

Preface to the December 2022 Issue of GeoChronicle Panorama

I am delighted to present the December 2022 issue of *GeoChronicle Panorama*, which showcases a diverse array of research papers that reflect the breadth and depth of current geoscientific investigations. The six papers in this issue highlight various aspects of geology, from geoheritage and geotourism to metallogeny and sustainable development. Each study contributes valuable insights into its respective field, offering both scientific knowledge and practical implications.

The issue opens with Girija Prasad Mohapatra's exploration of '*Geoheritage and Geotourism in Odisha*'. This paper underscores the geological wealth of Odisha, emphasizing the need for preserving significant geoheritage sites such as the Nomira pillow lava and the Simlipal Complex. Mohapatra calls for an integrated approach to conservation that includes community awareness and legal frameworks to protect these natural wonders from the pressures of urbanization and industrialization. Rabindranath Sar looks into the '*Metallogeny of Iron with Special Reference to Odisha*'. Sar examines the geological evolution and distribution of banded iron formations (BIFs) in the region, particularly focusing on the Bonai-Keonjhar Belt, Gandhamardan Hill, and other notable occurrences. His work provides a detailed account of the geotectonic settings and mineralization processes that have led to Odisha's significant iron ore resources, aligning them with global metallogenic trends. B.K. Sahu, addresses the '*Sustainable Development of Mineral Resources*'. Sahu stresses the importance of mathematical statistics and optimization techniques in mining to ensure the long-term sustainability of mineral resources. He outlines methods to extend mine life, optimize extraction rates, and reduce environmental impact, thereby contributing to a balanced approach that supports both economic growth and ecological preservation. Moving into educational initiatives, K.C. Sahu's '*Geoscience to Geosense – A Basic Education*', highlights the importance of integrating geoscience education into basic curricula. Sahu advocates for a comprehensive educational framework that fosters awareness of earth sciences from an early age, equipping future generations with the knowledge to appreciate and manage the planet's geological resources responsibly. R. Nagendra and A.N. Reddy explore the use of '*Microfossil proxies; an Insight to the Deep in Age, Environment and Petroleum Exploration*'. This research illustrates how microfossils can serve as valuable indicators in reconstructing past climatic and environmental conditions, aiding in the exploration of petroleum reserves. The study emphasizes the role of microfossils in understanding biostratigraphy and palaeoecology, providing crucial data for the hydrocarbon industry. Finally, the issue concludes with a paper by Amulyadhan Rout on '*Water Provenance and Management*'. Rout's research highlights the challenges and strategies in managing water resources, particularly in regions affected by industrial activities. The paper discusses the provenance of water sources, contamination issues, and the implementation of effective management practices to ensure the sustainable use of water resources. Each of these contributions exemplifies the ongoing commitment to advancing geoscientific knowledge and addressing the pressing challenges of resource management and environmental conservation. We hope that this issue of '*GeoChronicle Panorama*' will inspire further research and collaboration among geoscientists, policymakers, and educators.

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