



राष्ट्रीय तकनीकी शिक्षक प्रशिक्षण एवं अनुसंधान संस्थान  
[मानव संसाधन विकास मंत्रालय, भारत सरकार द्वारा स्थापित]  
सेक्टर 26, चंडीगढ़-160 019

**NATIONAL INSTITUTE OF TECHNICAL TEACHERS' TRAINING  
AND RESEARCH**

(Established by Ministry of Human Resource Development, Govt. of India)

**SECTOR 26, CHANDIGARH-160 019 (INDIA)**

(ISO 9001:2015 Certified)

अनुप्रयुक्त विज्ञान विभाग  
Department of  
Applied Science

संदर्भ : एनआईटीटीआर/अ.वि./  
Ref : NITTTR/App.Sc./BCC/AS-4/

दिनांक :  
Date : 17.06.2019

विषय: 15-19 जुलाई, 2019 तक नाइटर, चण्डीगढ़ में "Trends in fiber Optics Technology" पर  
अल्पकालीन पाठ्यक्रम संबंधी (O.Plan: AS-4)।

महोदय/महोदया,

इस संस्थान का अनुप्रयुक्त विज्ञान विभाग, राष्ट्रीय स्तर के इंजीनियरी कॉलेजों के अनुप्रयुक्त विज्ञान तथा इंजीनियरी (जिनकी पृष्ठभूमि विज्ञान है) के शिक्षकों के लिए उपर्युक्त अल्पकालीन पाठ्यक्रम आयोजित कर रहा है। फाइबर ऑप्टिक टेक्नोलॉजी ने आधुनिक संचार उद्योग में एक विशेष स्थान हासिल किया है। चूंकि ऑप्टिकल तरंग बड़ी मात्रा में जानकारी को समायोजित कर सकती है क्योंकि सिस्टम की एक बड़ी क्षमता है। इसके अलावा, वेवगाइड संरचना में कोई भी परिवर्तन प्रकाश के गुणों को इसके माध्यम से फैलता है और इसका उपयोग माइक्रो बदलावों को समझने के लिए भी किया जा सकता है। पाठ्यक्रम प्रतिभागियों को संचार, संवेदन और दवाओं के क्षेत्र में प्रौद्योगिकी विकल्पों को सीखने और उनकी सराहना करने का अवसर प्रदान करने का प्रयास करता है। शिक्षा और प्रौद्योगिकी में प्रगति के साथ तालमेल रखने के लिए मुझे दृढ़ता से लगता है कि हमारे सभी शिक्षकों को इस तरह के तकनीकी विकास के लिए सामने आना चाहिए।

मैं अति आभारी हूंगा यदि आप अपने संस्थान के अनुप्रयुक्त विज्ञान तथा इंजीनियरी के शिक्षकों में संलग्न विवणिका परिचालित कर दें तथा इस एक सप्ताह के प्रशिक्षण कार्यक्रम में अधिक से अधिक शिक्षकों को भाग लेने के लिए भेजें। आवेदन प्राप्त करने की अंतिम तिथि 8 जुलाई, 2019 है।

अधिक विवरण और ऑनलाइन पंजीकरण के लिए, कृपया हमारे संस्थान की वेबसाइट [www.nitttrchd.ac.in](http://www.nitttrchd.ac.in) देखें।

सधन्यवाद,

/  
(डा० बी.सी. चौधरी)  
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E-mail: bakhshish@yahoo.com

संलग्नक: उपर्युक्त।

NO PAYMENT/HONORARIUM IN CASH WOULD BE MADE TO ANY PARTICIPANT FOR ANY UNAVAILABLE FACILITY OF BOARDING AND LODGING.

#### 4. Facilities

The institute is located in the educational complex in Sector 26 and the buildings include Main academic block, Computer centre, Educational television centre, Academic block, Administrative block and Library, besides Trainees hostel, post-graduate hostel, student centre, institute guest house etc. The institute library has a collection of more than 35,000 books, journals, e-journals and other reading materials. The departments have well established laboratories and testing equipment in the areas of Physics, Lasers, Fiber Optics, Nanoscience and Nanotechnology.

#### 5. How to Reach the Institute

NITTTR (Formerly TTTI), Chandigarh is located in institutional complex of sector 26 on Madhya Marg (Landmarks- Institute for Blinds, Homeopathy Medical College and Hospital, SGGGS College, CCET etc.) and is about 5 km from both ISBT and Railway Station. Auto rickshaw/Taxi are readily available at both the place.

**LAST DATE FOR RECEIPT OF SPONSORED APPLICATIONS IS 8<sup>th</sup> JULY 2019.**

**Note:** Applicants are requested to check our website [www.nitttrchd.ac.in](http://www.nitttrchd.ac.in) for online registration.

