

GOVERNMENT OF TELANGANA  
DEPARTMENT OF TECHNICAL EDUCATION

OFFICE OF THE  
COMMISSIONER OF TECHNICAL EDUCATION  
TELANGANA :: HYDERABAD

Sub: TECHNICAL EDUCATION – Online Training Programs for faculty offered by National Institute of Technical Teachers' Training and Research (NITTTR), Kolkata - Reg.

Ref: Program Calendar of December-2020 to January-2021 Online Training Programs offered by NITTTR, Kolkata.

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With reference to the above cited, all the Principals of GPTs / Private, Aided / Private Unaided (including 2<sup>nd</sup> shift Polytechnics in Engineering colleges) are hereby informed that the National Institute of Technical Teachers' Training & Research (NITTTR), Kolkata is organizing Online Training Programs scheduled from 07.12.2020 to 05.02.2021.

In this connection, all the Principals of GPTs / Private, Aided / Private Unaided (including 2<sup>nd</sup> shift Polytechnics in Engineering colleges) are hereby informed to instruct the faculty to register online in NITTTR, Kolkata application form Link: <http://bit.do/NITTTRK-STTP-APPLICATION-FORM> and the same copy can be sent to this office to [adtrg.ts@gmail.com](mailto:adtrg.ts@gmail.com). The program completion certificate can be sent at the earliest to the same mail id after completion of the online course.

The receipt of this memo shall be acknowledged.  
(This has the approval of the CTE, Telangana)

Encl: As above

Signature Not Verified  
Digitally signed by AKUTI PULLAIAH  
Date: 2020.11.24 13:24:41 IST  
Reason: Approved

For COMMISSIONER

To  
The Principals of GPTs / Private, Aided / Private Unaided (including 2<sup>nd</sup> shift Polytechnics in engineering colleges)  
Copy to the Secretary, SBTET, T.S., Hyderabad.  
Copy to the Director, NITTTR, Kolkata.

NATIONAL INSTITUTE OF TECHNICAL TEACHERS' TRAINING & RESEARCH, KOLKATA

**List of ICT Mode STTPs for the Month of December, 2020 to June, 2021**

**Application Form Link: <http://bit.do/NITTRK-STTP-APPLICATION-FORM>**

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator	Date: From	Date: To	Duration (Week)	Target Participant / Group	Programme Objectives
1.	ICT205	Problem Based Learning	Arpan Kumar Mondal, Indrajit Saha, Sagarika Pal, Kinsuk Giri	07/12/2020	11/12/2020	1	Faculty of all disciplines	After attending the course the participants will be able to <ul style="list-style-type: none"> <li>• Explain the basic problem solving strategies in classroom</li> <li>• Identify specific problems covering a particular area of learning</li> <li>• Solve problems in various branches of Engineering through PBL</li> <li>• Analyse the benefits associated with PBL compared to conventional learning</li> </ul>
2.	ICT206	Research Methodology and its Data Analysis using SPSS	Chandan Chakraborty	07/12/2020	11/12/2020	1	Faculty of all disciplines	After completion of this course the participants will be competent enough to <ul style="list-style-type: none"> <li>• Develop understanding of the research process, research design, and techniques,</li> <li>• Explore about how to write systematic literature review with meta-analysis along with various authenticate web-resources,</li> <li>• Explain ethical issues involved specially in applied research,</li> <li>• Expose data analytics using statistics and hands-on-training with Excel/SPSS.</li> <li>• Prepare a research project thesis report and paper publishing.</li> </ul>
3.	ICT207	Application of MATLAB in Engineering	Prasanta Sarkar	07/12/2020	11/12/2020	1	Faculty and Technical Staff of all disciplines	After attending the programme, the participants will be able to <ul style="list-style-type: none"> <li>• Familiarise with MATLAB commands</li> <li>• Use MATLAB Commands</li> <li>• Develop MATLAB script and function files</li> <li>• Solve Engineering Problems using MATLAB</li> </ul>
4.	ICT208	NBA Accreditation	Rayapati Subbarao	07/12/2020	11/12/2020	1	Faculty of all disciplines	At the end of the programme, the participants will be to: <ul style="list-style-type: none"> <li>• Identify the Impact of NBA Accreditation</li> <li>• Prepare Vision, Mission, Program Educational Objectives</li> <li>• Prepare Outcomes and Program Outcomes</li> <li>• Learn how to prepare SAR.</li> <li>• Practice Criteria i to x</li> </ul>
5.	ICT209	Assessment and Evaluation of student's Performance	Samiran Mandal	07/12/2020	11/12/2020	1	Faculty members of Technical Institutions	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>• Explain assessment and evaluation</li> <li>• Develop different types of questions</li> <li>• Analyze items</li> <li>• Explain grading and scoring</li> </ul>
6.	ICT210	Essentials of HRM	Sukanta Kumar Naskar	07/12/2020	11/12/2020	1	Faculty of all disciplines	After attending the programme the participants will be able to: <ul style="list-style-type: none"> <li>• Explore the functions of HRM</li> <li>• Analyse the functions of HRM for applying respective</li> </ul>
7.	ICT211	Research Methodology	Urmila Kar	07/12/2020	11/12/2020	1	Faculty members from all technical institutes,	After attending the programme, participants will be able to: <ul style="list-style-type: none"> <li>• explain the basic principles of Scientific and Technical Research</li> <li>• elaborate the basic skills necessary for planning and carrying out research</li> <li>• identify different sources of information and effective utilization of the same.</li> <li>• identify ethical issues involved</li> <li>• formulate scientific and technical arguments from unstructured textual data.</li> <li>• prepare a scientific communication from given material</li> <li>• demonstrate skills in statistical analysis and presentation of data</li> </ul>

