



ISO-9001:2008

How to apply

Interested participants may send their application in the prescribed format which is available on the website www.circot.res.in. The fee in the form of DD drawn/ at par Cheque in favour of "Director, CIRCOT" payable at Mumbai, may be sent to the below mentioned address so as to reach us on or before **10th January, 2018**. The Bank account details for NEFT transfer is given below:

Account Name	Director, ICAR-CIRCOT
Bank Name	State Bank of India, Commercial Branch, Dadar East, Mumbai – 400014
Account No.	10001710244
IFSC Code	SBIN0004114

How to Reach CIRCOT

- From Airport (Domestic) : 10 km
- From Airport (International) : 12 km
- Nearest Railway Station : Dadar (1.7 km)
- Nearest Bus Stop : Kapol Nivas on Dr. B.R. Ambedkar Road, Matunga (E), and Five Gardens Bus Stop
- Land Mark : Five Gardens, Matunga

Organizers

- Course Director : Dr. P. G. Patil, Director, ICAR-CIRCOT
- Course Coordinator : Dr. N. Vigneshwaran Sr. Scientist, CBPD
- : Mr. G. B. Hadge, ACTO, TTD
- : Dr. M. V. Vivekanandan, ACTO, TTD
- : Dr. N. M. Ashtaputre, ACTO, CBPD

Address for correspondence

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 022-24127273/76 Ext- 467
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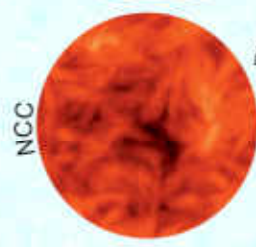
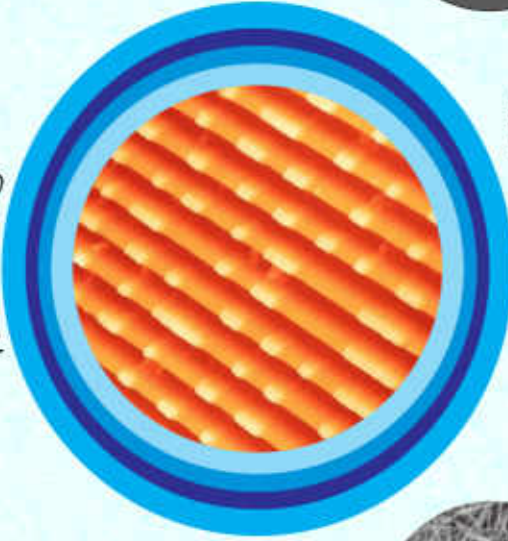
Inspire..

Imagine..

Invent..

Training on Advances in Microscopy

Recorded CD



NCC



Nano Filter



Nanocellulose



Cotton fibre



S of Cotton Fibre



Core Sheath Nano Yarn

January 17-19, 2018

Organized by

ICAR-Central Institute for Research on Cotton Technology (ICAR-CIRCOT)
 D.A.R.E., Ministry of Agriculture & Farmers Welfare, Govt. of India
 Adenwala Road, Matunga, Mumbai 400019 (MS) INDIA



Introduction

The ICAR-Central Institute for Research on Cotton Technology (ICAR-CIRCOT), one of the premier constituent institutes of the Indian Council of Agricultural Research (ICAR), was established in the year 1924. The Institute is conducting research and development on all aspects of post-harvest technology of cotton and value addition to cotton by-produce with following mandate:

- Basic and strategic research on processing cotton and its ago-residues, development of value added products and quality assessment
- Skill development and business incubation services and function as referral laboratory for cotton fibres.

The Institute has been conducting skill development programmes to propagate, encourage and guide entrepreneurs to successfully adopt and market commercially viable technologies and to equip people with best practices in cotton ginning, quality evaluation of cotton fibres and value addition to by-products.

About the training programme

Polarised Light Microscope is useful for analyzing samples with optical anisotropy and finds its use in diverse fields of Material Science including Fibre Science and nanotechnology. Scanning Electron Microscope (SEM) is used for research activities related to fine structure and morphology of fibrous materials including natural fibres and fibre composites. SEM is very useful in the physical characterization of nanomaterials and composites. Atomic Force Microscope (AFM), also called as Scanning Force Microscope uses the force of interaction between probe and sample for imaging with a resolution of atomic scale. Mechanical properties like elastic modulus, stiffness and force of adhesion could also be analyzed using AFM. The fluorescence microscope is used to observe fluorescent dyes in textiles, fluorescent labeled biological systems and other fluorescent materials. Advanced knowledge on microscopy is very useful for researchers and students. This training module on 'Advances in Microscopy' is designed to impart advanced knowledge in all aspects of the microscopy.

Objectives

To acquaint participant with recent advances in the field of light microscopy, electron microscopy and atomic force microscopy

To impart hands-on training on sample preparation techniques used in LM, SEM and AFM and operation of different types of microscope

To demonstrate the application of Light Microscopy, Scanning Electron Microscopy and Atomic Force Microscopy in Textiles, Nano materials, Composites, Chemical and Polymer industry, Biological sciences etc.

Course content

Light Microscopy

- Introduction to light microscopy
- Polarized light microscopy and its application
- fluorescent light microscopy and its application
- Application of light microscope in textiles

Scanning Electron Microscopy

- Principle and operation
- Methods of scanning
- Applications of SEM in different fields

Atomic Force Microscopy

- Basics of AFM
- Sample preparation for AFM
- Different Imaging modes
- Mechanical properties by AFM



Scanning Electron Microscope (SEM)



Atomic Force Microscope (AFM)

Facilities Available

- Polarized light microscope
- Fluorescent light microscope
- Scanning Electron Microscope (SEM)
- Atomic Force Microscope (AFM)

Date and Venue

January 17-19, 2018 at ICAR-Central Institute for Research on Cotton Technology (ICAR-CIRCOT), Adenwala Road, Matunga (East), Near Five Gardens, Mumbai 400019.

Accommodation

Guest house accommodation at ICAR-CIRCOT is limited and shall be provided at standard rate on first-come-first-serve basis in sharing basis (A/c) accommodation.

Fees

The programme fee is **Rs. 15,000 + service tax (as applicable) per person**. The charges include course fee, course material, breakfast and working lunch. The fee does not include travel, lodging and conveyance and other personal expenses there is 50% fee concession for students, academicians and participants from NARS.