

Department of Metallurgy Engineering and Materials Science Indian Institute of Technology (IIT) Indore, 453552

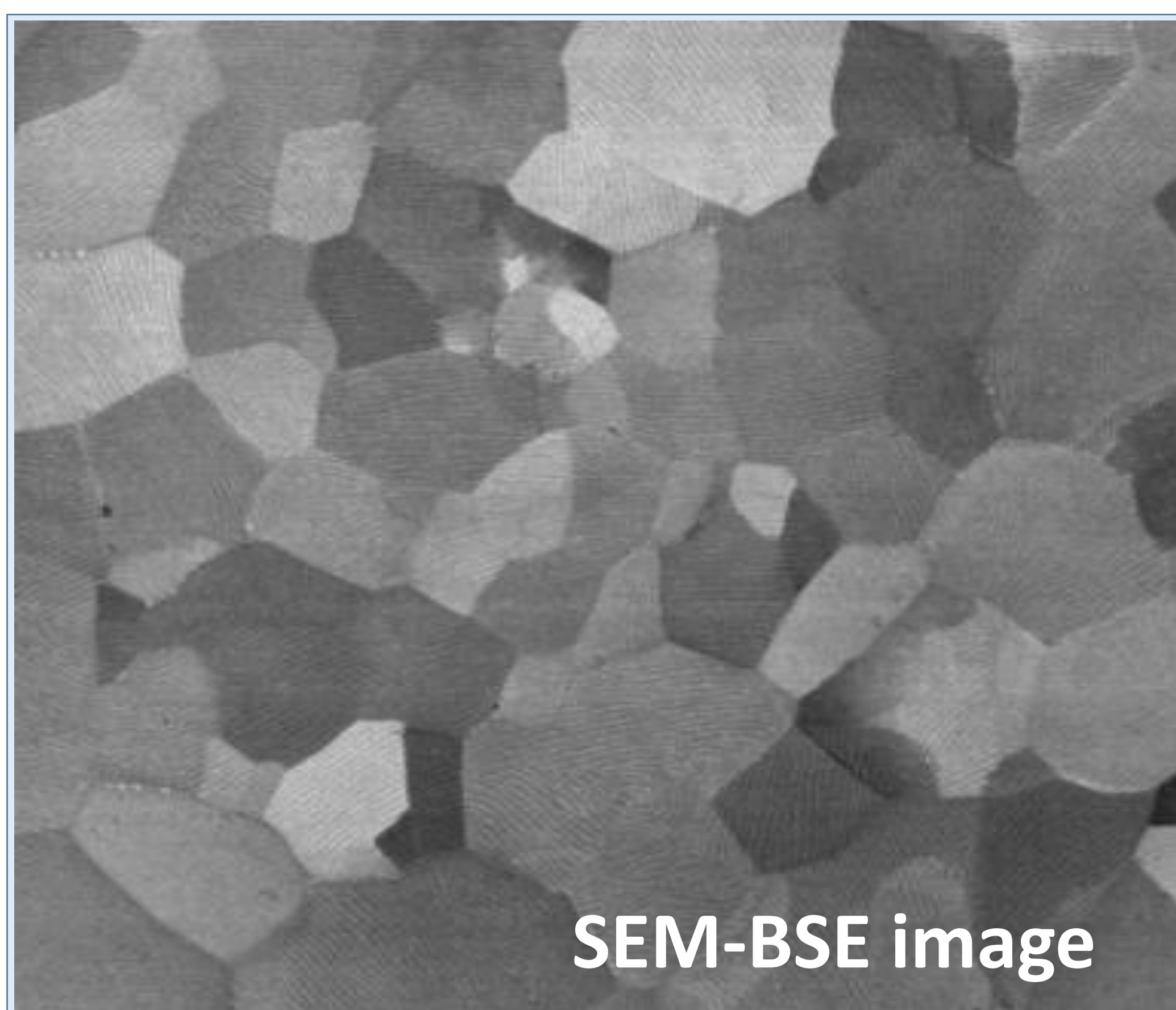


Organizing 6-days Online Short-Term Course on “Materials Characterization Techniques” March 22-27, 2021 (online)

