visualization, coordinate systems, working with various data types, spatial analysis, georeferencing, and map production.
- **Module 3: Machine Learning, Geology, and Water Resources :** Cover the basics of machine learning, geology, and water resources. Learn to integrate GIS and Python in geology and water resource management.
- **Module 4: Practical Applications with Python and GIS :** Apply Python and GIS to identify minerals and rocks, predict groundwater levels and flows, assess flood risks, and analyze water quality.
- **Module 5: Real-world Applications and Projects :** Explore real-world applications of machine learning in water resources and geology. Participate in group projects to analyze datasets and present findings.

Important Dates

Registration Last Date:	**: ~~05th August 2024~~**
Extended Last Date of Registration	**: 10th August 2024**
Course Start Date:	**: 17th August 2024**
Course End Date	**: 31th August 2024**
Course Timings	**: 05:30 PM - 07:30 PM**

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Chief Patron

Prof. N.V. Ramana Rao, Director, NITRR

Patron

Dr. Prabhat Diwan, Dean (R&C), NITRR

Chairman CEC

Dr. Subhojit Ghosh, Chairman (CEC), NITRR

Co-ordinators Contacts Details

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Speakers

Subject experts of the course will be from NIT Raipur and also from renowned institutes /Industries.

Account Details

Account No.	**:**	**38027633250**
Bank Name	**:**	**State Bank of India**
Bank Branch	**:**	**NIT Branch**
IFSC Code	**:**	**SBIN0002852**
MICR Code	:	492002004
Swift Code	:	SBININBB646
PAN Card Number	:	AAAJN0643G
GSTIN Number	:	22AAAJN0643G1ZN

Course Fee Details

Category	Fee (Rupees)
Students (UG/PG/ PhD) of NIT Raipur	(₹1200 + 18% GST) = ₹ 1416/-
Outside Students (UG/PG/PhD) (other than NIT Raipur)	(₹1500 + 18% GST) = ₹ 1770/-
Faculty/ Industry Persons/ Govt. Employee	(₹2500 + 18% GST) = ₹ 2950/-

Registration Process

Interested candidates/organizations can apply in the prescribed **application form (google form along with the details of course fee.**

The payment can be done either in the form of a Demand Draft (DD) in favour of **"Director, NIT, Raipur"** payable at Raipur or through **online mode** in the given account details. For online payment, the scanned copy of the application form along with the proof of payment should be sent to **cec_assistant@nitrr.ac.in** by the due date **(10th August 2024).** For payment made through DD, the hard copy of the application along with the DD should be sent to the Chairman, Continuing Education CELL, NIT Raipur, Raipur, Pin:492010 by the due date (05th August 2024). **After payment, participant is required to fill following google form :**

Click Google Form Link: https://forms.gle/46m8fwKNuA2SxDqf9

Or
Scan Google Form