

About Punjabi University, Patiala

Punjab Assembly established Punjabi University, Patiala under the Punjab Act No. 35 of 1961. Dr S. Radhakrishnan, the then President of India laid foundation of Punjabi University on June 24, 1962. Over the time since its inception, the University has evolved into a multifaceted and faculty educational institution for the promotion of higher education and research in Humanities, Arts, Sciences, Engineering, Languages, Technology and many more. Spread over 600 acres of land, its more than 1500 faculty members are imparting instruction and guidance to nearly 14,000 students in as many as 70 Teaching and Research Departments, 27 Regional Centre/Neighbourhood Campuses/Constituent Colleges and 278 Colleges affiliated to it. Ensuring quality education has been on top of the agenda of this University. The National Assessment and Accreditation Council (NAAC) has awarded the University 'Five Star' grade in the first cycle (2002-07) and 'A' grade in the second (2008-13) and the third (2016-23) cycles.

About the Department

The department of Basic and Applied Sciences has been established in 2013. The department offers foundation courses in Physics, Chemistry, Mathematics, Communicative English, Punjabi and Management to Engineering students. The theoretical aspects of different subjects are supported by well-equipped labs in Physics and Chemistry for imparting practical skills. Recently, a digital language lab has been established in the department to inculcate soft skills in the students. There are 26 faculty members in the department and all are

actively involved in research work in their respective fields of specialization. Presently faculty members of the department are guiding more than 40 Ph. D students. Recently, our department has started Five Year Integrated M.Sc. Program in Physics (Honours School System).

About NITTTR, CHANDIGARH

The Ministry of Human Resource Development (the then Ministry of Education), Government of India established four Regional Technical Teachers' Training Institutes (now National Institute of Technical Teachers Training & Research (NITTTR) at Bhopal, Chandigarh, Chennai and Kolkata in 1967. The Institute at Chandigarh is one of these four NITTTRs, started in collaboration with Royal Netherlands Government (upto 1974). It was developed to meet the requirements of developing polytechnic education in the northern region. The present role of this institute is for the development and quality improvement of Technical Education (Polytechnics & ECs) of the country particularly in the northern region. The institute provides a spectrum of activities which include Education and Training Programmes, Curriculum Development, Instructional Material Development, Research and Development, Extension Services, Consultancy in Technical Education and Technology areas. The institute offers Long term programmes (ME and Ph.D.) in addition to short term courses in the areas of Civil, Electrical, Mechanical, Electronics and Computer Science Engineering. All these programmes, being offered for teachers of technical institutions and their administrators, professionals from industry and general candidates, are duly approved by AICTE and affiliated to Panjab University, Chandigarh. The vision of the organization is to be a lead resource institute for promoting excellence in Technical Education.

SHORT TERM COURSE ON SMART MATERIALS & NANOTECHNOLOGY

DECEMBER 02-06, 2019

Organized by

Department of Basic and Applied Sciences
Punjabi University, Patiala

in collaboration with

National Institute of Technical Teacher's Training and
Research (NITTTR), Chandigarh.



Convener: Dr Rakesh Kumar

Course Co-ordinator: Dr. B. C. Choudhary

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STC Overview

This Short Term Course in Smart Materials and Nanotechnology will cover majorly the basic and advanced concepts related to both smart materials and nanomaterials. Nanomaterials exhibit novel characteristics compared to the same material without nanoscale features such as increased strength and chemical reactivity. They show unique optical, electronic and mechanical properties. Smart materials have one or more properties that can be significantly changed in a controlled style as stress, temperature, magnetic fields etc. The lectures of the experts will cover the aspects of both nanomaterials and smart materials.

Topics to be covered

- ◆ Smart Materials and Systems
- ◆ Carbon based Nanomaterials & Applications
- ◆ Synthesis and Characterization of Nanomaterials
- ◆ Advanced Electronic and Magnetic Materials
- ◆ Advanced Ceramic, Composite and Polymeric Materials
- ◆ Modelling and Simulations of Devices and Systems
- ◆ Advanced materials for Medicine/Healthcare
- ◆ Materials for Green Energy and Environment

Target Audience

This STC has been designed for faculty members from technical institutions approved by AICTE.

Accommodation

Limited accommodation is available in the Guest House/Waris Bhawan of Punjabi University for outstation participants with an advance request. Shared accommodation will be provided on first come first serve basis.

Registration

There will be no Registration fee for the participants. However, the registration will be on first come first basis as the number of seats is limited to 40. Last date of registration is **25th November, 2019**. Course material, certificate, working lunch and tea will be provided by the Organizers. No TA/DA is permissible to the participants.

Online Registration for STC

For online Registration, click the following link

<https://docs.google.com/forms/d/1iRliBseyNbqrvbm8iwL92X-Pk7GI-73OrEcfGsD41jQ/edit>

Online Registration for Certificates

Certificates for the STC will be issued by NITTTR Chandigarh. For getting certificates, online registration on NITTTR website www.nitttrchd.ac.in is mandatory. Applicants should visit this website and follow the instructions for online registration. A convenience fee of Rs. 100/- is applicable for registration which will remain valid for the full academic year.