

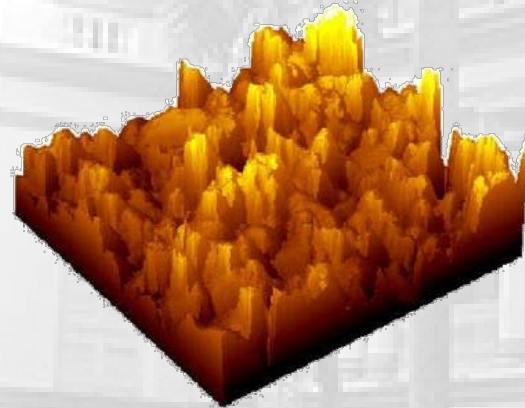
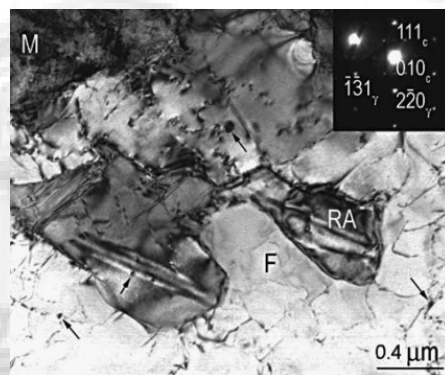
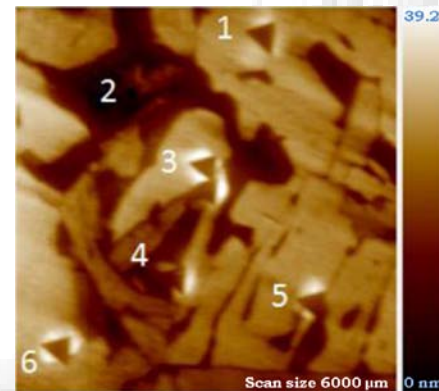
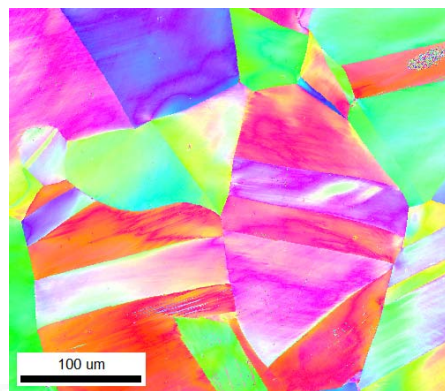
# WORKSHOP

ON

## MATERIALS CHARACTERISATION TECHNIQUES

**October 4-5, 2016**

**Venue: Dr. Triguna Sen Auditorium, Jadavpur University**



**Organised By**



**Centre of Excellence, TEQIP-II  
Jadavpur University, Kolkata-700032, West Bengal, INDIA**

### JADAVPUR UNIVERSITY

The great sons, patriots, freedom fighters and visionaries of the then Bengal took courage to start the National Council of Education for imparting technical education, challenging the elitist education system provided by the British rulers during the pre-independence era. One objective was to develop technical manpower for the purpose of nation building. After independence the NCE, Bengal was converted to Jadavpur University in 1955 through an act of West Bengal State Assembly. Since then Jadavpur University is a fully state-aided university providing very low cost, but very high quality engineering education. Apart from Faculty of Engineering and Technology, the university provides very high quality education in Arts, Science and also in various interdisciplinary areas. There are 17 departments under Faculty of Engineering and Technology. The university is one of the first five universities in India on the basis of Teaching and Research quality as assessed by the University Grants Commission.

### CENTRE OF EXCELLENCE

Centres of Excellence (COE) are established under Technical Education Quality Improvement Programme (TEQIP-II) with an intention of setting up specialised centre to evolve collaborative and multidisciplinary research within specific thematic areas of regional and national importance. The award to establish the Centre of Excellence in Phase Transformation and Product Characterisation under TEQIP-II, a World Bank assisted programme, under the Faculty of Engineering & Technology with participation of Departments, like Mechanical, Metallurgical and Materials, Production, Chemical, Computer Science, Information Technology reflects the very recent achievements of different participating departments towards Engineering Education and Research excellence in India.

### OVERVIEW OF THE WORKSHOP

Characterisation of materials helps to reveal materials' structure which explains various properties of different types of materials. It is a central process in the domain of metallurgy and materials science, without which no scientific understanding of engineering materials could be established. While many characterisation techniques have been practiced for centuries, such as basic optical microscopy, new techniques and methodologies are constantly emerging. This allows the imaging and analysis of structures and compositions on much smaller scales than was previously possible, leading to a huge increase in the level of understanding as to why different materials show different properties and behaviours. The proposed workshop in these thematic areas would take place under the aegis of Centre of Excellence in Phase Transformation and Product Characterisation-TEQIP II of Jadavpur University.

**TOPICS TO BE ADDRESSED:**

- Hardness in macro, micro and nano length scales
- Toughness characterisation
- Spectroscopic methods
- X ray diffraction
- Scanning electron microscopy: imaging, chemical composition analysis
- Electron back scattering diffraction
- Transmission electron microscopy
- Atomic Force Microscopy
- Nondestructive methods

**FACULTIES FOR THE WORKSHOP ARE FROM:**  
IISc, IITs, BARC, VECC, NML, NIT, JU

**IMPORTANT DATES**

Last Date of Registration: September 24, 2016

**NOTE:**

- ✓ No TA/DA will be provided to the participants.
- ✓ Only limited number of participants will be selected on first-cum-first-serve basis.

**REGISTRATION: No Registration Fee**

**HOW TO REGISTER?**

Interested participants may send their application in prescribed form to the Organising Secretary on or before September 24, 2016 (FILLED-IN REGISTRATION FORM MAY BE SENT BY E-MAIL).

**ADDRESS FOR CORRESPONDENCE**

- **Dr. Amrita Kundu**  
Organising Secretary  
Workshop on Charecterisation Techniques  
Metallurgical and Material Engineering Department  
Jadavpur University, Kolkata-700032  
Email: akundu05@gmail.com
- **Prof. P. C. Chakraborti**  
Coordinator, Centre of Excellence (TEQIP-II)  
Jadavpur University, Kolkata-700032  
Email: pcchakraborti@metal.jdvu.ac.in  
Mobile No: 09830236451

**REGISTRATION FORM**

**WORKSHOP**

**ON**

**MATERIALS CHARECTERISATION TECHNIQUES**

October 4-5, 2016

Last Date of Registration: September 24, 2016

Name: .....

Highest Qualification: .....

Designation: .....

Organization: .....

Address: .....

Email ID: .....

Mobile No: .....Fax No. ....

Date:

Place:

Signature of the applicant

To be forwarded by HOD/Supervisor for students and Faculties

Signature and Seal of Research Advisor/HOD