

KURUKSHETRA

Kurukshetra is popularly known for its historical and religious importance. Here, the battle of Mahabharata was fought and Lord Shree Krishna delivered the divine message as enshrined in the holy book “Shrimad Bhagwad Gita”. It is also known as DHARAMKSHETRA and it attracts devotees from all corners of world all-round the year. Kurukshetra is very well connected by Rail, Delhi-Ambala section by road (NH1, connecting Delhi-Chandigarh-Amritsar-Jammu) and by Air (Delhi 160 km and Chandigarh 80km). The NIT Kurukshetra campus is situated about 10 km from Pipli, Bus stand located on NH1 and about 4km from Kurukshetra railway station.

NATIONAL INSTITUTE OF TECHNOLOGY KURUKSHETRA

NIT Kurukshetra, formerly known as Regional Engineering College, Kurukshetra was founded in 1963. It was conferred upon the NIT status, with Deemed University on June 26, 2002. The Institute offers several courses, in various disciplines of B.Tech., M.Tech., MBA and MCA and Ph.D. with an annual intake of about 1500 students. Institute also provides excellent facilities for advanced research in the emerging areas of Engineering, Science, and Technology. The institute has well qualified and dedicated faculty along with supporting staff, laboratories and other infrastructure. The infrastructure is geared to enable the institute to produce technical personnel of high quality.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING, NIT KURUKSHETRA

The branch of Electronics and Communication Engineering was started in the year 1971 under the aegis of Electrical Engineering Department. The “Department of Electronics and Communication Engineering” came into existence in the year 1973. In 1987, Computer Engineering branch was also started and the department was renamed as “Electronics, Communication and Computer Engineering”. In 2003, the department was again renamed as “Electronics and Communication Engineering” because of inception of “Computer Engineering Department” separately. The department started M.Tech. program in ECE and VLSI design in the year of 1987 and 2007, respectively. Presently, M.Tech. (VLSI Design) is being offered by the School of VLSI Design and Embedded Systems independently.

PATRON

Prof. B. V. Ramana Reddy
Director, NIT Kurukshetra

Co-PATRON

Prof. Karan Sharma
HOD, ECED

CONVENER

Dr. Shweta Meena
Assistant Professor, ECED
NIT Kurukshetra

COURSE COORDINATORS

Dr. Umesh Ghanekar
Professor, ECED
NIT Kurukshetra

Dr. Arvind Kumar
Associate Professor, ECED
NIT Kurukshetra

IMPORTANT DATES

- Last date for submission of filled Registration Form: **20th July, 2024**
- Confirmation to the participants (by email): on or before **21st July, 2024**

Address for Correspondence:

Dr. Shweta Meena
Coordinator, SMART-NANO-2024
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Kurukshetra-136119, Haryana, India
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Short-Term Course On

**Functional Hybrid Materials for Clean
Energy & Healthcare Applications**

(SMART-NANO-2024)

(22th July-26th July 2024)



Organized by

**Department of Electronics & Communication
Engineering National Institute of Technology
Kurukshetra**

Kurukshetra-136119, Haryana, India

Objective of STC

The short-term course entitled “Functional Hybrid Materials for Clean Energy & Healthcare Application” is planned to organize for students (undergraduates and graduates), research scholars, academicians & clinicians and faculty members from national and international institutes/laboratories. During this course, fundamental and applied approaches of functional hybrid materials will be discussed for relevant clean energy & healthcare technologies with their advantages and disadvantages. Moreover, the main focus of this course would be introducing the various concepts of bench to bedside, industrial importance, reliability and scalability with simulation and experimental view of functional hybrid materials. In addition, functional hybrid materials such as 2D nanosheets (MXene/Graphene), nanospheres (cellulose acetate, mesoporous silica), lipid assemblies (liposomes & LNPs), etc. will be discussed along their engineering and chemical approaches. Further, the surface modification and related clean energy applications like biofuels, bioenergy, ion-batteries, hydrogen storage, etc. and healthcare applications like bioimaging, biosensing, drug delivery, targeted therapeutics, etc. will be covered.

Topics to be covered

- 2D nanosheets & Biomaterials
- Functional hybrid materials & their engineering
- Biofuel and Bioenergy
- Bioimaging & Biosensing
- Ion-batteries & Hydrogen Storage
- Simulations & Bioinformatics
- Drug Delivery & Targeted Therapy

Resource Persons

The resource persons will be from National and International Institutes.

Who can attend?

Faculty members/ research scholars/ students from academic institutes approved by the AICTE/ UGC/ MHRD and Scientists/ Engineers working in Private/ Public/ Govt. organizations/ industries, clinicians etc. can attend the course. However, faculty members and research scholars engaged in Ph.D. will be greatly benefited. The application should be made on the registration form and should accompany registration fee as mentioned below:

| Participant's Category | Registration fee* |
|---------------------------------|-------------------|
| Students/Research Scholars | Rs.300/- |
| Faculty | Rs.500/- |
| Industry/R&D/Govt. Organization | Rs.1000/- |

***Registration fee is non-refundable.**

Registration fee includes course certificate.

The Registration fee is to be paid through SBI Collect. Please write the short name SMART NANO-2024 in remarks during online SBI Collect payment and save a copy of payment receipt.

How to Apply

Follow the below steps for payment through SBI Collect

1. www.onlinesbi.sbi/sbicollect/
2. Select Educational Institutions
3. Search for Educational Institutions – Director NIT Kurukshetra & Filter by State – Haryana
4. Payment Category – select SMART-NANO-2024
5. Fill the form.

Registration Deadline: 20th July, 2024

Note: The participants need to email (i) Proof of payment (receipt of SBI collect payment) and (ii) Signed copy of registration form by 21st July, 2024.

REGISTRATION FORM Short Term Course on

“Functional Hybrid Materials for Clean Energy & Healthcare Applications”

22th July to 26th July 2024

| |
|---|
| Title: (Dr./Mr./Mrs./Ms.): |
| Name (in BLOCK LETTER): |
| Qualification |
| Sex(M/F): |
| Date of Birth: (dd/mm/yyyy) |
| Designation: |
| Organization: |
| Address for correspondence: |
| Phone: |
| E-mail: |
| Category (Please Tick): Students/ Faculty/Industry/R&D /Govt. Organization |
| <u>Payment Details</u> |
| Transaction ID/Reference ID: |
| Date of Payment: |
| Amount: |
| Attachment(s) Fee Payment Receipt |
| Signature of applicant (with date): |

REGISTRATION FORM

Short Term Course

on

'Functional Hybrid Materials for Clean Energy & Healthcare Applications'

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| Name (in BLOCK LETTER): |
| Qualification |
| Sex(M/F): |
| Date of Birth: (dd/mm/yyyy) |
| Designation: |
| Organization: |
| Address for correspondence: |
| Phone: |
| E-mail: |
| Category (Please Tick): Students/ Faculty/Industry/R&D /Govt. Organization |
| <u>Payment Details</u> |
| Transaction ID/Reference ID: |
| Date of Payment: |
| Amount: |
| Attachment(s) Fee Payment Receipt |
| Signature of applicant (with date): |