



**2 day workshop on
AN INSIGHT INTO
ANALYTICAL INSTRUMENTS FOR RESEARCH –
special call – SC/ST candidates
24,25 January 2019**

**DAY-1
24th January 2019
(Thursday)**

9:00 am Reporting and Registration

09:15– 10:00 Welcome and Self Introduction

Introduction to the Institute, Overview of the programme,

TEA BREAK 10:00 to 10:15

10:15– 10:45 An introduction to materials, properties and the need for characterization

10:45 – 11:00 Discussion on queries raised by the participants

11:00 – 11:30 Analytical characterization techniques (chromatography, spectroscopy)

11:30 – 11:45 Discussion on queries raised by participants

11:45 – 12:25 *Demonstration* : Mechanical testing

LUNCH BREAK 12:30 to 1:30

1:30 – 2:00 *Lab Visit*: Micro CT Imaging , Thermocycler

2:00 – 2:30 Chemical characterization for materials: Why and how?

2:30– 2:45 Discussion on queries raised by participants

2:45 – 3:10 Profilometry for morphology analysis

TEA BREAK 3:10 – 3:25

3:25– 4:00 *Demonstration* :Profilometry

4:00 – 4:30 *Lab Visit* : Hardness Testing and X Ray Diffraction analysis

DAY 2 25th January 2019 (Friday)
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09:15-9:45 Microscopy for material characterization

9:45 – 10:00 Discussion

TEA BREAK 10:00 to 10:15

10:15 – 10:45 Mechanical testing of materials

10:45-11:15 Lab Visit : Transmission Electron microscopy

11:15 -11:45 Demonstration : Scanning Electron Microscopy

11:45 – 12:15 Lab Visit : DSC, TGA, FTIR, GPC, HPLC

LUNCH BREAK 12:15 to 1:15

1:15 – 2:15 Group activity on physicochemical properties and characterisation

2:15 – 2:45 Demonstration : Confocal Raman spectroscopy, Texture analysis

TEA BREAK 2:45-3:00

3:00 – 4:00 Quiz on Physicochemical characterization of materials

4:00 – 4:30 Feedback and certificate distribution