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8.	ICT212	Renewable Energy Sources and Emerging Technologies	Sheela Yadav Rai	07/12/2020	11/12/2020	1	All Discipline	After attending the programme the participants will be able to: <ul style="list-style-type: none"> <li>• Understand Energy Sources and their utilization</li> <li>• Explain Environmental aspects of electric energies generation</li> <li>• Understand the scope of Solar Thermal Conversion and Solar Photovoltaic system</li> <li>• Describe about wind energy, Geothermal energy and Biomass</li> <li>• Apply Non-conventional energies through various agencies</li> <li>• viz.WBREDA</li> </ul>
9.	ICT213	Hydraulics and Pneumatics	Dipankar Bose	14/12/2020	18/12/2020	1	Faculty of ME, Production and Automobile Engg.	After attending the programme, the participants will be able to <ul style="list-style-type: none"> <li>• know principle of hydraulics and pneumatics and their applications</li> <li>• describe various elements of fluid powered systems (hydraulics and pneumatics)</li> <li>• design and development of hydraulic and pneumatic circuits</li> </ul>
10.	ICT214	Pedagogical Communication	Habiba Hussain	14/12/2020	18/12/2020	1	Faculty & Laboratory Instructors of all disciplines	After attending the programme, participants will be able to: <ul style="list-style-type: none"> <li>• Analyse the essential components of pedagogical communication</li> <li>• Provide constructive feedback to students</li> <li>• Develop rubrics for improving communication</li> </ul>
11.	ICT215	An Introductory course on Soil Structure Interaction	Jagat Jyoti Mandal	14/12/2020	18/12/2020	1	Faculty members of Civil & allied disciplines	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>• Explain the importance of soil structure interaction and its application.</li> <li>• Explain the fundamental considerations of SSI and differences with conventional method of analysis of foundation</li> <li>• Apply SSI in analysing different types of foundation systems</li> <li>• Teach the related topics in more efficient manner</li> </ul>
12.	ICT216	Optimization with MATLAB	Nirmal Kumar Mandal	14/12/2020	18/12/2020	1	All Disciplines	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>• Model a physical system</li> <li>• Optimise linear function using LPP</li> <li>• Optimise non-linear function using SA, GA, PSO</li> </ul>
13.	ICT217	Process Control and Automation	Sagarika Pal	14/12/2020	18/12/2020	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After completing the course the participant will be able to <ul style="list-style-type: none"> <li>• Explain Conventional control techniques for industrial automation</li> <li>• Describe complex controls such as ratio, cascade, feed forward etc.</li> <li>• Develop programme on PLC and DCS for process automation</li> <li>• Explain SCADA systems for various process control systems</li> </ul>
14.	ICT218	Wastewater Characterisation and Management	Sailendra Nath Mandal	14/12/2020	18/12/2020	1	Faculty and Staff of any disciplines	After attending the programme the participants will be able to acquire – <ul style="list-style-type: none"> <li>• knowledge of basic concept of wastewater, sampling, preservation, analysis, standards, interpretation of result and management of wastewater, impact on human health ,</li> <li>• skill of handling/demonstrating equipment, performing experiments, interpreting results, preparing test report, providing laboratory instructions to develop inquiring attitude among the student and evaluation of laboratory performance in related to wastewater analysis/ treatment laboratory,</li> <li>• attitude of hand-on working/demonstrating in the laboratory/field (Plant Visit)</li> </ul>

