

**Travel:** Greater Hyderabad is well connected by Air, Rail and Road with all parts of the country. Participants travelling by train should alight at Secunderabad or Hyderabad railway station. City transport service is available to reach the EEI.

**Buses from various places to Extension Education Institute**

Secunderabad Railway Station : 7/94H, 7/94R,  
7/95R, 5/92,  
Hyderabad Railway Station, Nampally : 92R,  
Kachiguda Railway Station : 2/94R,  
Mahatma Gandhi Bus Station (Imlibun) : 94R, 94H, 95A,  
(Reach Koti, Opp. Osmania Medical College gate by auto and catch bus) : 95P, 94/95R  
Rajiv Gandhi International Airport, : Taxi/RTC Bus/  
Shamshabad AeroExpress

**Land marks:**

*Extension bus stop located on the Rajendranagar road which is at a distance of 15 km. from Koti, 25 km from Secunderabad, 15 km from Nampally, 18 km from Kachiguda and 10 km from Rajiv Gandhi International Airport. The participants may also hire private taxi or cab or auto directly from the Railway Station. Drop Location for Private cabs or Taxis: Extension Education Institute, Rajendranagar road.*

*Participants are advised to make their return journey reservations at their end before leaving to Hyderabad.*

**Further Information can be obtained from**

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## TRAINING PROGRAMME ON Harnessing Nano Technology in Agriculture and Allied Sectors

**7<sup>th</sup> – 11<sup>th</sup> January, 2019 (5 days)**



**Course Coordinator**

**Dr. D. SHIREESHA**

**Asst. Professor, EEI, Hyderabad**



**EXTENSION EDUCATION INSTITUTE**  
(Southern Region)

**Dept. of Agriculture, Cooperation & Farmers Welfare,  
Ministry of Agriculture & Farmers Welfare, Govt. of India**

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## Back Ground

Nanotechnology is an interdisciplinary field that has been entered in different range of applied sciences such as chemists, physicists, biologists, medical doctors and engineers. Nanotechnology has been provisionally defined as relating to materials, systems and processes which operate at a scale of 100 nm or less. A nanometer is one billionth of a meter. Overall nano refers to a size scale between 1 and 100 nm. For comparison, the wavelength of visible light is between 400 and 700 nm. A leukocyte has the size of 10000 nm, a bacteria 1000-10000 nm, virus 75-100 nm, protein 5-50 nm, deoxyribonucleic acid (DNA) ~2 nm (width) and an atom ~0.1 nm. Nanotechnology considers the topics with viruses and other pathogens scale. So, has high potential for identify and eliminate pathogens.

Agriculture provides food for humans, directly and indirectly. As world population is increasing, it is necessary to use the modern technologies such as bio and nanotechnologies in agricultural sciences. Nanotechnology has been defined as relating to materials, systems and processes which operate at a scale of 100 nm or less. Nanotechnology has many applications in all stages of production, processing, storing, packaging and transport of agricultural products. Nanotechnology will revolutionize agriculture and food industry by innovation new techniques such as: Precision farming techniques, enhancing the ability of plants to absorb nutrients, more efficient and targeted use of inputs, disease detection and control diseases, withstand environmental pressures and effective systems for processing, storage and packaging.

An attempt has been made by Extension Education Institute (EEI) to organize a 5 day training programme to improve the knowledge and skill in the area of ' Harnessing Nano Technology in Agriculture and Allied Sectors' in the present scenario to review, analyse and evaluate the latest information regarding the application of Nano technology in Agriculture and Allied sectors under changing climatic scenarios

## Objectives of training:

1. To understand the latest applications and advances in Nano technology in agriculture and allied sectors
2. To harness the utility of Nano technology in agriculture and allied sectors

## Course contents:

Nano application in plant nutrition, Advances in weed management-nano technology, Nano applications in Animal Husbandary, Nano applications in Fisheries, Nano applications in forestry, Nano applications in poultry, Nano applications in Textiles and Handlooms, Gender mainstreaming, Time management skills, Interpersonal communication skills for professional excellence and field/institutional visits.

## Benefits :

1. Training on Application of Nanotechnology in Agriculture and Allied sectors will help in planning and implementation.
2. The training will provide comprehensive knowledge on Nano technology in animal husbandry, sericulture, forestry, fisheries and poultry sectors will help in identifying the available opportunities and challenges.
3. Training helps in gaining knowledge and skill on nano application in plant nutrition.

**Who can attend?** Officials from departments of Agriculture, Horticulture, Animal husbandry, Fisheries, Soil conservation and soil survey, Forestry and industries department of Andaman and Nicobar islands, Sericulture and allied sectors, all development professionals from client states of EEI, Assistant Professors / Scientists / KVK professionals / DAATT centre Professionals, personnel from Non Government Organisations and any others who want to build or improve their skills related to Nano technology.

**Duration:** 7<sup>th</sup>-11<sup>th</sup> January 2019 (both days inclusive). Participants are expected to arrive at least by 8 am on the morning of 7<sup>th</sup> January 2019 and can leave after 1600 hrs on 11<sup>th</sup> January 2019.

**Boarding and Lodging:** The programme is fully residential. Participants will be accommodated in the Hostels at EEI campus and will be provided free board and lodging. With regards to travel expenses, for all the client department officials as per their eligibility shall be met by EEI, Hyderabad except for officials from NGOs

**Pedagogy:** Various techniques and pedagogy are adopted in this course to help participants to feel the best touch of reality. The techniques like hands on experience, visit to institutions related to Nano technology, finally with interpersonal communication skills and time management for efficient job performance.