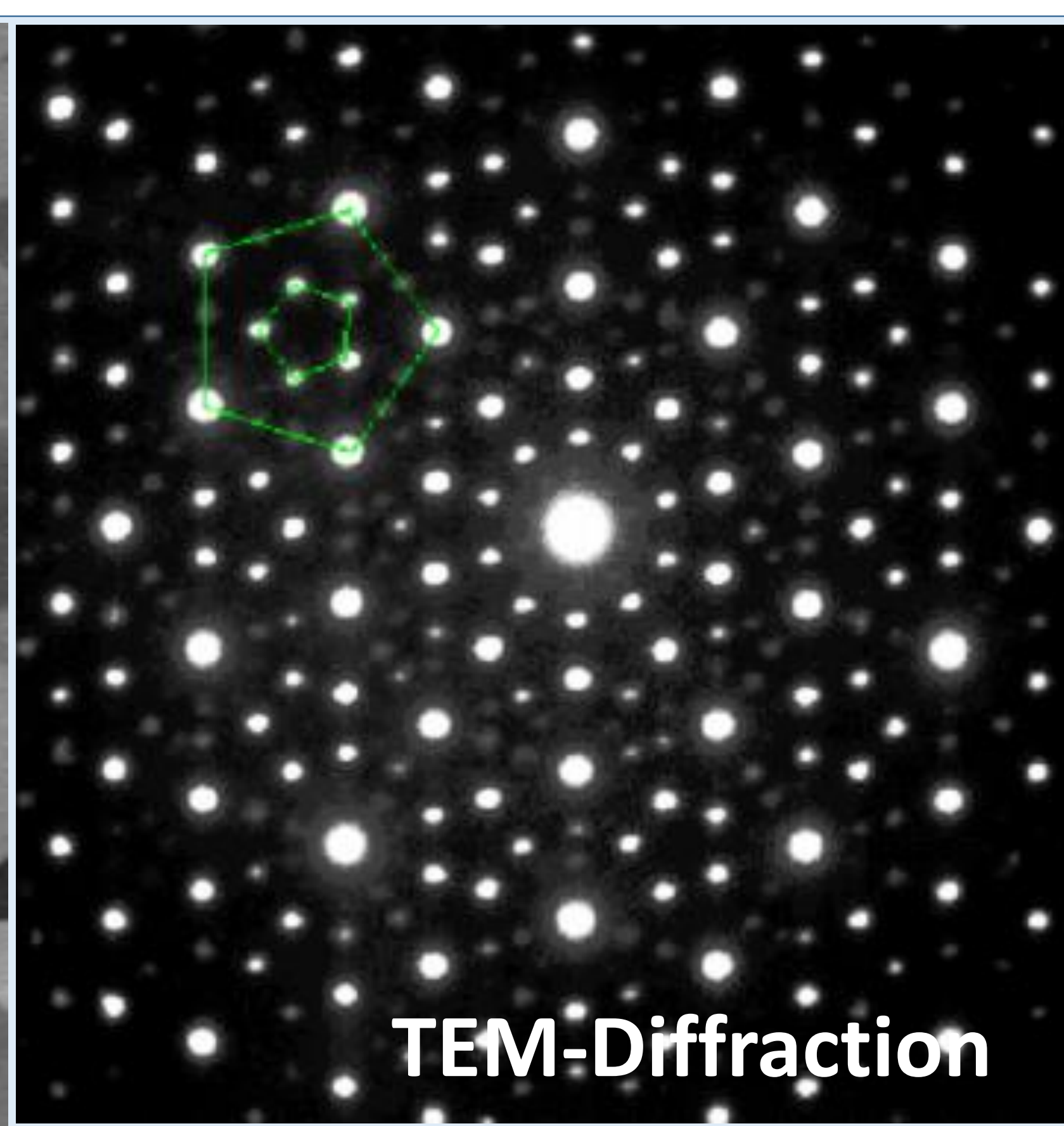


Under Quality Improvement Program (QIP), AICTE

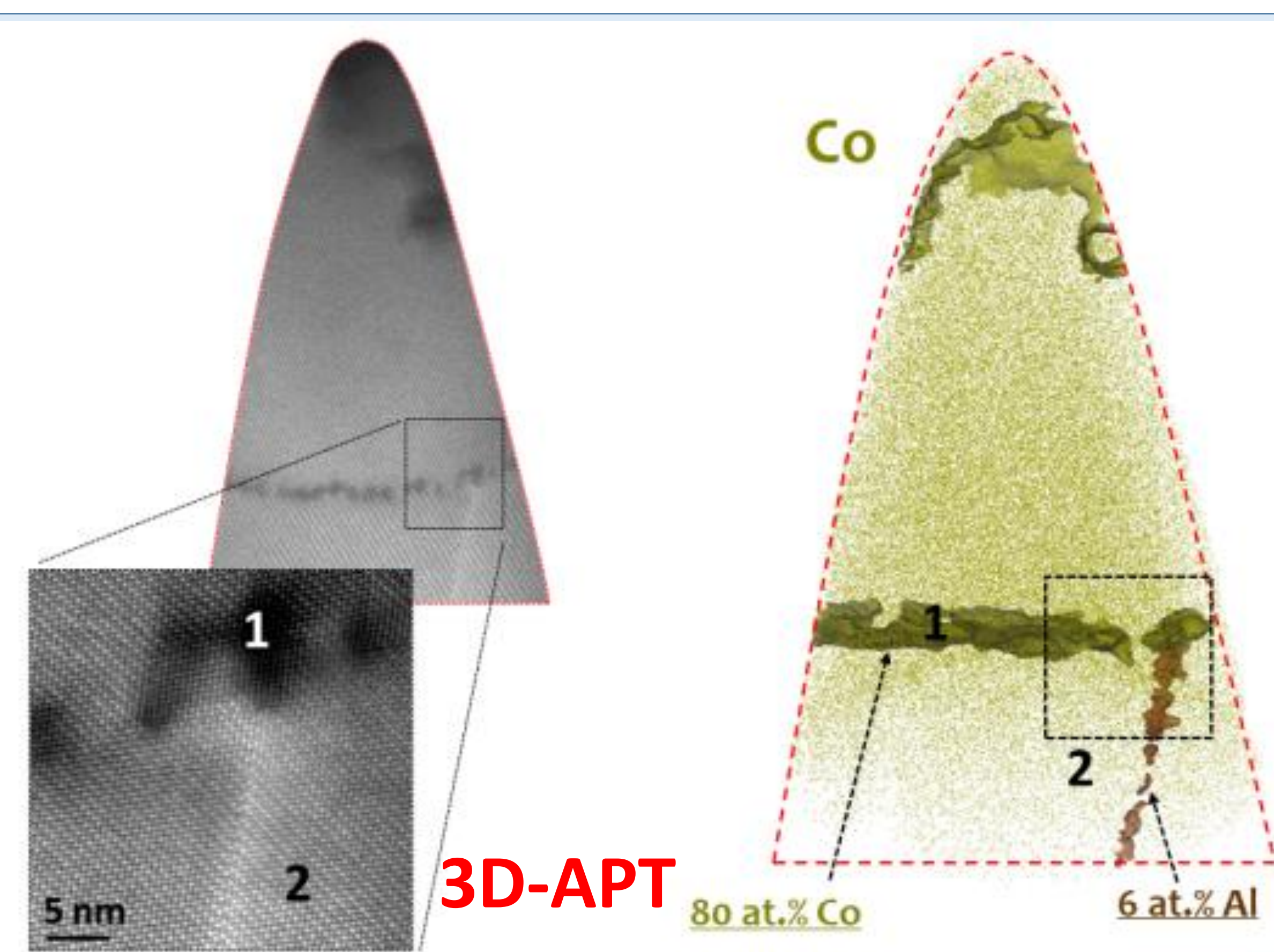
Objective of the Short-Term Course (online): This course focuses on the experimental techniques which are widely used for the structural, morphological, and spectroscopic characterization of materials. Moreover, this course provides concise but thorough coverage of the practical aspects of the analytical techniques used to characterize a wide variety of materials. The course provides an overview of material characterization techniques such as XRD, SEM, TEM, Thermal analysis, Atom probe tomography, SIMS, Raman spectroscopy, FTIR, XPS, and other advanced characterization techniques for a broad audience: the faculty members, scientist, students in college/institutes, research organizations as well as industry personnel.



SEM-BSE image



TEM-Diffraction



3D-APT

Course Syllabus: X-ray Diffraction, Application of Synchrotron radiation, Resolution and magnification, Electron beam interaction and modes of operation of SEM, Energy dispersive spectroscopy (EDS) and Wavelength dispersive spectroscopy (WDS), Electron Probe Micro Analyser (EPMA), Specimen preparation for SEM and TEM, Electron diffraction and Imaging in TEM, Image simulation, Thermal analysis, Atom probe tomography (APT), Secondary Ion Mass Spectroscopy (SIMS), Raman spectroscopy, Fourier transform infrared spectroscopy (FTIR), UV spectroscopy, X-ray photoelectron spectroscopy (XPS), Nuclear magnetic resonance (NMR), superconducting quantum interference device (SQUID), Vibrating Sample Magnetometer (VSM), Electrochemical Impedance Spectroscopy (EIS).

