



## ST. XAVIER'S COLLEGE, MAPUSA GOA

College with Potential for Excellence

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Awarded DBT STAR College Scheme

<b>Nature of Event</b> (Workshop, Guest Lecture, Add on Course, Seminar, etc.)	5 Day Interdisciplinary Workshop for Staff and Research Scholars
<b>Name of Department</b>	Microbiology
<b>Faculty Incharge</b>	Ms Ursula Barreto Ms Katelyn Gonsalves Ms Nadine de Souza
<b>Stratum of Event</b> (College, State, Regional, National)	National Level
<b>Title of Event</b>	<i>Operation and Maintenance of Laboratory Equipment</i>
<b>Date of Event</b>	8 <sup>th</sup> January to 12 <sup>th</sup> January 2024
<b>Venue</b>	St. Xavier's College
<b>Resource Person details</b>	Mr. N.N. Rao & Team Western Regional Instrumentation Centre (WRIC) Mumbai
<b>Objective/ Scope of Event</b>	<ul style="list-style-type: none"> <li>To provide comprehensive learning experience encompassing best practices in the use and application of available lab instruments.</li> <li>To equip participants with practical skills in the operation and maintenance of lab equipment.</li> </ul>
<b>Particulars of Event</b>	Technical lectures and Hands on Training sessions were conducted on the following topics: Introduction to Basic Electronic components and its applications. Systematic operation of instruments, Working principle and instrumentation, Essential calibration, Preventive maintenance, Trouble shooting, hands on practice of soldering, Power supply, Function Generator, CRO, DSO.
<b>Outcome of Event</b>	Participants gained technical skills in handling minor repairs, calibration and maintenance of instruments. Large number of instruments in the laboratories were serviced and many repaired.
<b>Feedback</b>	Hands on training sessions were very useful and provided skill development.

Total No. of Participants	40
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**Photographs**



**Programme 1: Physics/ Electronics & Instrumentation**

- Introduction to the basics of electrical and electronic equipment & components.
- Awareness and requirement of general repair and maintenance of laboratory instruments.
- Proper use of different types of multimeters and their repairing.
- Working and repair of various types of power supplies.
- Testing and on load calibration of power supplies.
- Handling of function generator and signal generator and their repairing.
- Handling of CRO, basic problems of CRO and repairing.

**Programme 2: Chemistry & Life Sciences**

- Introduction to the basics of electric and electronics equipment & components.
- Awareness and requirement of general repairs and maintenance of laboratory instruments.
- Repairing of electrical instruments like, hot plate, heating mantle, magnetic stirrer & water bath.
- Working, proper handling and repairing of temperature-controlled oven, incubator & water bath.
- Working principle repairing, maintenance and calibration of pH meter, pH electrode, colorimeters, flame photometer, spectrophotometer, & conductivity meter.
- Operation, repairing and maintenance of optical Microscope & analytical balance.

**Note:**

- Colleges must send their instruments for repair with their participants
- First day will be common for both programmes.

**ORGANIZING COMMITTEE**

**Patron**  
**Fr. Antonio Salema**  
Administrator, St. Xavier's College, Goa

**Chairperson**  
**Prof. Blanche Mascarenhas**  
Principal, St. Xavier's College, Goa

**Co-Chair**  
**Dr. Shivram S. Garje**  
I/C Director, WRIC, Mumbai

**Convener**  
**Ms. Ursula Barreto**  
Vice-Principal, HOD (Microbiology)  
St. Xavier's College, Goa

**Organizing Secretaries**  
**Ms. Katelyn Gonsalves**      **Ms. Nadine de Souza**  
Assistant Professor      Assistant Professor  
Dept. of Microbiology      Dept. of Microbiology

**Programme Coordinator**  
**Mr. N. N. Rao**  
Sr. Technical Officer, WRIC, Mumbai

**Faculty from WRIC, Mumbai**  
**Mr. Milind Shidruk**      **Mr. Sudhir Kumar**  
**Mr. Govind Chitte**      **Mrs. Minal Tamhankar**  
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**Organizing Coordinators**  
**Ms. Linette de Souza**      **Ms. Arina Frank**  
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**Dr. Alisha Malik**

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National Workshop  
on



**"Operation and Maintenance  
of Laboratory Equipment"**

8<sup>th</sup> to 12<sup>th</sup> January 2024

organized by  
**St. Xavier's College, Goa**  
**Department of Microbiology**

in collaboration with

**Western Regional  
Instrumentation Centre, Mumbai**

supported by



**Directorate of Higher Education**  
**Government of Goa**