



## Two – Days Skill Development Program

On

# Instrumental Methods of Characterization & Classical Analysis of Glass, Ceramics & Allied Samples

12<sup>th</sup> & 13<sup>th</sup>  
September, 2024

***Analytical Chemistry Section (AMCCD)***

**CSIR-Central Glass and Ceramic Research Institute**



# CSIR Integrated Skill Initiative Skill Development Training Programme

**2024 - 2025**

## Techniques of Chemical Characterization



**CSIR-CGCRI Skill Development Training Centre**  
*196 Raja S. C. Mullick Road, Kolkata 700 032*

## **About CSIR**

Council of Scientific and Industrial Research (CSIR) established in 1942 under Ministry of Science and Technology, Govt. of India is an autonomous Society whose President is the Prime Minister of India. CSIR an ensemble of 37 state-of-the-art institutes, 39 outreach centers, 3 Innovation Complexes, and five units with a pan-India presence. Today CSIR is amongst the foremost scientific and industrial research organizations in the world. CSIR expertise and experience is embodied in its ~ 4600 scientists and 8000 scientific and technical support personnel apart from ~ 7000 research students. Over the years, this unique organization has served as a springboard for scientific and technological activities in a wide variety of S&T domains. It has helped India usher in a scientific milieu, creating and nurturing talent in science, innovation and technology.

## **About CGCRI**

Central Glass and Ceramic Research Institute (CGCRI) is one of the premiere laboratories set up under Council of Scientific & Industrial Research (CSIR). Even though it started functioning in a limited way in 1944, the Institute was formally inaugurated on August 26, 1950. Development of various type of glass & ceramics brought CGCRI into limelight in the international arena.

CSIR-CGCRI has vast and strong expertise in the field of traditional ceramics, glasses, refractory, water technology and materials characterization. The institute is well equipped with various state-of-the-art instruments for characterizing different aspects of glass and ceramic raw materials and products. In the recent past, CSIR-CGCRI has also developed affordable water treatment plant which can be installed comfortably in remote areas for safe drinking water. CSIR-CGCRI is constantly working in technological and skill development of the artisans engaged in the traditional terracotta products.

## **The Program**

The main objectives of this training programme to provide training on chemical characterization of glass, ceramics and allied materials by modern instrumental techniques as well as classical analysis by using internationally accepted standard methods. The training programme will be focused on (i) advanced instrumental analysis using different instruments like UV-Visible Spectrophotometer, Atomic Absorption Spectrometer, Inductively Coupled Plasma-AES and ICP-MS methods (ii) Classical method of chemical analysis (iii) Complete chemical analysis of glasses.

# Training Calendar for the Year 2024-2025

## Skill development training

on

### Techniques of chemical characterization of glass, ceramic and allied materials

Sl. No.	Title of the course/module	Course details	Schedule	Eligibility	Contact person
1.	Advanced Instrumental Analysis	Advanced Training on Principle and Application of UV-Vis Spectrophotometer, Atomic Absorption Spectrophotometer, ICP-AES and Ion Meter related to characterization of Glass, Ceramic and allied materials.	<b>All 4 days program</b>	B.Sc/ B. Tech/ M. Sc.	<b>Dr. P.K. Sinha</b> Senior Principal Scientist & Head, Analytical Chemistry Section. Nodal Officer, Skill Development Training Programme Mob: 9432012945 Email:
			23th September to 26th September, 2024		
			10th December to 13th December, 2024		
			18 <sup>th</sup> February to 21 <sup>th</sup> February, 2025		
2.	Classical Method of Chemical Analysis	Special Training on Classical Analysis for specific constituents of Glass Ceramic and allied materials like SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , Fe <sub>2</sub> O <sub>3</sub> , CaO, MgO, Cr <sub>2</sub> O <sub>3</sub> , ZrO <sub>2</sub> , P <sub>2</sub> O <sub>5</sub> , LOI	<b>2 days/ 4 days program</b>	B.Sc/ B. Tech/ M. Sc.	cgcri.skill21@gmail.com <a href="mailto:psinha@cgcri.res.in">psinha@cgcri.res.in</a> <b>Mr. Jyotirmay Sikdar</b> Chief Scientist & Head, AMCCD Mob: 9958327190 Email: cgcri.skill21@gmail.com <a href="mailto:jyotirmay@cgcri.res.in">jyotirmay@cgcri.res.in</a>
			12 <sup>th</sup> & 13 <sup>th</sup> September 2024		
			19 <sup>th</sup> November to 22 <sup>nd</sup> November, 2024		
3.	Complete Chemical Analysis of Glass	Advanced Training on Complete Chemical Analysis and Related Grading of Different Type of Glass	<b>All 4 days program</b>	B.Sc/ B. Tech/ M. Sc.	
			21st January to 24th January, 2025		

**Mode of Training:** Onsite Training for limited number of students - preferably 12-15 Nos. at CSIR-Central Glass & Ceramic Research Institute, 196 Raja S C Mullick Road, Jadavpur, Kolkata 700032.

**Registration:** Free of cost. Please fill up the attached application form and mail to the contact person at least 7 days before.

*No TA/DA will be provided to the participants*

**CSIR-CENTRAL GLASS AND CERAMIC RESEARCH INSTITUTE(CGCR)**  
Council of Scientific and Industrial Research  
196, Raja S.C. Mullick Road, Kolkata- 700032



## **CSIR-Central Glass & Ceramic Research Institute, Kolkata**

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### **Naroda Outreach Centre**

168-169, Naroda Industrial Estate, Ahmedabad - 382330, Gujarat

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Email: [siccgcrinc@cgcri.res.in](mailto:siccgcrinc@cgcri.res.in)

### **Khurja Outreach Centre**

G. T. Road, Khurja - 203131, Uttar Pradesh

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