**EVENT TITLE:** **Advancements in Water Pollution Testing and Management: Exploring Innovative Approaches**

Undoubtedly, water pollution stands as a paramount environmental concern both on a global scale and within local communities. It arises when untreated or inadequately treated waste is released into streams, estuaries, and seas. Particularly in certain African countries, the pollution of water bodies exacerbates due to insufficient environmental testing and monitoring systems, as well as the weak enforcement of environmental regulations. Water is deemed polluted when certain substances or conditions reach levels that render the water unsuitable for specific purposes. Water pollution occurs when unwanted materials with potentials to threaten human and other natural systems find their ways into rivers, lakes, wells, streams, boreholes or even reserved fresh water in homes and industries.

Water pollution testing is a crucial component of environmental management, enabling the identification and mitigation of pollution sources, protection of water resources, and preservation of ecosystem health. It provides valuable information for decision-makers, policymakers, and stakeholders to take actions that safeguard water quality and ensure the sustainable use of water resources.

This Event on the “Advancements in Water Pollution Testing and Management” aims to bring together researchers, scientists, environmental professionals, policymakers, and industry experts from around the world to exchange knowledge, share insights, and discuss the latest advancements in water pollution testing, monitoring, and management strategies. This event will provide a platform for interdisciplinary discussions on the challenges and solutions associated with water pollution, with a focus on innovative testing methods, technologies, and sustainable management practices.

**SUB –TOPICS**

* Sampling Techniques for Water Pollution Testing
* Advanced Analytical Methods and Emerging Technologies for Water Pollution Testing
* Quality Assurance and Quality Control in Water Pollution Testing
* Laboratory Practices for Water Pollution Testing

**OBJECTIVES**

* Familiarize participants with the current challenges and issues associated with water pollution.
* Explore advanced sampling techniques and strategies for collecting representative water samples.
* Introduce participants to a wide range of analytical methods used for water pollution testing.
* Discuss the application of cutting-edge technologies for the detection and quantification of contaminants in water samples.
* Provide hands-on experience in laboratory practices related to water pollution testing.
* Showcase case studies highlighting successful applications of advancements in water pollution testing.
* Address quality assurance and quality control aspects to ensure reliable and accurate results.
* Discuss the interpretation and analysis of water pollution data for effective decision-making.
* Explore the role of water pollution testing in environmental management and policy development.
* Foster discussions and knowledge sharing among participants through interactive sessions.

**TARGET AUDIENCE**

* Laboratory technicians and analysts responsible for analyzing water samples in laboratories or field settings would greatly benefit from this event. It would enhance their understanding of different testing methodologies, instrumentation, and quality assurance protocols, enabling them to perform accurate and reliable water pollution tests.
* Environmental engineers and consultants involved in water resource management, pollution control, and remediation projects would find this event valuable. It would equip them with the necessary skills to assess and diagnose water pollution issues, design effective monitoring programs, and evaluate the effectiveness of pollution control measures.
* Scientists and researchers working in the field of environmental science, specifically in water quality assessment and monitoring, would find this event highly relevant. It would provide them with advanced knowledge and techniques for testing and analyzing water samples to identify pollutants and assess water quality parameters.
* Operators and technicians working in water and wastewater treatment plants would benefit from this event as it would deepen their knowledge of water quality parameters and the testing methods used to ensure compliance with regulatory standards. It would also provide insights into troubleshooting water quality issues and optimizing treatment processes.
* Government officials responsible for implementing and enforcing water quality regulations would benefit from this event. It would enhance their understanding of water pollution testing methods, data interpretation, and quality control, enabling them to make informed decisions and develop effective policies for water pollution control.
* Individuals from disciplines such as chemistry, biology, hydrology, and public health, who have an interest in water pollution testing and its implications, can also participate in the event to broaden their understanding and enhance their interdisciplinary skills.
* Educators involved in environmental science and sustainability education can attend this event to enhance their knowledge of water pollution testing. It would enable them to provide accurate and up-to-date information to their students and incorporate hands-on water quality testing activities into their teaching.
* Non-profit organizations working in the field of water conservation, environmental advocacy, and community engagement can benefit from the event. It would empower them with knowledge and skills to conduct independent water quality assessments, engage in citizen science initiatives, and advocate for better water pollution management practices.