Registration Process:

Interested participants need to submit an online registration form on given link:

<https://forms.gle/N6gUgbf13EsohUWC8>

The below particulars need to be required during registration along with a scanned copy of your institute/organization identity card.

Name:
Designation:
Institution/Organization:
Address of Institution/Organization:
Academic qualification:
Are you a faculty member from AICTE approved College/Institute?(**Yes or No**):
E-mail id:
Phone/Mobile No.:

Registration Deadline: March 18, 2021

Notification of Acceptance: March 20, 2021

Duration of Course: March 22-27, 2021

Registration Fee: No registration fee for AICTE approved Institutes faculties only
Registration fee for other participants :- Rs 5000 for Industry Personnel, Rs 3000 for faculty/scientist, Rs1000 (For students UG,PG,Ph.D.) You should send/Email the Payment receipt to the Course Coordinators.

Online Mode of Payment (Email the proof of payments to the course coordinator):

Please click or copy & paste following link:

<http://www.iiti.ac.in/page/e-payments>

OR

Directly transfer in following account :

Beneficiary Name: Registrar, IIT Indore
Bank Name: Canara Bank
Branch: IIT Indore, Khandwa Road, Simrol, Indore 453552
Account Number: 1476101027440
IFSC Code: CNRB0006223
SWIFT Code: CNRBINBBISG

Course Coordinators:

Dr. Vinod Kumar, Assistant Professor
Dr. Ram Sajeevan Maurya, Assistant Professor
Dr. Dudekula Althaf Basha, Assistant Professor
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The course will be conducted in online mode and the weblink will be provided to all the registered candidates.