#### Mailing Address:

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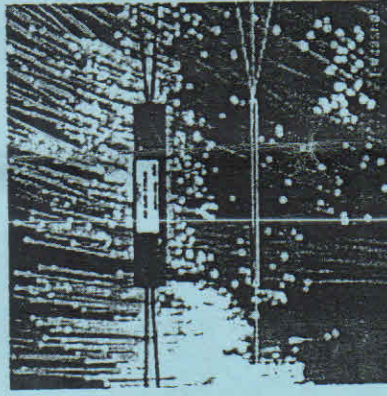
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Short Term Course on

## Trends in Fiber Optics Technology

15- 19 July 2019

(Teachers of Engineering Colleges)



Venue:

NITTTR, Chandigarh

Organized by:

Department of Applied Science  
National Institute of Technical Teachers'  
Training & Research (NITTTR)  
Sector 26, Chandigarh-160 019.

## OBJECTIVES

Communication based on fiber optics technology have become major information carrying systems with high-capacity optical fiber links encircling the globe. A fiber acts as a waveguide to transmit information from one place to another and the information carrier is an optical wave. Since an optical wave can accommodate large amount of information, the system has a great potential. Further, any change in the waveguide structure alters the properties of the light propagating through it and hence guide can be used for sensing even micro changes.

The course endeavors to provide an opportunity to the participants to learn and appreciate the technology options and latest developments in the field of Fiber Optics. Special emphasis will be on practical aspects of fiber characterization, measurements, testing and potential applications.

## CONTENTS

- **Optical Transmission;** Need and developments
- **Optical Fibers:** Waveguiding fundamentals and Types;
- **Optical Sources and Detectors:** Types & compatibility;
- **Optical fiber Links:** Design, Analysis and Multiplexing;
- **Fiber Optic Sensors:** Concepts and Configuration;
- **Free Space Optics and Visible Light Communication.**
- **OFC Testing:** OTDR and Link Analysis;

## ELIGIBILITY

Technical Staff and faculty in Applied Physics, Electronics, Electrical, Instrumentation and Computer Engineering.

## GENERAL INFORMATION & GUIDELINES

### 1. Admission to the Training Programme:

Admission is open to teachers and technical officers of engineering colleges: Government, Govt-aided, private and self-financing institutions. Interested candidates may submit their applications in the prescribed performa (specimen attached) through proper channel so as to reach the institute before **8<sup>th</sup> July 2019**. Advance copy may be sent, but at the time of admission sponsorship from the appropriate authority must be produced.

### 2. Course Fee

No course fee for participants from technical institutions; Govt./Aided/Private/UIETs provided they should be duly approved by AICTE/MHRD. Fee of Rs. 5000/- + GST @ 18% (Total Rs. 5900/-) will be charged from participants from ECs/Instts. covered under TEQIP projects or from industry as DD in favor of Director, NITTTR Chandigarh or cash at the institute counter.

### 3. Payment of TA/DA

#### A) Govt./Govt.-aided Colleges:

TA/DA of the participants from these institutions will be borne by NITTTR, Chandigarh as per institute rules. Any participant who without the approval of the competent authority, discontinues the programme at any stage, will forfeit the claim on TA/DA.

i) For reimbursement of TA, the participants of the courses, which are conducted at Chandigarh or at the state headquarters, would be limited to 2<sup>nd</sup> AC for Professors/Principals/Directors, for others 3<sup>rd</sup> AC/ AC chair car or the entitled class or actual, whichever is the least. The claimants will have to produce tickets in support of their claim for TA.

ii) Local mileage would be restricted to Rs.200/- at all places in general or reimbursement of actual expenditure on submission of genuine printed bills as per institute rules. Local participants shall be reimbursed Rs. 100/- per day on account of local conveyance.

#### B) Institutes/ECs covered under TEQIP Projects:

Participants from institutes/ECs covered under TEQIP projects even if they are sponsored by state governments will have to bear TA/DA and boarding-lodging expenses through their sponsoring organization.

C) **Boarding & Lodging:** All outside participants (excluding those from TEQIP covered institutes) would be provided free boarding and lodging in the institute mess/hostels. **For this claim stay in the hostel is compulsory.** The local participants for training programme at Chandigarh would be eligible only for the working lunch and tea at the institute on the working days of the training.

## APPLICATION FORM

Short Term Course on

# Trends in Fiber Optics Technology

(15- 19 July 2019)

(For Engineering College Teachers)

1. Name (in BLOCK Letters): \_\_\_\_\_
2. Educational Qualification(s): \_\_\_\_\_
3. Designation & Deptt.: \_\_\_\_\_
4. Office Address: \_\_\_\_\_
5. Whether the Institute is  
Govt.  Private/Self-financing   
Govt. Aided  TEQIP Project
6. Whether AICTE approved: Yes  No
7. Address for correspondence: (if different from official Address) \_\_\_\_\_  
Phone: \_\_\_\_\_
8. Years of Experience (if any): \_\_\_\_\_
9. Hostel accommodation required - Yes / No
10. Signature of the Applicant \_\_\_\_\_ Place: \_\_\_\_\_  
Date: \_\_\_\_\_

Signature of the Sponsoring Authority  
(with official seal)