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 processing 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

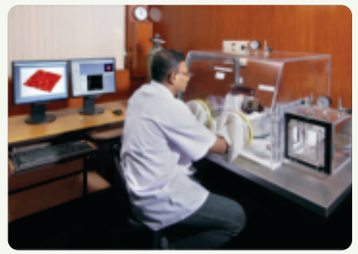
Nanotechnology deals with the manipulation of atoms, molecules, or molecular clusters to create functional materials and devices with enhanced & desirable properties. The first use of the concept of 'nanotechnology' was in "There's Plenty of Room at the Bottom", a talk given by physicist Richard Feynman. Nanotechnology, no longer remain a theoretical science rather it has gained the status of applied science being used in multidisciplinary field. Agriculture and Food Production are no exception to it. This has realized the potential of nanotechnology in each stage starting from crop production to consumption. In India, Department of Science and Technology (DST) has initiated the Nano-Mission to foster the research activities in this field. Indian Council of Agricultural Research (ICAR) in collaboration with state agricultural universities has initiated Consortium Research Project (CRP) on Nanotechnology to boost the research in the field of nanotechnology and its application in agriculture. ICAR-CIRCOT, has done pioneering work in the field of nanotechnology and has developed a decade of experience and expertise in synthesis & characterization of nanomaterials and its application in textile finishing development of nanocomposites etc. In 2015, ICAR-CIRCOT has established India's First Nanocellulose Pilot Plant. With this background, advanced trainings are being arranged to share the knowledge with diverse stakeholders. This training module on 'Advances in Applications of Nanotechnology' is 13th in the series, designed to impart basic and advanced knowledge of nanotechnology and its applications.

Objectives

- To acquaint participants with the Recent Advances in Nanotechnology
- To impart hands-on training on synthesis & characterization of nanomaterials
- To demonstrate the application of nanomaterials in textiles, composites, filtration, sensors and agriculture & allied sectors

Course content

- Basics & Advances in Nanotechnology
- Synthesis of Nanomaterials (Methods: Physical,
- Chemical, Mechanical & Biological)
- Characterization of Nanomaterials
- Application of Nanomaterials in Textiles
- Application of Nanomaterials in Composites
- Application of Nanomaterials in Agriculture
- Life cycle analysis of nanomaterials
- Nanotoxicology
- Business Incubation opportunities in Nanotechnology



Atomic Force Microscope

Starch Nanocellulose composite films for packing vegetables

Facilities Available

- High pressure homogenizer, Ball Mill
- Nanoparticle size analyzer (DLS)
- Atomic Force Microscope (AFM), Electrospinning
- X-Ray Diffraction (XRD), BET analyzer
- Scanning Electron Microscope (SEM)
- Fast protein liquid chromatograph, Ultracentrifuge
- Textile finishing & Characterization
- Composite making & Characterization

Membrane reactor for Enzymatic Preparation of Nanocellulose

Date & Venue

Septemer 24-28, 2018 at ICAR- Central Institute for Research on Cotton Technology (CIRCOT), Adenwala Road, Matunga (East), Near Five Gardens, Mumbai 400019.

Accommodation

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

Fees

The programme fee is Rs. 25,000 + 18% GST per person. The charges include course fee, course material, breakfast, tea and working lunch. The fee does not include travel, lodging and conveyance and other personal expenses. There is 50% concession for students, academicians and participants from NARS.

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 20th September, 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 Pr. Scientist,CBPD
: Dr. A. K. Bharimalla, Sr. Scientist, Head I/c, TDD
: Dr. C. Sundaramoorthy, Sr. Scientist, TTD
: Mr. A. Arputharaj, Scientist, QEID

Address for correspondance

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022-24127273/76 Ext- 467
Fax : 022-24130835 / 24157239

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Designed by : Miss. Aarti B. Ahire & Laxmi Manoj Singh YP-II,TTD

ICAR-CIRCOT Leaflet No. 185/2018

भाकृअनुप ICAR

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नैनोप्रौद्योगिकी के प्रगत अनुप्रयोग पर प्रशिक्षण

Training on Advances in Applications of Nanotechnology

September 24-28, 2018

Organized by

भा. कृ. अनु. प. - केंद्रीय कपास प्रौद्योगिकी अनुसंधान संस्थान

ICAR-Central Institute for Research on Cotton Technology (ICAR-CIRCOT)
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