

# **Consultancy Project Report: Development and Implementation of Water Testing Kit for Rapid Analysis**

## **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:**

The Water Testing Kit was distributed to various educational institutes affiliated with RTM Nagpur University, SGB Amravati University, and Gondwana University, and also to the Environmental Agency. 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.

## **Demonstration Sessions:**

Dr. Sarang S. Dhote conducted comprehensive demonstration sessions for students in all institutes 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.

## **Hands-on Training on World Water Day:**

To commemorate World Water Day on March 25, 2023, hands-on training sessions were organized under the guidance of Dr. Yogita K. Meshram and Dr. Sarang S. Dhote. These sessions allowed students to actively engage with the Water Testing Kit, further enhancing their practical skills. The World Water Day event provided a platform for students to apply their knowledge in a meaningful and timely context.

### **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- Distribution of Water Testing Kit on 25/03/2023**



**Figure 2- Demonstration of Advanced On Field Water Testing Kit by Dr. Sarang Dhote @ J. D. Patil Sangludkar Mahavidyalaya, Darpur Dist. Amravati, [M.S.], India on 13/11/2022.**



**Figure 3- Demonstration of Advanced On Field Water Testing Kit by Dr. Sarang Dhote @ Arvindbabu Deshmukh College, Bharsingi Dist. Nagpur, [M.S.], India on 21/11/2022.**



**Figure 4- Hand Over Advanced Water Testing Kit to Dr. N. Patankar Chairman of Envinzoa, Nagpur.**



Shri Shivaji Education Society, Amravati's

**SHIVAJI SCIENCE COLLEGE**

CONGRESS NAGAR, NAGPUR - 440012

**Short DCR Report (All Receipt Book)**

Receipt Date From 01/09/2022 To 11/08/2023

Session : 2022-2023

Sr. No.	Receipt Number	Student Name	Course	Fee Type	Payment By	Amount
<b>Counter No. : C1</b>						
<b>Receipt Book Name : N G DEGREE COLLEGE MISC</b>						
<b>Date : 12/11/2022</b>						
1	C1/NG DC/O/2022-2023/2938	PRINCIPAL J.D.P.S. DARYAPUR	B.SC - I		C:0, B:2,000	2,000
<b>Total Receipts on Date 12/11/2022 : 1</b>						<b>12/11/2022 Total Fees Collection : 2,000</b>
<b>Date : 15/11/2022</b>						
1	C1/NG DC/O/2022-2023/2940	PRINCIPAL NABIRA MAHAVIDYALYA KATOL	B.SC - I		C:0, B:2,000	2,000
<b>Total Receipts on Date 15/11/2022 : 1</b>						<b>15/11/2022 Total Fees Collection : 2,000</b>
<b>Date : 18/11/2022</b>						
1	C1/NG DC/O/2022-2023/2939	PRINCIPAL ARVINDBABU DESHMUKH MAHAVIDYALYA BHARSINGI	B.SC - I		C:0, B:2,000	2,000
<b>Total Receipts on Date 18/11/2022 : 1</b>						<b>18/11/2022 Total Fees Collection : 2,000</b>
<b>Date : 22/11/2022</b>						
1	C1/NG DC/O/2022-2023/2983	PRINCIPAL KHATRI MAHAVIDYALAYA CHANDRPUR	B.SC - I		C:0, B:2,000	2,000
<b>Total Receipts on Date 22/11/2022 : 1</b>						<b>22/11/2022 Total Fees Collection : 2,000</b>
<b>Date : 15/02/2023</b>						
1	C1/NG DC/O/2022-2023/3542	PRINCIPAL SHIVAJI COLLEGE AKOLA	B.SC - I		C:2,000, B:0	2,000
<b>Total Receipts on Date 15/02/2023 : 1</b>						<b>15/02/2023 Total Fees Collection : 2,000</b>
<b>Date : 17/02/2023</b>						
1	C1/NG DC/O/2022-2023/3549	PRINCIPAL SURYODAYA COLLEGE OF ENGINEERING AND TECHNOLOGY NAGPUR	B.SC - I		C:2,000, B:0	2,000
<b>Total Receipts on Date 17/02/2023 : 1</b>						<b>17/02/2023 Total Fees Collection : 2,000</b>
<b>Date : 21/02/2023</b>						
1	C1/NG DC/O/2022-2023/3557	PRINCIPAL S.PUNDLIK MAHARAJ COLLEGE. NANDURA	B.SC - I		C:0, B:5,000	5,000
<b>Total Receipts on Date 21/02/2023 : 1</b>						<b>21/02/2023 Total Fees Collection : 5,000</b>
<b>Date : 20/03/2023</b>						
1	C1/NG DC/O/2022-2023/3749	PRINCIPAL YASHWANTRAO CHAVAN SCIENCE COLLEGE LAKHANDUR	B.SC - I		C:2,000, B:0	2,000
<b>Total Receipts on Date 20/03/2023 : 1</b>						<b>20/03/2023 Total Fees Collection : 2,000</b>
<b>Date : 23/03/2023</b>						
1	C1/NG DC/O/2022-2023/3903	PRINCIPAL S S JAISWAL COLLEGE ARJUNI MORGAON	B.SC - I		C:0, B:2,000	2,000
<b>Total Receipts on Date 23/03/2023 : 1</b>						<b>23/03/2023 Total Fees Collection : 2,000</b>
<b>Date : 24/03/2023</b>						
1	C1/NG DC/O/2022-2023/3924	PRINCIPAL RASHTRAPITA MAHATMA GANDHI ARTS AND SCIENCE COLLEGE NAGBHID	B.SC - I		C:0, B:2,000	2,000
<b>Total Receipts on Date 24/03/2023 : 1</b>						<b>24/03/2023 Total Fees Collection : 2,000</b>
<b>Date : 25/03/2023</b>						
1	C1/NG DC/O/2022-2023/3964	PRINCIPAL SANT GADGE MAHARAJ MAHAVIDYALAY HINGNA WATER TESTING KIT	B.SC - I		C:2,000, B:0	2,000
2	C1/NG DC/O/2022-2023/3977	PRINCIPAL N.H COLLEGE BRAMHAPURI	B.SC - I		C:2,000, B:0	2,000
<b>Total Receipts on Date 25/03/2023 : 2</b>						<b>25/03/2023 Total Fees Collection : 4,000</b>
<b>N G DEGREE COLLEGE MISC Total Fees Collection :</b>						<b>27,000</b>
<b>C1 Total Fees Collection :</b>						<b>27,000</b>
<b>Grand Total :</b>						<b>27,000</b>

