

Brochure

Topic:

Online Course on “Remote Sensing and Geographic Information System” (Organized by Department of Mining Engineering, NIT Rourkela)

Abstract:

Remote Sensing is the acquisition of information of an object without being in physical contact with it. The data generated through remote sensing techniques are integrated with geographical information using GIS that produces the real-world datasets. This course would describe some of these techniques used and application of these datasets for visualization, numerical modelling and analysis using statistics based, machine learning, and deep learning techniques.

Date:

Every Wednesday, Commencing from 15th September 2021 and expected to end on 24th November 2021(10 classes with 2 hrs duration)

Timing:

11 am to 1pm weekly (On Wednesday).

Venue:

Online on MS Teams: Team code: **qf97tn4**

Online on MS Teams: DAY 1 Joining Link is below.

<https://teams.microsoft.com/l/meetup-join/19%3afe40a96c65624c04839bd40731eab55e%40thread.tacv2/1631517900451?context=%7b%22Tid%22%3a%22bad12864-913e-4b99-87d6-b8d2ad459e27%22%2c%22Oid%22%3a%22aad3738f-5442-4960-aae7-3a0768fe9dc8%22%7d>

Coordinator:

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Presenter:

Mr. Maitreya Mohan Sahoo, Centre of Studies in Resources Engineering
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Course Details:**REMOTE SENSING AND GEOGRAPHIC INFORMATION SYSTEM**

1. Remote Sensing- Introduction, History, and Development and Applications
2. Sensors and Resolutions
3. Electromagnetic Radiation- nature and sources, interaction with matter and atmosphere
4. Atmospheric windows, its effects and corrections
5. Multispectral and Hyperspectral systems
6. Thermal Remote Sensing
7. Geographic Information Systems
8. Digital Photogrammetry and Cartography
9. Mathematical techniques in Remote Sensing and GIS datasets

Software to be used:

1. Python- for programming-based image processing
2. QGIS

** Certificate will be awarded to those participants who will pass the exam (which will be taken at the end of the course) and will have regular attendance.