

About IIT Kharagpur



IIT Kharagpur, the first, the largest and the most diversified among the IITs, has always been the leader since its inception year 1951. The motto of IIT Kharagpur is "Yogah Karmasu Kaushalam". This literally translates to "Excellence in action is Yoga", essentially implying that doing your work well is (true) yoga. IIT Kharagpur has 19 academic departments, eight multi-disciplinary centres/schools, and 13 schools of excellence in addition to more than 25 central research and development units.

The Institute takes pride in its relentless effort to provide the best platform for both education as well as research in the areas of science and technology, infrastructure designs, entrepreneurship, law, management, and medical science and technology. IITKGP is not just the place to study technology, it is the place where students are taught to dream about the future of technology and beam across disciplines, making differences enough to change the world.



Program Features / Structures

40 working hours
(8 hours each day)

Classroom lectures – **32 hours**
Laboratory visits – **8 hours**

Program Fee

Nil for TEQIP-III sponsored participants.

For others - INR /- (thousand) + GST @18% per participant.

Last day of Registration

30 April 2020

Program Schedule and Venue

5 days, 18 – 23 May 2020

Seminar Room, Materials Science Centre, IIT Kharagpur

Eligibility

B.E. / B.Tech- Ceramic Engineering, Materials and Metallurgical Engineering, Mechanical Engineering, Nanoscience and Nanotechnology.

M.Sc- Physics, Materials Science

Accommodation

Accommodation will be provided to the TEQIP-III sponsored participants at the campus Guesthouse. For other participants, the same will be provided on chargeable basis as per rule.

How to apply

Use the link: _____ to apply **ONLINE**.



Payment if applicable is to be done **ONLINE** after getting short listed for the program.

Contact Us

Dr. Shibayan Roy, Assistant Professor,
Materials Science Centre
Indian Institute of Technology, Kharagpur
Phone: **+91-3222-283962**
Email: **shibayan@matsc.iitkgp.ac.in**



NPIU

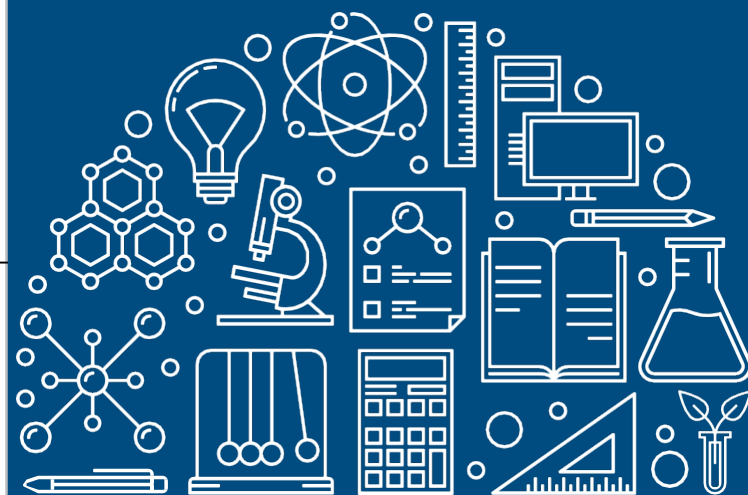
TEQIP-KIT
TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME KNOWLEDGE INCUBATION FOR TEQIP

NPIU - A Unit of MHRD, Govt of India for Implementation of World Bank Assisted Projects in Technical Education

Indian Institute of Technology, Kharagpur

Introduction to Glass Science & Technology

5 Days
18 – 23 May, 2020



Introduction / Overview

Glass is a solid- like and transparent material that is used in numerous applications in our daily lives. Natural and abundant raw materials such as sand, soda, ash, limestone are melted at high temperature to make glass. At high temperature glass is structurally similar to liquids, however at ambient temperature it behaves like solids. It is an unlimited and innovative material that has plenty of products that we use everyday which clears that modern life would not be possible without glass.

Program Objectives

The objective of the course is to provide a broad interview about glassy materials to the participants. It is an amalgamation of various scientific and technological aspects associated with the commercial production of glassy materials.

Program Content

Introduction to glass and their importance in modern and ancient times.

Theory of glass formation.

Structure of glass in microstructural and atomic level.

Structure property relationship of glass.

Manufacturing process of glass in details.

Mechanical properties of glasses.

Alteration to be done in glassy material to achieve required specifications.

Discussion about some special type of glassy material like bulk metallic glass, glass-ceramics, borosilicate glass, non-oxide glass, chalcogenide glass, optical fibres etc.

Various laboratory visits related to different aspect of glass making and characterization.

About the faculty

Dr. Shibayan Roy

Dr. Shibayan Roy is currently an Assistant Professor in the Materials Science Centre of Indian Institute of Technology, Kharagpur in India. As for his research interest, Dr. Roy have been so far involved in the broad area of **“Processing-Structure-Property correlation”** through the understanding of micro-mechanisms that governs the fundamental mechanical response of materials.