# # Indicates cancel receipt

B indicates amount by chq/DD and C indicates amount by Cash

Print Date : 08/12/2023

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**Short DCR Report (All Receipt Book)**

Receipt Date From 01/09/2022 To 11/08/2023

Session : 2022-2023

Sr. No.	Receipt Number	Student Name	Course	Fee Type	Payment By	Amount
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**Bank Account Wise Summary**

Sr No.	Bank Name	AccountNumber	Amount
1	CENTRAL BANK OF INDIA	3753531013	27,000.00
<b>TOTAL :</b>			<b>27,000.00</b>

**Receipts Summary**

Sr.No.	Counter	Receipt No. From	Receipt Number To	Cancel Receipt Nos
1	C1	C1/NG DC/O/2022-2023/2938	C1/NG DC/O/2022-2023/3977	

Total Receipts Cancelled : 1

Cancelled Receipt Nos. : C1/NG DC/O/2022-2023/3748



Shri Shivaji Education Society, Amravati's

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Receipt Date From 01/09/2022 To 11/08/2023

Session : 2023-2024

Sr. No.	Receipt Number	Student Name	Course	Fee Type	Payment By	Amount
<b>Counter No. : C1</b>						
<b>Receipt Book Name : N G DEGREE COLLEGE MISC</b>						
<b>Date : 19/04/2023</b>						
1	C1/NG DC/O/2023-2024/33	N.PATANKAR ENVINZOA NAGPUR	B.SC - I		C:2,000, B:0	2,000
<b>Total Receipts on Date 19/04/2023 : 1</b>						<b>19/04/2023 Total Fees Collection : 2,000</b>
						<b>N G DEGREE COLLEGE MISC Total Fees Collection : 2,000</b>
						<b>C1 Total Fees Collection : 2,000</b>
						<b>Grand Total : 2,000</b>

**Bank Account Wise Summary**

Sr No.	Bank Name	AccountNumber	Amount
1	CENTRAL BANK OF INDIA	3753531013	2,000.00
<b>TOTAL :</b>			<b>2,000.00</b>

**Receipts Summary**

Sr.No.	Counter	Receipt No. From	Receipt Number To	Cancel Receipt Nos
1	C1	C1/NG DC/O/2023-2024/33	C1/NG DC/O/2023-2024/33	

Total Receipts Cancelled :

Cancelled Receipt Nos. :