## How to Apply

Interested participants can register through google forms (https://forms.gle/ApORDVYw9HOHrTDG7) Last date for registration is 12<sup>th</sup> Dec 2024. After confirmation from the organizer, the fee has to be paid to the below mentioned account by NEFT transfer.

#### The Bank account details for the NEFT transfer is given below:

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

# **How to reach CIRCOT**

Airport (Domestic) : 10 km : 12 km Airport (International) Nearest Railway Station (Dadar) : 1km

: Kapol Nivas, Dr. Ambedkar Rd, Matunga East Nearest Bus Stop

Landmark : Five Gardens

# Organizers

: Dr. S.K. Shukla, Director, ICAR-CIRCOT Programme Director

: Dr. N. Shanmugam, Head, MPD Course Director

: Dr. GTV Prabu, Senior Scientist, MPD Course Coordinators

Dr. N. Vigneshwaran, Principal Scientist, CBPD

Dr. T. Senthil Kumar, Senior Scientist, MPD

Dr. G. Krishna Prasad, Senior Scientist, MPD

## **Contact us**

#### Dr. GTV Prabu

Senior Scientist, MPD, ICAR-CIRCOT,

Adenwala Road, Matunga, Mumbai 400 019.

Mobile No: 9702524527

Website: www.circot.icar.gov.in

Email : geeteeveecircot@gmail.com







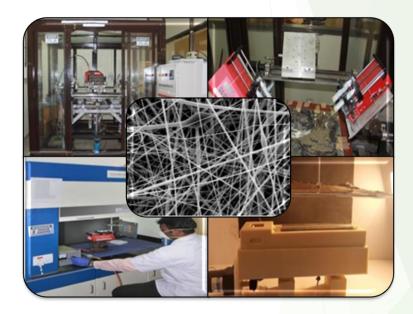








# TRAINING ON ELECTROSPINNING FOR NANOFIBRE PRODUCTION



December 18-20, 2024

Organized by

ICAR-Central Institute for Research on Cotton Technology

D.A.R.E., Ministry of Agriculture & Farmers Welfare, Govt. of India Adenwala Road, Matunga, Mumbai 400 019

#### **About the Institute**

ICAR-CIRCOT, established in 1924 in Matunga, Mumbai, has been continuously serving the nation for the past 100 years. The year 2024 marks our centenary celebration. The institute functions under the Division of Agricultural Engineering within the Indian Council of Agricultural Research, which is part of the Department of Agricultural Research and Education, Ministry of Agriculture and Farmers Welfare, Government of India. Institute is dedicated to research and the development of innovative technologies aimed at enhancing the utilization of cotton and its byproducts.

## **About the Training**

The global market for nano-scale and electrospun fibres has reached a valuation of 1 billion U.S. dollars. Electrospinning is a widely utilized method for producing ultrafine fibres from conducting polymers. In this process, a solution or melt of conducting polymer is exposed to a high voltage, which facilitates the formation of extremely fine fibres that are collected on a counter electrode. The quality of the final product is influenced by several parameters, including polymer concentration, solvent system, voltage, solution discharge rate, and the distance between the electrodes. The resulting electrospun nanofibers exhibit a high surface area to volume ratio and a porous structure, rendering them suitable for a diverse range of applications such as filtration, technical textiles, medical textiles, scaffolds, drug delivery systems, seed treatment with minimal chemicals, carriers for bio-fertilizers, nanosensors, and more.

## **Objectives**

- > To acquaint participants with the basic principles of electrospinning
- > To impart knowledge on the preparation and characterization of electrospun nanofibres
- > To demonstrate the various applications of electrospun nanofibres

#### **Course Contents**

- > Basic principles of electrospinning
- > Different configurations of electrospinning systems
- Optimization of electrospinning process parameters
- > Nanofibre characterization techniques
- > Applications of electrospraying on textiles, filtration, sensor and agriculture

## **Facilities Available**

- ➤ Multiphase electrospinning setup
- ➤ Needleless electrospinning setup
- > BETAnalyzer, SEM, AFM, FTIR, Raman spectroscope
- > Nanomaterials characterization facility
- Nanocellulose Pilot Plant

## Hands-on Training

- Hands on training on Multi-phase electrospinning machine
- > Electrospinning Process Optimization
- Characterization of Nanofibres (BET, SEM, AFM, etc.)

## Date & Venue

December 18-20, 2024 at ICAR- Central Institute for Research on Cotton Technology (CIRCOT), Adenwala Road, Matunga (East), Mumbai 400019.

#### Accommodation

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

#### Fees

The Programme fee is Rs. 10,000/- + 18% GST per person. The fee includes course fee, course material and working lunch. The fee does not include travel, lodging, conveyance and other personal expenses. There is 50% fee concession for academicians, students and participants from NARS, R&D organizations, Colleges and Universities. i.e., Rs. 5,000/-+18% GST per person.