



ONE WEEK NATIONAL WORKSHOP ON OPERATION AND MAINTENANCE OF LABORATORY INSTRUMENTS (FDP PROGRAMME)

JOINTLY ORGANISED BY

**MAR ATHANASIOUS COLLEGE
(AUTONOMOUS),
KOTHAMANGALAM, KERALA**

NAAC Accredited 'A+' Grade Institution
92nd Position in NIRF College Ranking 2025
8th Position in KIRF College Ranking 2024

&

**Western Regional Instrumentation
Centre, Mumbai**

A National Facility Centre in Instrumentation of UGC,
New Delhi

**In Association with
College Development Council,
Mahatma Gandhi University, Kottayam**

Date: 27 - 31 October 2025

Venue: Mar Athanasius College, Kothamangalam

ABOUT THE WORKSHOP

This five-day workshop is designed to build capacity among faculty members, laboratory assistants, technicians, students, and researchers in the effective upkeep of laboratory instrumentation. The initiative aims to address a critical gap in many academic institutions-the lack of adequate training in the maintenance, calibration, and basic repair of laboratory equipments. As a result, costly instruments are often rendered non-functional due to minor technical issues. By imparting fundamental operational and maintenance skills, the workshop seeks to enhance the functionality, longevity, and sustainability of laboratory facilities, thereby improving the overall quality of scientific education and research.

OBJECTIVES

- Briefing working principles and standard procedures of the analytical instruments
- Imparting skills in operation/calibration
- Teaching maintenance protocols and repair of laboratory instruments
- Coaching to identify the basic problem and to restore the same

EXPECTED OUTCOMES

- Operate instruments confidently with awareness of limits and proper usage
- Perform standard calibration and basic troubleshooting
- Carry out routine cleaning and preventive maintenance
- Upgrade technical skills through practical, hands-on training
- Apply best practices in handling equipment for teaching and research

PROGRAMME - I For Participants from Chemistry & Biosciences

- Introduction to the basics of electric and electronic equipment and its components.
- Awareness on general maintenance and repair of laboratory instruments.
- Working, proper handling and repairing of temperature-controlled oven, incubator, hot plate, heating mantle, magnetic stirrer & water bath.
- Working principle, maintenance, repairing and calibration of pH meter, pH electrode, colorimeter, flame photometer, spectrophotometer and Potentiometer, conductivity meter.
- Operation, repairing and maintenance of optical microscope & analytical balance.

PROGRAMME - II For Participants from Physics

- Introduction to the basics of electrical and electronic equipment & components.
- Awareness on general maintenance and repair of laboratory instruments.
- Proper use of different types of multimeters and their repairing.
- Working of various types of power supplies and repairs of most commonly used power supplies from the laboratory.
- Fabrication, testing and on load calibration of power supplies.
- Handling of function and signal generator and their repairing.
- Understanding the stage of CRO, basic problem of CRO and repairing of it.



ABOUT WRIC, MUMBAI

Western Regional Instrumentation Centre (WRIC), Mumbai, is an autonomous institution Established in 1977. It is funded by the University Grants Commission (UGC), New Delhi in association with University of Mumbai as a part of its comprehensive programme of establishing University Science Instrumentation Centres (USICs) all over the country. WRIC is engaged in R&D activities for the development of new instruments and technologies, including educational aids for effective training. The organization acts as a resource centre in instrumentation for more than 70 university science instrumentation centers spread all over India. At present, WRIC is the only regional instrumentation centre in India which has been recognized as a 'National Facility Centre for Instrumentation' by the government of India.

ABOUT MAR ATHANASIUS COLLEGE (AUTONOMOUS), KOTHAMANGALAM

Mar Athanasius College (Autonomous), established in 1955, is a premier institution dedicated to academic excellence and holistic education. Affiliated with Mahatma Gandhi University, the college offers 16 undergraduate, 16 postgraduate, 1 integrated postgraduate, and 6 doctoral programs across diverse disciplines.

The college is consistently ranked among the Top 100 institutions in India (NIRF) and secured 8th place in the Kerala Institutional Ranking Framework (2024) among arts and science colleges. It was the first institution in Kerala to be accredited and re-accredited with an 'A+' Grade by NAAC, and recognized as a College with Potential for Excellence (UGC, 2009). With a proud legacy spanning nearly seven decades, Mar Athanasius College continues to shape leaders, foster innovation, and contribute to societal progress.

ABOUT DEPARTMENT OF CHEMISTRY

The Department of Chemistry established in 1959 as an undergraduate department is one of the premier departments of M. A College. The department was upgraded to PG department in 1995 and recognized as a Research Centre in 1998. The department offers B.Sc.(Honours), M. Sc. and Ph. D programmes in Chemistry. The department has well equipped and modern laboratories for undergraduate, postgraduate and doctoral studies. All the faculty members of the department are Ph. D holders who lead research in diverse areas of the subject as well as interdisciplinary areas like nano chemistry, catalysis, organic synthesis, polymer chemistry and coordination chemistry. About more than 100 research papers and one patent have been produced by the faculty and students of the department.

Chief Patron

Dr. Winny Varghese
Secretary
Mar Athanasius College
Association,
Kothamangalam

Dr. Shivram S. Garje
I/C Director
WRIC, University of
Mumbai

Chairperson
Prof.(Dr.) Manju Kurian
Principal, MA College

Programme Coordinator
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Technical Officer II (WRIC)

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Faculty Members from WRIC, Mumbai

1. Ms. Minal Tamhankar
2. Ms. Sarita Thopte
3. Mr. Milind Shidruk
4. Mr. Sudhir Kumar
5. Mr. Govind Chitte
6. Mr. Swapnil Jadhav
7. Mr. Devendra Gunde

Organizing Committee [Mar Athanasius College (Autonomous)]

1. Dr. Aby P Varghese, Vice Principal, MA College
2. Dr. Minnu James, IQAC Coordinator, MA College
3. Dr. Annu Anna Varghese, HOD, Associate Professor, Department of Chemistry MA College
4. Dr. Binu Varghese, Associate Professor, MA College
5. Dr. Marymol Moothedan, Assistant Professor, MA College
6. Dr. Sherin Philip, Assistant Professor, MA College
7. Dr. Raghi KR, Assistant Professor, MA College
8. Dr. Arya C G, Assistant Professor, MA College

Who can apply?

- Faculty members, research scholars, lab assistance, technicians, students and research scholars from Physics / Chemistry/ Bio- Sciences backgrounds.
- Maximum number of participants for programme I - 35
- Maximum number of participants for programme II - 15

Registration fee: 1800/-

(Including workshop kit, lunch, tea & snack)

Scan for Registration



[Click here for Register](#)

Last date for registration : 20/10/2025



Scan to pay

The Participants will be given certificates at valedictory function on last day

Note: Participation in this Faculty Development Programme is recognized for Career Advancement Scheme (CAS) promotion as per UGC regulations