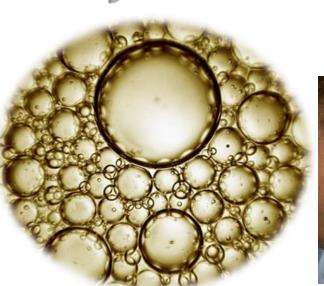


SCHOOL OF CHEMICAL ENGINEERING (SCHEME) In association with IIChE VIT Student Chapter







Value Added Course on SOFTWARE TOOLS FOR NANOSCALE MATERIAL CHARACTERIZATION IN ENGINEERING APPLICATIONS

11th, 12th, 18th, & 19th January 2020

Venue: SMV 110 (Smart Class Room) No of Participants: 60 Registration fee: Rs. 400/-(per head)

Coordinators and Resource Persons: Dr. Aabid Hussain Shaik Dr. Mohammed R. Chandan SCHEME



SOFTWARE TOOLS FOR NANOSCALE MATERIAL CHARACTERIZATION IN ENGINEERING APPLICATIONS



Nanomaterials now-a-days find immense application in many domains such as in conducting films, sensors, drug delivery, nanofluids, lab on chip, energy storage devices, catalysis etc. due to unique optical, electrical, mechanical and chemical properties. Hence, proper characterization of these nanomaterials in terms of phase morphology, crystal structure and surface properties are very essential. This course will equip the participants with various software tools in analysing nanoscale properties of materials.

Session	Торіс
Day 1	Introduction to the world of nanoscience and
	nanotechnology.
	Synthesis and stability of nanostructures
	Hands-on session on synthesis of nanoparticles
	(Practical Session)
Day 2	Characterization techniques at nanoscale –
	SEM, TEM, EDAX, UV etc
	Hand-on session on morphological analysis
	using ImageJ software
	(Practical Session)
Day 3	Application in heat transfer
	Application in conducting films.
	Phase analysis using SASfit.
	(Practical Session)
Day 4	Interpretation of crystal lattice using JCPDS
	(Practical Session)

11th, 12th, 18th, & 19th January 2020

Course outcome:

- 1. Understand the synthesis of nanomaterials and their application
- 2. Describe the basic science behind the properties of materials at the nanometer scale
- 3. Comprehend advanced experimental and computational techniques for characterizing nanomaterials





Coordinators and Resource persons: Dr. Aabid Hussain Shaik Dr. Mohammed R. Chandan SCHEME

E-mail: aabidhussain.s@vit.ac.in & md.rehaanchandan@vit.ac.in

<u>Click here</u> to Register Or log in using https://bit.ly/2R1tfVj For any queries contact -Student coordinators :

- 1. Visalakshi (7708728819)
- 2. Abhiram (9620381629)
- 3. Sparsh Goyal (9871580985)