

Earth Observation for Climate Action

Post Symposium Tutorial- MOOC

15 September – 14 October 2023

- ❖ *The course will have 14 lectures on different aspects of “EO for Climate Action” and 07 demonstrations on tools techniques and web portals.*
- ❖ *The participants will be able to attend the lectures through the Learning Management System of Indian Institute of Remote Sensing, ISRO and on completion of the lectures as provided in the sequence, will be eligible for an online quiz/examination.*
- ❖ *On successfully passing the online quiz, the participants will be eligible for certificate which will be sent to their emails through which they will register.*
- ❖ *The programme is open to all. However only those who successfully complete the course and pass the examination will be eligible for the certificate.*

Date and time: In UTC and CEST: (Open) The videos will be released one every day at 04:00 UTC/06:00 CEST
Language: English
Prerequisites: Graduate Students
Target audience: Researchers, Academia, Students and Professionals
Registration: Online registration for the course has been opened from 5th September 2023.
The link to the registration is: <https://isat.iirs.gov.in/mooc.php>

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Lecture Topics

- Climate change: concepts and issues: **Dr. Ramanna M.V.**
- Overview on IPCC-AR6: **Dr. Arijit Roy**
- EO systems for climate change studies: **Dr. Rajashree Bothale**
- Climate change and disasters using EO: **Dr. Durga Rao**
- Application of EO data in climate models: **Dr. Prashant Kumar**
- Remote Sensing of greenhouse gasses: **Dr. R.P. Singh**
- EO for estimation of carbon emission: **Dr. R. Nayak**
- Geospatial technology for food security: **Dr. Rabindra Kumar Nayak**
- Impact of climate change on Oceans: **Dr. Suchandra A Bhowmick**
- Climate change impact on Cryosphere: **Dr. Sushil Singh**
- Role of EO for water security in changing climatic regime: **Dr. P.V. Raju**
- Adaptation, mitigation and climate risk: **Dr. S.P Agarwal**
- EO and climate action for Sustainable Development Goals: **Dr. Shirish Ravan**

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Practical/Demonstration

- Bhuvan Geo-portal: **Dr. S. Shadab**
- Bhoonidhi ISRO's Web portal for data dissemination: **Dr. Anupama**
- MOSDAC: ISRO's web portal for meteorological data: **Ms. Ruchi Modi**
- VEDAS: Visualisation of Earth Observation Data and Archival System: **Ms. Shweta Mishra**
- National Information System for Climate Sciences: NICES: **C. Jayshree**
- Demonstration on using Google Earth Engine **Dr. Kamal Pandey**
- Estimation of temporal temperature and precipitation data using GEE: **Ms. Madhusmita Murmu**
- Temporal burnt area assessment using GEE: **Ms Shailja Mamgain**
- Species niche modelling for climate change **Mr. H.C. Prince and Ms. Shanti**

ALL THE LECTURES WILL BE ACCOMPANIED WITH STUDY MATERIALS IN FORM OF PDF FILES OF THE SLIDES

Date / Lecture				
<p>15-09-2023 L1: Climate Change: Concepts and Issues - RMV</p>	<p>22-09-2023 P1: Bhoonidhi web portal- AN</p>	<p>29-09-2023 P3: National Information system for Climate and Environment Studies (NICES) climate data web portal- CJ</p>	<p>06-10-2023 L10: Climate change impact on Cryosphere - SuS</p>	<p>13-10-2023 P7: Species niche modelling for climate change - AR</p>
<p>18-09-2023 L3: Overview on IPCC- AR6 - AR</p>	<p>25-09-2023 L5: Climate change and disasters using EO – DR</p>	<p>02-10-2023 L8: Geospatial technology for food security - RNG</p>	<p>09-10-2023 P5: Estimation of temporal temperature and precipitation data using GEE - AR</p>	<p>14-10-2023 L13: EO and climate action for Sustainable Development Goals - SR</p>
<p>19-09-2023 P1: Bhuvan web portal- SS</p>	<p>26-09-2023 L6: Application of EO data in climate models - PK</p>	<p>03-10-2023 P4: Visualisation of Earth Observation Data and Archival System (VEDAS) web-portal – SM</p>	<p>10-10-2023 L11: Role of EO for water security in changing climatic regime - PVR</p>	
<p>20-09-2023 L3: EO systems for climate change studies - RB</p>	<p>27-09-2023 P2: Meteorological & Oceanographic Satellite Data Archival Centre (MOSDAC) web portal - RM</p>	<p>04-10-2023 L9: Impact of climate change on Oceans - SAB</p>	<p>11-10-2023 P6: Temporal burnt area assessment using GEE - AR</p>	
<p>21-09-2023 L4: Remote Sensing of greenhouse gasses- RPS</p>	<p>28-09-2023 L7: EO for estimation of carbon emission - RN</p>	<p>05-10-2023 P4: Demonstration on using Google Earth Engine (GEE) - KP</p>	<p>12-10-2023 L12: Adaptation, mitigation and climate risk - SPA</p>	