

**SPECIAL ISSUE**  
**for**  
**International Conference**  
**on**  
**Mountain Ecosystems: Biodiversity and Adaptations Under Climate**  
**Change Scenario (MBCC-2023)**  
**(22-24 March 2023)**

**Jointly organized by**  
**Graphic Era Deemed to be University, Dehradun 248002, Uttarakhand,**  
**INDIA**  
**&**  
**International Centre for Integrated Mountain Development, Kathmandu,**  
**NEPAL**

**Submission is available only for registered participants of MBCC-2023**

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## EDITORS (SPECIAL ISSUE)



**Dr. Narpinder Singh**

Professor and Vice Chancellor

Graphic Era Deemed to be University, 566/6, Bell Road, Clement Town,  
Dehradun, Uttarakhand, PIN 248002, India.

**Interests:** Food Science and Technology



**Dr. Nishant Rai**

Professor, Department of Biotechnology

Graphic Era Deemed to be University, 566/6, Bell Road, Clement Town,  
Dehradun, Uttarakhand, PIN 248002, India.

**Interests:** Microbiology, Bioactive phytochemicals, Herbal drug development,  
Vaccine Development, Molecular Diagnostics



**Dr. Manu Pant**

Associate Professor, Department of Biotechnology

Graphic Era Deemed to be University, 566/6, Bell Road, Clement Town,  
Dehradun, Uttarakhand, PIN 248002, India.

**Interests:** Plant Biotechnology, Plant Tissue culture

## About the Conference/Thematic areas

Mountains occur in all the continents, in all the latitude zones, and within all the world's principal biome types. Mountain ecosystems have ecological, aesthetic, and socioeconomic significance, not only for people living in the mountains, but also for those living beyond—especially those in the lowlands who benefit from the ecosystem services mountains provide. Mountains represent unique areas for detecting climate change and assessing climate change impacts. There is an increasing awareness on climate change impacts the mountains, mountain ecosystems, species and mountain people. The extreme colder environments of mountains possess several climatic factors that generate stress for life, such as, low temperature, high exposure to radiation, low nutrient and water availability, desiccation, etc. These biotic and abiotic factors influence both structural and functional characteristics in the biological communities (animals, plants, and microbes). The mountain ecosystems and the mountain communities have received attention during international debates such as the United Nations Conference on Environment and Development in Rio de Janeiro in 1992, the Sendai Framework for Disaster Risk Reduction 2015, the Paris Agreement 2015 of the United Nations Framework Convention on Climate Change, and the Sustainable Development Goals (SDGs) and Targets 2030. Importance of resilience and adaptations acquired by the mountain biodiversity to cope up in harsh climatic conditions has been realized in these forums. In this International Conference, the efforts will be on bringing together the distinguished groups of researchers who have been working on various aspects of mountain biodiversity across disciplinary and geographical boundaries. The conference will focus on the presentations on biodiversity (animals, plants, microbes) with particular reference to their cope up mechanisms in low temperature environment of mountain ecosystems in general and Himalaya and Antarctica in particular. Himalaya includes the highest and the youngest mountains with more than 110 peaks rising to elevations of 24,00 feet asl. The Himalayan region, often referred as the “Water Towers of Asia”, assumes sacred with special significance being young and dynamic on one hand, and the most complex and diverse on the other, ranging from the wettest to driest areas. The region has been recognized amongst the 36 global biodiversity hotspots. The region has a discrete geographic and ecological entity that produces a distinctive climate of its own and influences the climate of much of Asia. Antarctica represents the coldest part of the Earth, rendering it a unique system and highly attractive for research projects focusing on biodiversity, life strategies, and adaptation mechanisms. Antarctica, based on the climatic conditions, has been classified into three biogeographic zones- sub, maritime, and continental Antarctica. Threats to Antarctic ecosystems and biodiversity are facing threats mainly due to the climate change, biological invasions, pollution and the anthropological activities.

### Thematic areas

- Biodiversity (animals, plants, and microbes) with particular reference to mountain ecosystems
- Adaptations (morphological, biochemical, and genetic)
- Socio-ecological adaptations
- Ecosystem services in climate change perspective
- Ecosystem restoration and nature based solutions

**Keywords:** Biodiversity, Ecosystem, climate change, Natural Restoration.