

## ABOUT NIT TRICHY



National Institute of Technology (formerly known as Regional Engineering College) Tiruchirappalli, is one among the premier Institutions of India and is well known for its high standards in teaching and research. It offers 10 undergraduate and 23 postgraduate programs in disciplines spanning engineering, science, architecture and management. It has been declared as an Institute of National Importance by the Government of India under NIT Act. According to the Ministry of Human Resources Development, NIRF 2017, NIT Trichy has been ranked as the 1<sup>st</sup> NIT among all the NITs and 10<sup>th</sup> among all the technical institutes in India. The Institute has signed MoUs with various Industries and Institutions both in India as well as in abroad to promote collaborative research and consultancy.

## ABOUT THE DEPARTMENT

The Department of Electronics and Communication Engineering established in the year 1968. The vision of the department is to excel in education and research in Electronics and Communication Engineering. The Department of Electronics and Communication Engineering with its cohesive team of faculty members, offers a sound program for B.Tech., M.Tech., M.S. and Ph.D. The curriculum is updated regularly to keep up with the growing demands and the changing trends of the industry and research laboratories. Government of India has recognized this Department as a Centre for Quality Improvement Programme in PG and Ph.D. courses.

## OBJECTIVE OF THE COURSE

Recent years, many potential applications demand for compact and portable optical fiber and photonic waveguide based devices with high reliability and stable power handling capacity. The objective of this course is to impart theory and modelling of optical fibers and photonic devices for communication, sensing, and industrial applications using optical CAD tools.

## RESOURCE PERSONS

The resource persons are from NIT, Trichy and Industry.

## COURSE CONTENT

The following topics will be discussed in this course.

1. Fiber optics & propagation characteristics
2. Theory of Optical waveguides and Photonic Integrated Circuits
3. Speciality optical fibers
4. Modelling of Photonic crystal fibers
5. Analysis of Dispersion characteristics using MATLAB
6. Analysis of optical fiber communication systems using Optsim
7. Modelling of Special fibers for industrial, sensing and communication applications
8. COMSOL based modelling of fiber optic and photonic devices
9. Design and analysis of metamaterial optical antennas using HFSS/CST
10. Research problems and discussion

## TARGET AUDIENCE

**Faculty members, research scholars and UG/PG students from reputed academic and technical institutions.**

## REGISTRATION FORM

### FIVE DAYS SHORT TERM COURSE ON

### CAD BASED MODELLING OF OPTICAL FIBERS AND PHOTONIC DEVICES FOR COMMUNICATION, SENSING, AND INDUSTRIAL APPLICATIONS (Self Sponsored)

10<sup>th</sup> June – 14<sup>th</sup> June, 2019

Name:  
Qualification:  
Designation:  
Organization:  
Official Address:

Mobile:  
E-mail:  
DD No. / Cheque No.:  
Dated:  
Bank & Branch:

Signature:

Date:

H.o.D/ Principal Signature  
(With Seal)

## REGISTRATION

**Registration Fee: Rs.1180/-** (Rs.1000 + 18% GST extra) **per participant.**

The DD for **Rs.1180/-** should be taken in favour of “**The Director, NIT, Tiruchirappalli**” payable at Tiruchirappalli.

The registration fee includes workshop kit, lunch and refreshment for all days.

## TRAVEL & ACCOMMODATION

The participants are requested to make their own arrangement for accommodation & travel.

## IMPORTANT DATES

Complete Registration form along with the scanned DD copy should be **emailed** to the coordinator on or before **4<sup>th</sup> June, 2019**

### Note:

- i) DD can be submitted at the time of course registration.
- ii) ~~Spot registration is also allowed.~~

## ADDRESS FOR CORRESPONDENCE:

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Course Coordinator  
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Mobile: 9443485798

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Organized by

**Department of Electronics and  
Communication Engineering,  
National Institute of Technology,  
Tiruchirappalli,  
Tamil Nadu – 620015**

## COURSE COORDINATORS

**Dr. G. Thavasi Raja**

**Dr. N. Gunavathi**

**Dr. D. Sriram Kumar**