



ISTE-WPLP LEARNING MATERIAL SERIES

Green Technology (Climate and Innovation)

Author: Anil Kumar

ISBN 13: 978-93-55383-91-4

ISBN 10: 93-55383-91-6

E-ISBN 13: 978-93-55383-91-4

Edition: 1

Pages: 648

Type of book : Paperback

Year: 2025

Language : English

Publisher: Khanna Publishing House

M.R.P: Rs 898.00

Categories : Environmental Engineering,

ISTE Series

Condition Type: New

Country Origin: India



Product Description

Green Technology: Climate and Innovation offers a powerful narrative on talking global climate change through innovative and sustainable solutions. Blending scientific insights, global policies, and India's pioneering efforts, the book is an essential guide for policymakers, academicians, and anyone passionate about the environment. The book starts with the basics, explaining how Earth's atmosphere, weather, and climate are interconnected and how human activities disrupt this delicate balance, causing global warming. It explores the impacts of this warming, extreme weather, rising sea levels, and ecological imbalance, while emphasizing the urgent need for mitigation and adaptation strategies. Complex concepts such as radiating forcing, representative concentration Pathway (RCPs), and shared socioeconomic Pathways (SSPs) are presented in an accessible way, helping readers understand future climate scenarios. The book also highlights international collaborations and key climate agreements, from the Kyoto protocol to the Paris Agreement, including critical takeaways from COP26. India's leadership in addressing climate change is a central theme, showcasing its renewable energy drive, energy efficiency initiatives, sustainable urban planning, and afforestation projects. The book further delves into clean technologies transforming sectors like energy, water, agriculture, and transportation. Tying sustainable to India's vision of Atmanirbhar Bharat, it underscores how integrating green technologies can drive nation progress. The concluding chapter calls for collective global action to ensure a resilient future for the planet. Green Technologies: Climate and Innovation is more than a book - it's a call to action offering knowledge, insights, and inspiration to build a sustainable world.



Table of contents

Foreword Preface About the author

- 1. Atmosphere, Weather and Climate
- 2. Earth's Energy Budget
- 3. Global Warming and Future Trends
- 4. Responding to Climate Change
- 5. Radiative Forcing, RCP, SSP
- 6. Global Studies on Climate Change
- 7. Global Climate Actions, Agreements and Protocols
- 8. UN Climate Change Conference- GLASGOW and BEYOND
- 9. India's Action on Climate Change
- 10. Clean Technologies
- 11. Environmental Sustainability for Atmanirbhar Bharat
- 12. Earth and Climate for Future Generation: A Call for Action
- 13. Mitigation and Vikasit Bharat 2047



Author

Prof. Anil Kumar is a distinguished figure in the fields of environmental science, disaster management, and climate change, with an illustrious career spanning academia, government, and industry. With a Doctorate in Environmental Science and an M.E. in Hydrology from IIT Roorkee, he has also earned an M.Sc. in Disaster Mitigation, a Master's in Ecology & Environmental, and a Gold Medal in Civil Engineering during his undergraduate studies. Currently serving as a professor of practice at the National Institute of Technical Teachers' Training and Research (NITTTR) Kolkata- a-Deemed-to-be University under the ministry of Education, Government of India- Prof. Kumar held several prestigious positions. These include Senior Advisor (Environment & Climate Change) at the Bihar State Disaster Management Authority, Director at Adamas University, and State Project Administrator of the World Bank's TEQIP-III initiative for Uttar Pradesh Under the Ministry of Human Resource Development (MHRD). He has also made impactful contributions as a Deputy Director General and Director general (I/C) at the institution of Engineers (India), Deputy Director at the All India Council for Technical Education (AICTE), and Superintending Engineer at the Damodar Valley Corporation. His association with UNESCO's Hydrology Program at IIT Roorkee and governance roles in bodies like the Indian Society for Technical Education (ISTE) and the Solar Energy Society of India reflect his dedication to advancing technical education and environmental sustainability. In recognition of his exceptional contributions to the national technical education system, Prof. Kumar was conferred the ISTE Fellowship in 2024. As an accomplished author, he has penned influential works, including Disaster Management, Water Security and Ecosystem Balance, and Environmental Studies and Disaster Management. His extensive knowledge and expertise firmly establish him as a leading authority in climate change and Disaster risk resilience, inspiring the next generation of professionals in these critical domains.

