



INDIAN INSTITUTE OF TECHNOLOGY INDORE

Department of Astronomy, Astrophysics and Space Engineering

Organizes

Short term course under AICTE-QIP Scheme

Remote Sensing for Space and Atmosphere

April 25-30, 2022

Sponsored by Quality Improvement Programme (QIP), AICTE



ABOUT IIT INDORE

Indian Institute of Technology Indore, located in Madhya Pradesh, known as IIT Indore, is an institute of national importance established by the Government of India in 2009. The Department of Astronomy, Astrophysics and Space Engineering (DAASE) was established in December 2015 as an interdisciplinary division at IIT Indore, focusing on a wide range of research topics in the domain of Astronomy, Astrophysics and Space studies. Recently, IIT Indore debuted with a rank of 201-250 in the Times Higher Education World University Rankings, 2022. The department is unique among all IITs, as it offers a dedicated and focused platform to pursue research in Astronomy, Astrophysics and Space Engineering. For more details please visit: <https://aase.iiti.ac.in>

COURSE OBJECTIVES

This course is very relevant for the Indian Space program and provides a unique opportunity for academic researchers and faculty of technical colleges to explore about the recent developments in this field. Course will be beneficial to faculty and researchers, who are aspiring to pursue their career in the field of Remote Sensing technology and its application. The course will provide basic concept of remote sensing technologies, introduce the various applications using these techniques. The course will provide insights on use of Machine Learning techniques in remote sensing domain. The course will involve theory and tutorial sessions with special emphasis on introducing participants to data processing tools such as Google Earth Engine, Sentinel Applications Platform (SNAP) and QGIS. The participants will be able to apply the concepts using real-world satellite imagery.

REGISTRATION FEE

- **AICTE Colleges:** There is no fee for faculty/PG/PhD/scientist participants from AICTE sponsored colleges/institutes.
- A certificate of AICTE recognition of the Institute from the Head of the Department (the format is provided in page 2) must be uploaded at the time to online application through the below link on or before April 22, 2022.
- **Non-AICTE Colleges:** Rs. 2000 for faculty members/scientists/ PhD/ Post-Doc and Rs. 4000 for participants from industries.
- Link for Registration form: <https://forms.gle/YrDTurZd5YKrUo786>

MODE OF PAYMENT

Via NEFT:

Registration fee can be paid through NEFT. Transfer of the amount can be done to the A/c number given below:

Name of the Beneficiary: Registrar, IIT Indore

Name of Bank: Canara Bank

Branch: IIT Indore, Simrol Campus Branch

Beneficiary Account No.: 1476101027440

Bank IFS Code: CNRB0006223

Via Paytm: Link for the payment through Paytm portal is available on IIT Indore website: <http://www.iiti.ac.in/>

- ❖ IIT Indore website → E payments → Paytm Portal for new students/Others → Click on [LINK](#)
- ❖ Select → Registration for events → Workshops/Conference → Other Details → Proceed

COURSE STRUCTURE

This is an active learning course covering following topics

- Module-1: Remote Sensing Basics and Applications
- Module-2: Passive Remote Sensing, ML in remote sensing
- Module-3: Active Remote Sensing – Synthetic Aperture Radar
- Module-4: Data analysis, GIS and Google Earth Engine
- Module-5: Multispectral and Hyperspectral remote sensing
- Module-6: Remote Sensing of atmosphere and space weather
- Module-7: Drone and GPS/GNSS in remote sensing

TENTATIVE INVITED SPEAKERS

1. Prof. Abhirup Datta, IIT Indore
2. Prof. Avik Bhattacharya, IIT Bombay
3. Prof. Barun Raychaudhuri, Presidency University Kolkata
4. Dr. Bipasha Paul Shukla, SAC/ISRO
5. Dr. Biplab Banerjee, IIT Bombay
6. Dr. Karthik Lanka, IIT Bombay
7. Dr. Manoj Semwal, CSIR-CIMAP
8. Dr. P.K. Gupta, SAC/ISRO
9. Dr. Parag Wate, University of Sheffield, UK
10. Dr. Saurabh Das, IIT Indore
11. Dr. Shashi Kumar, IIRS, ISRO
12. Dr. S. S. Kundu, NESAC/ISRO
13. Dr. Unmesh Khati, IIT Indore
14. Dr. Vineet Kumar, TU Delft, The Netherlands
15. Mr. Vikrant Nikam, Albedo Foundation

REGISTRATION PROCESS

- **Online:** Participants can register online using the Google Form. Sending any hardcopy is **NOT** required
<https://forms.gle/YrDTurZd5YKrUo786>
- **Offline:** Participants can fill the form on Page 2 below and send a scan copy along with proof of payment to unmesh.khati@iiti.ac.in with title "QIP registration <Last Name> <First Name>"

TARGET PARTICIPANTS

This course is tailor made for the faculty members, students, researchers, from many allied departments like Civil Engineering, Geography, Physics, Geo-Informatics, Atmospheric studies, Forestry and other inter-disciplinary researchers.

Registration deadline: 22 April 2022

MODE OF THE PROGRAM:

Completely Online Mode

CERTIFICATE

Participants who successfully complete the course will be awarded with a certificate.

COURSE COORDINATOR

Dr. Saurabh Das Email: saurabh.das@iiti.ac.in

COURSE Co-COORDINATOR

Dr. Unmesh Khati Email: unmesh.khati@iiti.ac.in

For more details please visit:

https://www.iiti.ac.in/people/~saurabh.das/QIP_RSSA.htm



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1.	Name:	
2.	Designation:	
3.	Email:	
4.	Mobile No.	
5.	Name of the Organization/Institute	
6.	Name of the Department/centre/school:	
5.	Is your institute AICTE approved Institute (Yes/No)	
6.	Category (Gen/OBC/SC/ST/Others)	
7.	Organization/Institutes identity card no. (Please attach a copy)	
8.	Certificate of AICTE recognition of the institute (See the format Page 3)	
9.	Payment details for participants of non AICTE colleges/institutes/industry	
	Amount	
	Payment Ref. No.	
	Transaction date	
	Bank etc Details	
Place:		Date:
Signature of Participant:		



INDIAN INSTITUTE OF TECHNOLOGY INDORE

Department of Biosciences and Biomedical Engineering

Organizes

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Certificate of AICTE Recognition

Certified that (Name of College/Institute)

.....

..... as well as the Academic Department to which

Mr./Ms./Dr./Prof..... Designation.....

Department..... belongs are recognized by

the AICTE.

Signature

Head of the Department

OFFICE SEAL