

## National Institute of Technology Trichy

The National Institute of Technology (formerly known as Regional Engineering College) Tiruchirappalli, situated in the heart of Tamil Nadu on the banks of river Cauvery, was started as a joint and co-operative venture of the Government of India and the Government of Tamil Nadu in 1964 with a view to catering to the needs of man-power in technology for the country. The college has been conferred with autonomy in financial and administrative matters to achieve rapid development. Because of this rich experience, this institution was granted Deemed University Status with the approval of the UGC/AICTE and Govt. of India in the year 2003 and renamed as National Institute of Technology.

The institution offers Under Graduate Courses in ten branches and Post Graduate Courses in twenty-one disciplines of Science, Engineering & Technology besides Ph.D. and M.S. (by research) in all the departments. The college is an example of cultural unity with students drawn from most of the states in the country. NITT is witnessing an exponential growth in R&D activities. Apart from a large consultancy work undertaken by our engineering departments, academic research gains its momentum day by day. Nearly 200 research scholars are undergoing their Ph.D. in various fields in all the departments. NITT has signed MOUs with industries and institutions in India and abroad to promote collaborative research and consultancies.

## Department of Mechanical Engineering

One among the first three departments to be established in 1964 in the institute, the Mechanical Engineering Department of NITT has had the reputation of being among the finest in the country and is dedicated towards the advancement of technology and science. Keeping itself up to date with the latest developments and trends in the field and with a dedicated faculty of highly qualified and experienced members in all streams of mechanical engineering, the department consistently strives to provide world-class facilities for education and research. An interactive relationship is maintained between the students and staff which enable the students to develop a sound foundation in the stream in a conducive environment. This is also reflected in our campus placement which has been 100% year after year with our students getting placed in the top industrial houses of the country.

The department has an excellent industrial interaction and contributes to the industry by offering consultancy services. Some of them are: Heavy Alloy Penetrator Project (HAPP), Oil and Natural Gas Corporation (ONGC), Indira Gandhi Centre for Atomic Research (IGCAR), Neyveli Lignite Corporation (NLC) and Bharat Heavy Electricals Limited (BHEL) and its ancillaries.

### Important Dates

**Last date for receiving applications: 25-11-2018**  
**Intimation of selection: Confirmation will be given when the application is received.**

**Mode of Intimation: Through Email only**

Self-supported course on

## Applications of Nanotechnology in Solar Systems

**26<sup>th</sup> November to 08<sup>th</sup> December 2018**

Coordinators

**Dr. S. Suresh**

**Dr. S. Venkatachalapathy**

**Dr. V. Mariappan**



Organized by

Department of Mechanical Engineering

National Institute of Technology  
Tiruchirappalli - 620 015, Tamil Nadu

Self-supported Course on

## **Applications of Nanotechnology in Solar systems**

26<sup>th</sup> November to 08<sup>th</sup> December 2018



### **SCOPE AND OBJECTIVE**

Nanotechnology is an emerging field in engineering and finds many applications in the core engineering discipline of Mechanical Engineering. This workshop aims at imparting the scientific and research-oriented knowledge of nanotechnology and its applications. This course will cover the synthesis of nanomaterials, nanofluids, nanocomposite, nanocoating and their various applications in the areas of heat transfer, refrigeration and space. A lot of indigenous technology being developed by our nation and lot to be developed, this workshop will have a real impact among the researchers and student community. In addition to the demonstration by various companies on the latest developments in the field, it will also be very useful for faculty members to pursue their Ph.D. in nanotechnology and its applications.

### **COURSE CONTENT**

The course covers the following objectives, but not limited to:

- Fundamentals of energy systems with solar radiation
- Synthesis, characterisation and property study of nanomaterials
- Applications of nanomaterials in Solar collectors and PV panels
- Cooling of PV panels
- Thermo-electric power generation (TEG)
- Thermal energy storage with phase change materials
- Solar desalination
- Nanofluids for solar applications
- Nanostructured surfaces for heat transfer enhancement
- Nanomaterials in thermal management of electronic components with Instrumentation.

### **FACULTY**

Lectures will be delivered by resource persons from NITs and Research Centers.

### **TARGET AUDIENCE**

Faculty members from Technical Institutions, Research Scholars, PG Scholars, Professionals working in Industry and Government Organizations are eligible to attend the course.

### **REGISTRATON FEE**

Students: Rs. 2,000/- (PG & Research Scholars)  
Others: Rs. 4,000/- (Faculty & Industry Personnel)  
For hostel accommodation: Rs. 910/- for 13 days

### **REGISTRATION DETAILS**

The participants are requested to fill in the registration form and send it to the Workshop Coordinators along with the Demand Draft for applicable amount drawn in favour of “The Director, NIT Trichy”, payable at Trichy to reach us on or before 25.11.2018.

The participants are also requested to confirm their participation in the workshop by sending an e-mail to mail id [sureshsiva31tar@gmail.com](mailto:sureshsiva31tar@gmail.com) on or before 25.11.2018.

The participants will be provided working lunch. Accommodation will be arranged in the NITT Hostels on payment basis at a rate of Rs.70/- per day. The participant can have their breakfast and dinner at messes on payment basis. The participants can also avail guest house facility on payment basis, for single occupancy Rs.700 and double occupancy Rs.1200/- per day.

No TA/DA will be paid to the participants.

### **ADDRESS FOR CORRESPONDENCE**

**Dr. S. Suresh**

**Dr. S. Venkatachalapathy**

Department of Mechanical Engineering

National Institute of Technology

Tiruchirappalli - 620 015. Tamil Nadu

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**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI**  
**DEPARTMENT OF MECHANICAL ENGINEERING**

**REGISTRATION FORM**

Self-Supported Course on

**APPLICATIONS OF NANOTECHNOLOGY IN SOLAR SYSTEMS**

**26<sup>th</sup> November to 08<sup>th</sup> December 2018**

Name :  
Qualification :  
Designation :  
Gender (M / F) :  
Department :  
Organization :  
Mailing Address :

Phone :  
Email :  
Accommodation Required (Y/N) :

**Details of Registration Fee**

Amount :  
DD No. :  
Date :  
Bank Name & Place :

Signature of Applicant