

KEY QUESTIONS

1. How can we better understand feedbacks between climate change and biodiversity?
2. How do we maintain a balance between bioresource management and socio-economic development?
3. Is spatial biodiversity special? - Geomatics perspective!
4. How do cryospheric changes in polar regions and high mountains affect biodiversity, water cycle and global climate?
5. How can we better predict and manage the natural hazards and extreme weather events?
6. How can we better understand the intricacies between terrestrial and marine bio-geochemical cycles?
7. What are the ways forward to achieve the net-zero targets through nature-based solutions?

THEMES/TECHNICAL SESSIONS

- I. Biodiversity and Land Cover Dynamics
- II. Geomatics and Data Analytics
- III. Forest and Agricultural Resources & Biotechnology
- IV. Extreme Weather Events and Natural Hazards
- V. Global Cryosphere and The Himalayas
- VI. Biogeochemistry - Terrestrial and Marine
- VII. Nature-based Solutions and Net-Zero Targets

MEMORIES OF BDCC-2010



BDCC-2023

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INTRODUCTION

Healthy ecosystems constitute healthy planet. In this connection, ecosystem restoration is a win-win strategy that is crucial to attain Sustainable Development Goals (SDGs) and climate targets of the Paris Agreement. The on-going climate change is unequivocally anthropogenic and together with other stressors like deforestation, land degradation, biological invasion, etc. has resulted in species losses and shifts in landscape dynamics. The carbon cycle and the water cycle, arguably the two most important large-scale processes for life on Earth, depend on biodiversity at genetic, species, and ecosystem levels and can yield feedbacks to climate change.

Geomatics and data analytics have revolutionized our understanding on the impacts of climate change and ecosystem responses. The effects of climate change are particularly felt in fragile ecosystems like that of the Himalayas which harbor rich biodiversity and support several dependent communities. Climate extremes and natural hazards are becoming more prevalent especially in vulnerable ecosystems. By joining hands with experts from various science arenas such as ecology, oceans, cryosphere and atmosphere, it would be easier to build climate change-resilient ecosystems as a way of nature-based solutions to realize SDGs and net-zero targets.

MEMORIES OF BDCC-2018



BDCC-2023

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Welcome to IIT Kharagpur



Commemorating the UN Decade on Ecosystem Restoration

3rd International Workshop on



BIODIVERSITY AND CLIMATE CHANGE -

Sustainable Development Perspective



3rd BDCC 2023
(16-19 February 2023)



Centre for Ocean, River, Atmosphere and Land Sciences
(CORAL)

Indian Institute of Technology Kharagpur

BDCC-2023

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Organizing Secretary

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Location: Situated about 120 km west of Kolkata, Kharagpur can be reached in about 2 hours by train from Howrah railway station or 3 hours from Kolkata Airport. The Institute is a 10-minute drive (5 km) from Kharagpur railway station. Private taxi, auto or rickshaw can be hired to reach the Institute.
Weather: Winter (October to February) is moderate and pleasant (10 to 25°C) . Summer (March to June) is hot (25 to 40°C) and sometimes humid. Rains occur normally between June and September.

For more information: <http://www.iitkgp.ac.in/>

TENTATIVE SCHEDULE

16.02.2023

1400 hrs Registration
 1430-1630 hrs Tutorial – I/II
 (Species Distribution Modelling using Machine Learning/
 Soft Techniques in Environmental Geochemistry and Sediment Analysis)
 1630-1830 hrs Tutorial-III/IV [**Tea Break**]
 (Geomatics and Data Analytics using Open Source - GEE/
 Soft Computing in Glacial Ice sheet modelling)
 1900-2200 hrs Interactions & Kick-off Dinner

17.02.2023

0800-1000 hrs **Breakfast** (0730-0930 hrs) / Award Contest-ORAL
 1000-1130 hrs Inauguration
 1130-1200 hrs **Tea Break**
 1200-1330 hrs Plenary/Invited Talks
 1330-1430 hrs **Lunch Break** / Award Contest- POSTER
 1430-1600 hrs Campus visit/ **Tea Break** (1600-1630 hrs)
 1630-1830 hrs Technical Session-I/IV
 1900-2030 hrs Cultural Program
 2030-2200 hrs **Dinner**

