



# CSIR Integrated Skill Development Training Program

on

*Principle and Application of Inductively Coupled Plasma Atomic Emission Spectrophotometer, Atomic Absorption Spectrophotometer, UV-VIS Spectrophotometer, Ion Meter Related to the Characterization of Glass Ceramics and Allied Materials.*

**July 25<sup>th</sup> –28<sup>th</sup>, 2023**

*Analytical Chemistry Section*

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

# CSIR Integrated Skill Initiative

## Skill Development Training Programme 2023-24 on 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 the area of technological and skill development of the artisans engaged in the traditional terracotta products.

### The Programme

The main objectives of this training program is 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 ISE meter, UV-Visible Spectrophotometer, Atomic Absorption Spectrometer and Inductively Coupled Plasma-Atomic Emission Spectrometer (ii) Classical method of chemical analysis (iii) Complete chemical analysis of glass and related materials.

## Training calendar for the year 2023-2024

### Activity: Skill Development Training on Chemical Characterization of Glass, Ceramic and Allied Materials

Sl. No.	Title of the Course/Module	Course Details	Duration	Eligibility	Contact Person
1.	Advanced Instrumental Analysis	Advanced Training on Principle and Application of UV-Vis Spectrophotometer, Atomic Absorption Spectrophotometer, ICP-AES and ISE Meter related to characterization of Glass, Ceramic and allied materials.	4 days, June 20-23, 2023 and 4 days August 22-25, 2023	B.Sc./B.Tech and above	Dr. P. K. Sinha Sr. Principal Scientist & Head, Analytical Chemistry Section & Nodal, Skill Development Programme Mob: 9432012945 Email: cgcri.skill21@gmail.com psinha@cgcri.res.in
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 <sub>2</sub> O <sub>3</sub>	4 days, July 25 - 28, 2023 and 4 days September 12-15, 2023	B.Sc./B.Tech and above	Mr. Jyotirmay Sikder Chief Scientist & Head, AMCCD Mob: 9958327190 Email: cgcri.skill21@gmail.com jyotirmay@cgcri.res.in
3.	Complete chemical analysis of glass	Advanced Training on Complete Chemical Analysis and Related Grading of Different Type of Glass.	4 days November 07-10, 2023 and 4 days January 16-19, 2024	B.Sc./B.Tech and above	

**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.

**Accommodation:** Accommodation can be arranged on a charge basis if request may come in well advanced.



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

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### Naroda Outreach Centre

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