



ACCELERATE
विद्यया



HIGH END WORKSHOP ON

RESERVOIR SIMULATION FOR CO₂ SEQUESTRATION

SPONSORED BY SERB, DST, GOVT. OF INDIA,
UNDER THE ACCELERATE VIGYAN THE KARYASHALA SCHEME
8TH JULY – 14TH JULY 2024
ORGANIZED BY



DEPARTMENT OF PETROLEUM ENGINEERING AND EARTH SCIENCES,
INDIAN INSTITUTE OF PETROLEUM AND ENERGY, VISAKHAPATNAM,



ABOUT THE INSTITUTION

Indian Institute of Petroleum and Energy (IIPE) Visakhapatnam was established by an Act of Parliament under the Ministry of Petroleum and Natural Gas (MoPNG) and declared as an Institute of National Importance. The Institute also aims to produce skilled human resources to meet the quantitative and qualitative gap in the Petroleum & Energy sectors and to boost the research activities needed for the growth of these sectors by nurturing and promoting the quality and excellence in education and research in various areas of petroleum and energy.

ABOUT THE DEPARTMENT

The Department of Petroleum Engineering and Earth Sciences was started in 2016 with the mission to provide skilled and highly qualified engineers in the field of Petroleum Engineering and Earth Sciences. The department currently offers a 4-year B.Tech program in Petroleum Engineering, a 2-year M.Sc. program in Applied Geology, and a PhD program in Petroleum Engineering and Earth Sciences. The department has highly qualified faculty members and is equipped with state-of-the-art facilities for academics and research, including laboratories for reservoir simulation, drilling engineering, reservoir engineering, and production engineering, all fully equipped with the latest machinery and software.





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OUR SPONSOR

**THE WORKSHOP IS SPONSORED BY SERB, DST, GOVT. OF INDIA
UNDER ACCELERATE VIGYAN “KAARYASHALA SCHEME”.**

ABOUT KARYASHALA

Under the Accelerate Vigyan scheme, ‘KARYASHALA’ aims to boost Research & Development in the country by enabling and grooming potential PG and Ph.D. level students by developing dedicated research skills in selected areas/ disciplines/fields through High-End orientation workshops. This will be especially important for researchers with limited opportunities to access such learning capacities/facilities/infrastructure. This program aims to provide a big push to high-end scientific research and prepare scientific manpower that can venture into research careers and a knowledge-based economy.



PROGRAM DETAILS

CCUS (Carbon Capture, Utilization, and Storage) or Geological Sequestration of CO₂ has emerged as a vital tool in achieving the goal of net-zero greenhouse gas (GHG) emissions by 2050 to combat global warming. Among the significant advancements made in the development of CCUS technologies, reservoir simulation plays a crucial role in understanding and predicting the behavior of CO₂ within subsurface geological formations, which is essential for the effective and safe storage of CO₂.

The workshop focuses on a comprehensive understanding of the principles and methodologies involved in reservoir simulation for CCUS and practical applications, aiming to equip participants with hands-on experience and insights into using reservoir simulation for CCUS projects. Participants will learn how to model and analyze CO₂ storage in subsurface formations under the expert guidance. The workshop will also provide a platform for academia and industry professionals to share their knowledge and experiences, fostering valuable networking opportunities.

KEY TOPICS TO BE COVERED IN THE 7-DAY WORKSHOP INCLUDES:

- Overview of CO₂ sequestration, storage options, transportation, and technologies and their importance in mitigating greenhouse gas emissions.
- Introduction to CO₂ Sequestration and Fundamentals of Reservoir Simulation
- Overview of reservoir simulation software and its applications for CO₂ sequestration.
- Hands-on training with commercial reservoir simulation software for CO₂ Sequestration
- Environmental impacts, Risk Management, and Monitoring of CO₂ storage
- Uncertainty Analysis in CO₂ sequestration projects and Sensitivity Studies
- Case Studies and Best Practices
- Interactive exercises and group discussions on simulation optimization.

SPEAKERS

The workshop will feature speakers from top institutions in academia and industry, who have extensive knowledge in CO₂ and its simulation.



WHO CAN ATTEND

Applicants pursuing a Final year in UG/PG/Ph.D programs in any specialization of Petroleum Engineering, Chemical Engineering, Energy, Earth Sciences, and related departments from Institutes, Colleges, and Universities in India are eligible.

TRAVEL, ACCOMMODATION AND FOOD

Selected participants will be offered **travel support** (Train 3rd AC/Sleeper class/Bus fare as per GOI rules) to attend the workshop. (Ticket/Fare copy submission is must). **Free accommodation and food** will be provided to all the selected participants for the entire workshop duration.

IMPORTANT INFORMATION

- The workshop has 25 limited seats, and the students will be selected based on a profile and on a first-come, first-selection basis.
- There is **NO REGISTRATION FEES** for the participants.
- The shortlisted candidates will get a selection notice by E-mail and are required to produce NOC from their supervisor/Head of the department/Head of the institute, as per the given format, within 5 days of selection notice.
- An assessment will be conducted at the end of the workshop, and certificates will be issued to all participants who attended all the sessions and scored 60% on the test.

IMPORTANT DATES

Registration Opens: 28th May 2024

Last date for Registration: 7th June 2024

Notification of Selection: 12th June 2024

How to Apply.

Interested students and scholars can register via QR code.



Places to Visit in Visakhapatnam

Visakhapatnam, “A gem of South India”, also commonly known as Vizag, is one of the oldest port cities in the country. Situated in the heart of Andhra Pradesh, Visakhapatnam is known for its picturesque beaches and serene landscape, as well as a rich cultural past, which makes it an ideal spot for a fantastic coastal vacation. It is known as “City of Destiny”.

**Bheemli Beach | Rishikonda Beach | Yarada Beach | RK Beach |
Kailashgiri | Dolphin Nose Hill | Seemachalam Temple | Lumini
Garden | Aruku Valley | Sea Harrier Museum | Indira Gandhi
Zoological Park | Submarine Museum |**



Patron

Prof. Shalivahan, Director IPE, Visakhapatnam

ORGANIZING COMMITTEE

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