18.02.2023

0830-1030 hrs **Breakfast** / Technical Session-II/ V
 1100-1130 hrs **Tea Break**
 1130-1330 hrs Technical Session-III/ VI
 1330-1430 hrs **Lunch Break** (Award Announcement)
 1430-1630 hrs Networking/Project Proposals/Journal SIs Meeting
 1600-1630 hrs **Tea Break**
 1630-1800 hrs Technical Session-VII/ Invited Talks
 1800-2000 hrs Valedictory and Feedback
 2030-2200 hrs **Dinner**

19.02.2023

0630 Onwards –Field visit (Sundarbans/Similipal BR) - To be Confirmed

Best Oral & Poster Award Contest: Prizes will be awarded in each category.
Registration (including food, excluding Accommodation)

| | Before 31/12/2022 | After 31/12/2022 |
|---|--|------------------|
| For Scientists/officials from academia/others: | Rs. 6000/- | Rs. 7000/- |
| For Students: | Rs. 4500/- | Rs. 5000/- |
| (*approval certificate required) | | |
| Accommodation*: (in IIT Guest House/ TGH, Limited) | | |
| Double Room with double occupancy : | Rs. 1500/- + 12% GST per day (approx.) | |
| Single Room with single occupancy : | Rs. 1000/- + 12% GST per day (approx.) | |
| Hostel Accommodation for Students : | Rs. 700/- per day (approx.) | |

Important Dates

Abstract Submission Deadline Upto 10th January, 2023
 (Up to 500 words in MS Word/PDF format)
Abstract Acceptance Intimation Upto 15th January, 2023
Publication in Peer-reviewed International Journals: Selected papers shall be published in Peer-reviewed International Journals.
Application Procedure: Fill in your details and submit your Abstract Title, keywords, affiliations at 12 Times New Roman Font through <https://forms.gle/hacPix4fDEw6qQz6A> or via email to bdccit2023@gmail.com. *Students need (i) to send/carry a certificate from their University/Institute or copy of Valid ID card and (ii) to specifically mention if their paper to be considered for ORAL/POSTER Award contest (iii) May apply for one tutorial each day.
***Registration Fee:** DD in favor of 'CEP-STC, IIT Kharagpur' (or) Electronic transfer to Name: CEP-STC, Savings A/C No: 95562200002955, IFSC: CNRB0019556 & inform with detail proof to bdccit2023@gmail.com.
 For more information, visit <https://sites.google.com/view/bdcciitkgp2023/home>

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<http://www.iitkgp.ac.in/department/CL>



Centre for Ocean, River, Atmosphere and Land Sciences (CORAL) at IIT Kharagpur was established on 16th March, 2005. The important mission of the Centre is to identify & address the challenges of the Earth Systems Science & Technology.

Vision

To impart quality education in Earth System Science & Technology to meet the national requirement

Advance research and technology development on multi-disciplinary aspects of Environmental & Climate Sciences and Land-Ocean related issues

Special Issues in Elsevier/ Springer Journals Proposed

1. Journal of Environmental Management
2. Biodiversity and Conservation
3. Remote Sensing Applications: Society and Environment
4. Marine Pollution Bulletin
5. Applied Geography
6. Environmental Monitoring and Assessment
7. Tropical Ecology

In Association with

1. Indian Society of Geomatics, Kharagpur Chapter
2. International Society of Tropical Ecology, Varanasi
3. CSIR-National Botanical Research Institute, Lucknow
4. IESD, Banaras Hindu University, Varanasi
5. GB Pant National Institute of Himalayan Environ., Almora
6. Dr. Harisingh Gour Vishwavidyalaya (A Central Univ.), Sagar
7. Central University of Odisha, Koraput
8. National Institute of Ecology, New Delhi

Session In-Charge

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 MK Dash, IIT Kharagpur
 AK Rai, IIT Kharagpur
 N Pal, IIT Kharagpur
 J Kuttippurath, IIT Kharagpur
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