PMRF-ISSS Teaching Programme

Prime Minister Research Fellowship students' teaching requirement

facilitated by the Institute of Smart Structures and Systems

Module PMRF-ISSS016/2022

A practical approach to seismic method using python and Machine learning tools

Name of the PMRF student

Anjali Dixit

Required background of the students taught

Earth sciences, Earth Ocean and Atmospheric sciences, Geology, Geophysics, and Petroleum engineering

Online session coordinator

Will be chosen from the list of registrants

Fig.: Detection of gas plume channels using ML approach for enhanced seismic interpretation.

Schedule of the module

Course start data: 08- 06- 2022

Course end data: 10-08-2022

Total duration of course: 10 weeks

Lecture duration: 1hr./week (every Wednesday)

Timings: 6:00 PM – 7:00 PM IST

Details of the content of the module

Week-wise course syllabus

Week 1: Introduction of seismic method and its importance

Week 2: Basics of seismic method

Week 3: Basics of various well logs (in context to seismic interpretation and inversion)

Week 4: Application of python and machine learning tools in seismic method

Week 5: Introduction of useful python libraries

Week 6: Installation of python, IDE and various libraries

Week 7: Introduction to seismic inversion and various techniques

Week 8: Seismic data loading and its visualization

Week 9: Well log data loading and its visualization

Week 10: Seismic inversion using python libraries
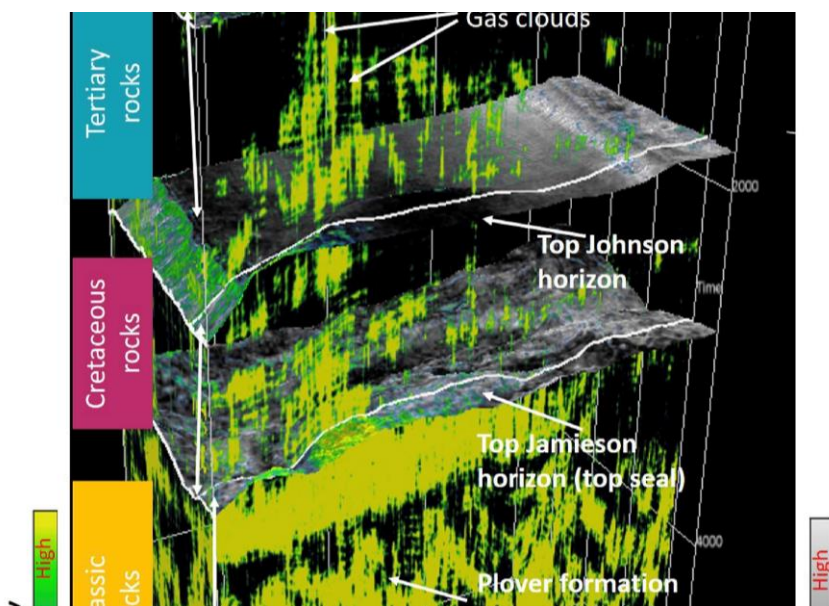
Nature of teaching – Lectures

Meeting link : Will be shared later

Link

Contact email ID: isss.forum@gmail.com

 Registration link:
https://docs.google.com/forms/d/e/1FAIpQLSc
VHJkGTY9dpkS8ZC_KflMX89GL15zq0lnX-
IJPWToyGW78PA/viewform?usp=pp_url