

## Editorial

Climate change is to be dealt with by all human beings and it has become a part of our daily lives. It globally impacts weather, business and food/water security. Worldwide investors are demanding sufficient funds allocation for climate resilient companies. The palaeoclimate studies help us to understand the past ecosystem's response for the range of climate and environmental changes and give us an overview of the resilience and guide policy makers to call for climate change adaption. This issue addresses also the steady increase of urban area warming trends in creating heat island areas due to decrease in land cover and increase in population density. The application of modern technology to address the air quality (indoor and outdoor) deterioration under rapid changing microclimate has become a priority to all nations to help governments to control human respiratory disease. Increasing universal use of sustainable energy resource in recent years helps to nullify the impact of rising CO<sub>2</sub> emission and temperature. The recent pandemic has also given us an opportunity to learn to fight against climate change.

The papers in this issue address these important day to day aspects in detail thereby making the reader more informed and aware.

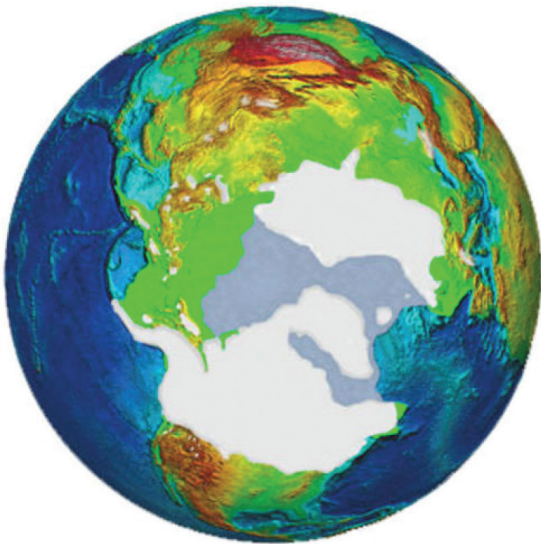
Happy reading.

February 28, 2023

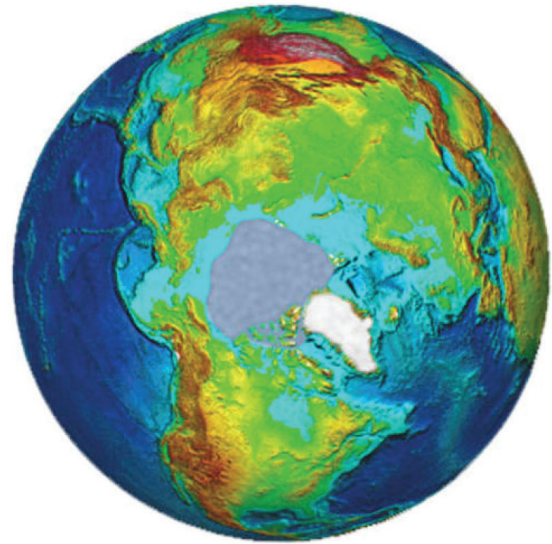


(AL. Ramanathan)  
Editor-in-Chief

18,000 Years Ago



Modern Day



□ Glacial Ice    ■ Sea Ice

Northern Hemisphere ice coverage.

(Photo courtesy: NOAA National Centers for Environmental Information)

# Contents

<i>Editorial</i>	i
□ <i>Snapshot</i>	ii
Impact of Climate Change-Induced Rainfall on the Agriculture Pattern of Goa – A Geographical Perspective <i>Prakash R. Morakar, C.P. Hiremath and D.M. Jakati</i>	1
Maximising Net Zero in Energy-Intensive Industries: An Overview of AI Applications for Greenhouse Gas Reduction <i>Atul Saggarr and Bhawna Nigam</i>	13
Palaeoenvironmental Reconstruction Through Granulometric Analysis of a Palaeolake Deposit at Bhikiyasain, Kumaun Lesser Himalaya <i>B.S. Kotlia, Manmohan Kukreti, Harish Bisht, A.K. Singh, Anupam Sharma, G.C. Kothiyari, David F. Porinchu, Pooja Chand, Rajkumar Kashyap and G.K. Sharma</i>	25
Relevance of Urban Geometry and Outdoor Thermal Comfort in Urban Heat Island Mitigation – A Review <i>Manisha D. Malcoti, Hina Zia and Chitrarekha Kabre</i>	39
Monitoring the Air Quality and Microclimate in a Semi-urban Area Using a Smartphone <i>Madhumita Ghosh Datta</i>	53
Investigation on Modelling and Control of Induction Machine <i>Hena Varma, Sandeep Banerjee, Kusum Tharani, Sourav Rawat, Vansh Panwar and Piyush Pant</i>	61
Impact of COVID-19 on the World Economy <i>Shaheen Manna, Sayantika Mukherjee, Dipanwita Das and Amrita Saha</i>	67