



**National Conference on Recent Trends in Engineering, Science,
Humanities and Management (NCRTESHM – 2023)**

29th January, 2023, West Bengal, India.

CERTIFICATE NO : NCRTESHM /2023/C0123228

**Assessment of Heavy Metal Contamination in The Yamuna River: Investigating
Toxicological Impacts on Aquatic Life and Human Health**

Manish Verma

Research Scholar, Department of Chemistry,
Sri Satya Sai University of Technology & Medical Sciences, Sehore, M.P., India.

ABSTRACT

The Yamuna River is a crucial water body in the Delhi-NCR region, supporting diverse ecosystems and meeting the water needs of millions of people. However, industrial activities, urbanization, and agricultural practices have led to significant pollution, resulting in the accumulation of heavy metals such as lead, mercury, cadmium, and chromium in its waters. This study aims to assess the extent of heavy metal contamination in the Yamuna River and investigate its toxicological effects on aquatic life and human health. By identifying areas of high contamination and understanding the toxicological effects, this research aims to provide valuable insights for policymakers, environmentalists, and public health officials. The study's outcomes will aid in formulating targeted pollution control measures and implementing strategies to safeguard the health of both the ecosystem and communities' dependent on the Yamuna River. Ultimately, this investigation contributes to the broader efforts of preserving this vital water resource and mitigating the impacts of heavy metal pollution on aquatic life and human well-being.

Keywords: *Metal, Pollution, Contamination, Toxicological, Aquatic.*