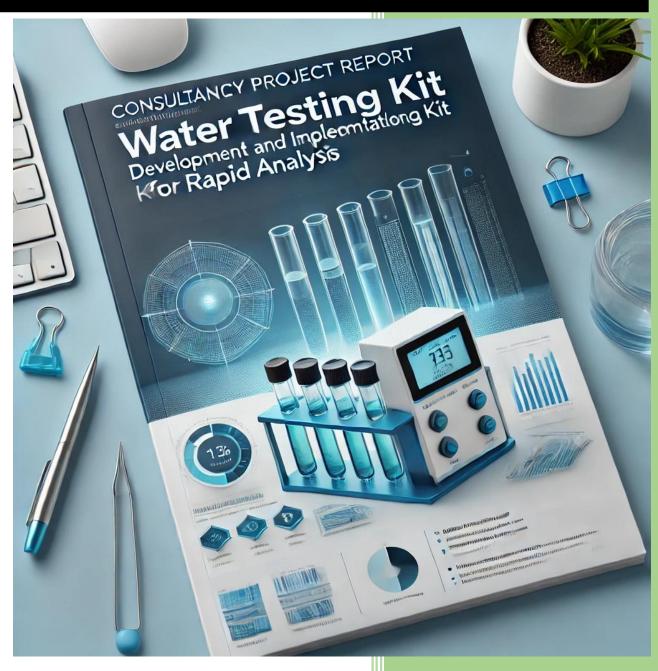






Consultancy Project Report: Development and Implementation of Water Testing Kit for Rapid Analysis 2023-24



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**Project Overview:** 

The Chemistry Department of Shri Shivaji Education Society's Science College, Nagpur, undertook a consultancy project aimed at developing a Water Testing Kit for rapid on-field analysis. The project was led by **Dr. Sarang S. Dhote and Dr. Yogita K. Meshram,** with the primary goal of providing a practical and hands-on learning experience for undergraduate students.

**Objective:** 

The main objective of the project was to design a user-friendly Water Testing Kit that could be employed by students for efficient and rapid water analysis in real-world scenarios. The initiative aimed to enhance the practical knowledge of undergraduate students and contribute to water quality assessment.

**Development Process:** 

Under the expert guidance of Dr. Dhote and Dr. Meshram, the team meticulously designed and assembled the Water Testing Kit. The kit incorporated essential components for assessing key water quality parameters, ensuring simplicity in operation while maintaining accuracy in results. The development process focused on creating a robust tool that could be easily utilized by students with minimal training.

**Distribution to Educational Institutes:** 

This academic session Water Testing Kits were given to various educational institutes affiliated with RTM Nagpur University, and Kongunadu Arts and Science College, Coimbatore. This strategic dissemination aimed to extend the benefits of the project to a broader academic community and foster collaboration in the realm of water quality assessment.

Collaboration -

After the payment for purchasing the Water Testing Kits, the respective institutions have also agreed to engage in collaborative research with the JAL project of SSESA's Science College. This partnership aims to further enhance the scope of water analysis by integrating their resources and expertise with JAL's innovative methodologies. The collaboration not only strengthens the network between institutions but also promotes the exchange of knowledge and research, contributing significantly to the development of water testing techniques and sustainable water management solutions.

## **Demonstration Sessions:**

Dr. Sarang S. Dhote conducted comprehensive demonstration sessions for students in Jawaharlal Nehru Arts, Commerce & Science College, Nagpur that acquired the Water Testing Kit. The sessions provided insights into the proper usage of the kit, interpretation of results, and an overall understanding of water quality parameters. These demonstrations played a crucial role in ensuring that the end-users could utilize the kit effectively.

## **Conclusion:**

The consultancy project undertaken by the Chemistry Department at Shri Shivaji Education Society's Science College has successfully resulted in the development and implementation of a valuable Water Testing Kit. This initiative not only contributes to the academic advancement of undergraduate students but also serves as a practical solution for water quality assessment in the affiliated institutes. The dedication and expertise of Dr. Sarang S. Dhote and Dr. Yogita K. Meshram have played a pivotal role in the project's success, setting a standard for best practices in experiential learning within the field of chemistry.





Figure 1- Demonstration of Advanced On Field Water Testing Kit by Dr. Sarang Dhote @ Jawaharlal Nehru Arts, Commerce & Science College, [M.S.], India on 11/12/2023.

## **Kits were Distributed following Institutes**

- 1. Tai Golwalkar Mahavidyalaya, Ramtek
- 2. Kamla Nehru College, Ramtek
- 3. Kongunadu Arts and Science College, Coimbatore
- 4. Jawaharlal Nehru Arts, Commerce & Science College
- 5. Arts Commerce and Science College, Pulgaon
- 6. Dr. B. R. Ambedkar College, NAgpur

After the payment for purchasing the **Water Testing Kits**, the respective institutions have also agreed to engage in **collaborative research** with the **JAL project** of **SSESA's Science College**. This partnership aims to further enhance the scope of water analysis by integrating their resources and expertise with JAL's innovative methodologies. The collaboration not only strengthens the network between institutions but also promotes the exchange of knowledge and research, contributing significantly to the development of water testing techniques and sustainable water management solutions.

## **Proof**

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Dr A A Halder Coordinator, IQAC Science College, Congress Nagar, Nagpur

Prof. M. P. Dhore
Principal
Science College,
Congress Nagar, Nagpur

