



# TEQIP-3

Technical Education Quality Improvement Programme



## Research Scholars' Week: Applied Sciences and Humanities

One Week Online Short Term Training Program  
(September 23-27, 2020)

Organized by:

**National Institute of Technology Kurukshetra**

(Under TEQIP-III-Twinning System with Engineering College Bikaner)

### Patron

**Dr. Satish Kumar**  
(Director, NIT  
Kurukshetra)

### Co-Patron

**Dr. J. P. Bhamu**  
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GEC Bikaner)

### Conveners

**Prof. Sathans**  
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&

**Dr. O. P. Jakhar**  
(GEC Bikaner)

### Coordinators

**Prof. R.P. Chauhan**  
(NIT Kurukshetra)

&

**Dr. Praveen Purohit**  
(GEC Bikaner)

### ABOUT NIT 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.

The 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.



### ABOUT ENGINEERING COLLEGE BIKANER

Engineering College Bikaner is an autonomous institution of Govt. of Rajasthan., spread over 200 acres of land and located at Karni Industrial Area, Bikaner. The institution was established in the year 1999 and committed to provide quality education.

It has seven branches of Engineering at UG level viz. CSE, ECE, EICE, IT, ME, EE, CE. It also runs BBA, BCA, MCA, MBA and M.Sc courses and also offers M.Tech./Ph.D. in ME, EE, CSE and Sciences.



## ABOUT THE PROGRAM

This program is being organized in an online mode by NIT Kurukshetra with the resource persons being the distinguished Professors/Scientists from IISC, IITs, NITS and the reputed R&D organizations/Industry under TEQIP-III mentoring/twinning system with Engineering College, Bikaner, Rajasthan. The program is primarily focused on the research scholars, M.Tech./B.Tech. students and also the faculty members from the related domain of NIT Kurukshetra and Engineering College, Bikaner.

It is expected that the students and faculty members interested would get immensely benefited. The program has been so designed to provide the participants with the knowledge of advanced techniques in the field of applied sciences and humanities with the upcoming research trends.

## PROGRAM DELIVERABLES

The program aims to address the following topics and issues, but not limited to:

1. Basics of Research and Research Methodology
2. IPR, Copy Rights and Related Issues
3. Indices of Scientific Research
4. Futuristic Research Trends in Applied Sciences and Humanities
5. Advance Materials and their Applications
6. Smart and Nanostructured materials
7. Instrumentation for research in Applied Sciences.
8. Challenges in research related to industrial problems

## INVITATION TO PARTICIPANTS

The course is of inter-disciplinary nature and therefore, may be of interest to the students (Ph.D., M.Tech. & B.Tech.) and faculty members from the relevant departments such as Physics, Chemistry, Mathematics, Humanities, Materials Science, Instrumentation etc. All the interested students and faculty members are cordially invited to join the program. The expression of interest can be registered by filling the registration form with the **Google link** provided below.

## RESOURCE PERSONS

The resource persons are the distinguished Professors/Scientists from IISC, IITs, NITS and the reputed R&D organizations/Industry under TEQIP-III mentoring/twinning system with Engineering College, Bikaner, Rajasthan. The program is primarily focused on the research scholars, M.Tech./B.Tech. students and also the faculty members from the related domain of NIT Kurukshetra and Engineering College, Bikaner.

## ONLINE REGISTRATION LINK

<https://forms.gle/LAU38fVW2bg8SpC78>

## NO REGISTRATION FEE

## CONTACT PERSONS

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### Coordination Committee:

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## **Research Scholars' Week: Applied Sciences and Humanities** **Tentative Schedule (23-27 September 2020)**

