National Institute of Technology, Tiruchirappalli
Department of Mechanical Engineering

2 - Week Workshop on

Recent Advances in Solar Energy Technologies for Sustainable Development

29th April to 11th May 2019

Coordinators:

Dr. K. R. Balasubramanian
Associate Professor
Dept. of Mechanical Engineering
Email: krbala@nitt.edu

Dr. S. P. Sivapirakasam
Professor & HoD
Dept. of Mechanical Engineering
Email: spshivam@nitt.edu

SCOPE AND OBJECTIVE

India needs a solar power capacity of 100 GW by 2022. To meet this target, it has to build-up the solar power capacity by 4 times than the existing one. As per 2015 Paris agreement on climate change, India has committed to cut down the greenhouse gas emissions. Adopting innovative solar solutions would help India to reduce its carbon footprint. Already a lot of research works are being undertaken nationally and internationally in solar energy applications in the area of photovoltaic, photothermal, solar desalination, solar refrigeration and cooling, daylighting and passive solar applications. This two-week workshop aims to impart scientific and research knowledge on the state of art techniques for designing and analysing the performance of sustainable solar energy systems. The workshop also helps the participants to familiarize the tools such as MATLAB, TRANSYS and SolTrace, which are used for computational and heat transfer analysis of solar energy conversion systems. This workshop will be useful to those who are planning to start the research work in this area.

COURSE CONTENT

- Advances in solar PV materials
- MPPT criteria for PV systems
- Modelling and simulation of PV systems using MATLAB
- Design aspects and performance improvement technique of solar thermal systems
- Nano technology in solar thermal systems
- Solar power plants: Design and analysis in TRANSYS
- Computational methods for modelling of solar thermal systems.
- Solar powered Electric Vehicle
- Thermal energy storage systems

For contacts:

Kottala Ravikumar, Ph: +91 88863 69167
Jaya Balaganesh, Ph: +91 99404 90427
Nanda Kumar, Ph: +91 97875 44998
Jinshah B S, Ph: +91 81299 60815

Click here for Registration

www.nitt.edu

About NITT

National Institute of Technology, Tiruchirappalli (NITT) is one among the premier Institutions of India and is well known for its high standards in teaching and research. The NITT is situated in the heart of TamilNadu 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 cater the needs of man-power in technology for the country. The NITT offers Under Graduate Courses in ten branches and Post Graduate Courses in twenty-one disciplines of Science, Engineering & Technology besides M.S. (by Research) and Ph.D. It has been declared as an Institute of National Importance by the Government of India under NIT Act. NITT retained its 1st position amongst its 31 counterparts in the country in the National Institutional Ranking Framework (NIRF) 2018 Ranking (Engineering) released by the Union Ministry of Human Resource Development and it also retained 11th position among all Engineering Institutions across India.

About Mechanical Department

The Department of Mechanical Engineering is one among the first three departments established in 1964. With a team of highly qualified faculty members, the department consistently strives to provide world class facilities for teaching and research. As a feather in its cap, the department has been ranked between 300 - 450 consecutively for the past three years in the QS world ranking which makes the department unique among all NIT's in the country. The department offers a program in Mechanical Engineering at B.Tech level, Thermal Power Engineering and Industrial Safety Engineering at the M.Tech level and M.S (by research) and Ph.D programme. The curriculum of the said programmes are formulated to cater the needs of the Industrial sectors and society. The department has many patents in its credit. The faculty members have expertise in a number of disciplines and engage in interdisciplinary research. In order to nurture collaborative and cutting-edge research activities, the state of art laboratories have been established in the department.

How to register:

For registration, the participants are requested to fill up the Google Form (*https://goo.gl/forms/HVjAmkQCBK0g6lid2*) and also to send the hard copy of filled up registration form along with DD to the course coordinators. Demand Draft for applicable amount should be drawn in favour of "The Director, NIT Trichy", payable at Trichy. Upon Successful registration, a confirmation mail will be sent to the participants mail id along with a reference number. The participants will be provided with working lunch.

Accommodation:

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.

Important Notes:

Last date for application: **26.04.2019**

Max. number of seats: **60**

Mode of selection: **First come First Served Basis**

Mode of Intimation: **Through Email only**

Registration fees (Inclusive of taxes):

Industry Person : ₹8260

Academic (Faculty) : ₹ 5900

Students/ Full time Research Scholars } ₹3540

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Name :_____

Gender : **Male** ☐ **Female** ☐

Category : **Student / Fulltime Research scholar** ☐

Academic (Faculty) ☐

Industry person ☐

Official Address :_____

_____

Email id:_____ **Mobile No:**_____

Accomodation Required: **Yes** ☐ **No** ☐

Payment details

Amount:_____

DD Number:_____ **DD Date:**_____

Bank Name & Branch:_____

Signature of the Applicant:
(with date)