







Four-Day Skill Development Training Program

ADVANCED TRAINING ON PRINCIPLE AND APPLICATION OF UV-VIS SPECTROPHOTOMETER, ATOMIC ABSORPTION SPECTROPHOTOMETER, ICPAES, ION METER AND CLASSICAL ANALYSIS FOR CHEMICAL CHARACTERIZATION OF GLASS, CERAMIC AND ALLIED MATERIALS

25th to 28th June, 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 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

SI. No.	Title of the course/m odule	Course details	Schedule	Eligibility	Contact person
1.	Advanced Instrument al 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.	All 4 days program 25th June to 28th June, 2024. 23th September to 26th September, 2024 10th December to 13th December, 2024 18 th February to 21 th February, 2025	B.Sc/ B. Tech/ M. Sc.	Dr. P.K. Sinha Senior Principal Scientist & Head, Analytical Chemistry Section. Nodal Officer, Skill Development Training Programme Mob: 9432012945 Email: cgcri.skill21@gmail.co m psinha@cgcri.res.in Mr. Jyotirmay Sikdar Chief Scientist & Head, AMCCD Mob: 9958327190 Email: cgcri.skill21@gmail.co m jyotirmay@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 ₂ , Al ₂ O ₃ , Fe ₂ O ₃ , CaO, MgO, Cr ₂ O ₃ , ZrO ₂ , P ₂ O ₅ , LOI	All 4 days program 23rd July to 26th July, 2024 19 th November to 22 nd November, 2024	B.Sc/ B. Tech/ M. Sc.	
3.	Complete Chemical Analysis of Glass	Advanced Training on Complete Chemical Analysis and Related Grading of Different Type of Glass	All 4 days program 20th August to 23th August, 2024 21st January to 24th January, 2025	B.Sc/ B. Tech/ M. Sc.	

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 & Ceramic Research Institute, Kolkata

196, Raja S. C. Mullick Road, Jadavpur, Kolkata - 700032, West Bengal

Tel.: +91-33-24735829/24839241; Fax: +91 33 24730957

Email: dir_office@cgcri.res.in, URL: www.cgcri.res.in

Naroda Outreach Centre

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

Tel.: +91-79-22823345/1747; Fax: +91-79-22822052

Email: siccgcrinc@cgcri.res.in

Khurja Outreach Centre

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

Tel.: +91-5738-232501/245433; Fax: +91-5738-245081

Email: cgcrikc@cgcri.res.in