S.N	Name & Address	Date(Time)/Topic	Photo
1.	Prof. S R Vadera Professor & Head, Department of Physics IIT Jodhpur Former Director DRDO Jodhpur	23 <sup>rd</sup> September (9.30 AM)  <b>“Role of Higher Educational Institutes in making India Atmanirbhar”</b>	
2.	Prof. A.K. Ganguly, Professor, Chemistry IIT Delhi	23 <sup>rd</sup> September (11.30 AM)  <b>"Doing research today: some thoughts and ideas"</b>	
3.	Dr. R.K. Kotnala Raja Ramanna Fellow, DAE Former Chief Scientist NPL, New Delhi	23 <sup>rd</sup> September (3.00 PM)  <b>“Hydrogen Economy Vs Water Splitting through Non-Photocatalytic Process for Hydrogen Production”</b>	
4.	Prof Neeraj Khare Professor Department of Physics IIT, Delhi	23 <sup>rd</sup> September (4.30 PM)  <b>“Nanotechnology for Societal Benefits”</b>	
5.	Prof. S.K. Tripathi, Professor, Department of Physics, Punjab University, Chandigarh	24 <sup>th</sup> September (9.30 AM)  <b>“Fabrication and Characterization of Nano crystalline Thin Films”</b>	
6.	Prof. A. Ramanan, Professor, Chemistry IIT Delhi	24 <sup>th</sup> September (11.00 AM)  <b>“Copper Materials - From ancient civilization to COVID times”</b>	
7.	Prof. P.G Siddheshwar, Professor, Bangalore University	24 <sup>th</sup> September (3.00 PM)  <b>“Integral Transforms and Applications”</b>	
8.	Prof. Chitralkha Mahanta, Department of Electrical Engg. IIT Gauhati	24 <sup>th</sup> September (4.30 PM)  <b>“Evolving Research Directions in Control System”</b>	
9.	Prof P.J.Philip Former professor of Humanities NIT Kurukshetra	25 <sup>th</sup> September (9.30 AM)  <b>“IPR, Copy Rights and Related Issues”</b>	
10.	Prof S.K.Chakarvarti Former professor of Physics NIT Kurukshetra	25 <sup>th</sup> September (11.00 AM)  <b>“Indices of Scientific Research”</b>	

11.	Dr. Sanjeev Kumar Professor Applied Sciences Department PEC, Chandigarh	25 <sup>th</sup> September (3.00 PM)  <b>“Materials: Diverse Applications”</b>	
12.	Dr. Anil Verma Professor Chemical Engineering IIT Delhi	25 <sup>th</sup> September (4.30 PM)  <b>"Flow Battery: Energy Storage Platform for EV Charging"</b>	
13.	Dr. Y. K. Sharma Associate Professor Indian Institute of Technology Roorke	26 <sup>th</sup> September (9.30)  <b>“Manufacturing Advanced Rechargeable Batteries: Challenges and Opportunities”</b>	
14.	Dr. Y. K. Sharma Associate Professor Indian Institute of Technology, Roorke	26 <sup>th</sup> September (11.30)  <b>“Lithium ion batteries” (Practical demonstration)</b>	
15.	Prof. JagadeeshKumar,V Professor Deptt. of Electrical Engineering IIT Madras	26 <sup>th</sup> September ( 3.00 PM)  <b>“Research, where when and how?”</b>	
16.	Prof Harish Narang Professor Deptt. of English JNU, New Delhi	26 <sup>th</sup> September (4.30 PM)  <b>“Creativity and Critiquing is an Ethical Activity”</b>	
17.	Prof. Sanjeev Aggarwal Professor Department of Physics KU Kurukshetra	27 <sup>h</sup> September (9.30 AM)  <b>“Use of Ion Beams for Materials Modification”</b>	
18.	Prof. Y.N. Reddy, Professor of Mathematics, NIT Warangal	27 <sup>h</sup> September (11.00 AM)  <b>“Scholars! What Next??”</b>	
19.	Prof. Ravi Kumar Professor, Materials Centre, NIT Hamirpur	27 <sup>th</sup> September (2.30 PM)  <b>"Transparent Conducting Oxide materials"</b>	
20.	Dr N. C. Shivaprakash Department of Inst. & Applied Physics, IISCBangalore, Karnataka	27 <sup>th</sup> September (4.00PM)  <b>"Recent trends in Science and Applied Science"</b>	