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15.	ICT219	Course on Commentary for Code on Plain and Reinforced Concrete - IS:456-2000 with Amendments	Santanu Bhanja	14/12/2020	18/12/2020	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to <ul style="list-style-type: none"> <li>Identify the steps to be taken for concrete production, quality control and testing</li> <li>Interpret some of the important clauses of the code in their true letter and spirit</li> <li>Implement the codal clauses in a better manner for design and construction of Civil Engineering Structures</li> <li>Understand the philosophy and principles of Limit State Method in a comprehensive manner</li> <li>Conceive that this code cannot be considered as a one package for the design of concrete structures and has to be mandatorily read in conjunction with other codes</li> <li>Identify the major design and detailing considerations</li> <li>Be introduced to the Amendments of this standard</li> </ul>
16.	ICT220	Refresher course on Microprocessors & Microcontrollers	Soumitra Kumar Mandal	14/12/2020	18/12/2020	1	Faculty & Lab Tech. of EE, ECE, IE, EEE	After attending the programme, the participants will be able to <ul style="list-style-type: none"> <li>Describe Architecture and programming of 8085 &amp; 8051 Microcontroller</li> <li>Design interfacing circuits for Microprocessor &amp; Microcontroller based systems</li> <li>Develop Microprocessor &amp; Microcontroller based projects</li> <li>Write assembly language programs</li> </ul>
17.	ICT221	Laboratory Safety Management	Subrata Mondal	14/12/2020	18/12/2020	1	Faculty of all disciplines and laboratory technicians	After attending this program, participants would be able to: <ul style="list-style-type: none"> <li>demonstrate the safety management in the laboratory work areas;</li> <li>evaluate the risk assessment for the hazardous laboratory works;</li> <li>identify the emergency and safety equipment for laboratory works;</li> <li>demonstrate fire safety management in the laboratory work areas;</li> <li>describe the waste management for the laboratory etc.</li> </ul>
18.	ICT222	HRD through Training and Development	Sukanta Kumar Naskar	14/12/2020	18/12/2020	1	Faculty of all discipline	After attending the programme the participants will be able to: <ul style="list-style-type: none"> <li>Appreciate the importance the importance of training activity for employee development</li> <li>Identify the steps in conducting training</li> <li>Identify the parameters of effectiveness of a training</li> <li>Conduct Training Needs Analysis (TNA)</li> </ul>
19.	ICT223	Disaster Management	Uday Chand Kumar	14/12/2020	18/12/2020	1	Faculty and technicians all branches	After attending the programme, participants are expected to be able to <ul style="list-style-type: none"> <li>Define disaster</li> <li>Describe different types of Disaster</li> <li>Identify the cause of Disaster</li> <li>Describe types of safety required before disaster</li> <li>Take remedial action after the disaster</li> <li>Mitigate the area of disaster</li> </ul>

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20.	ICT224	NBA accreditation issues	Arpan Kumar Mondal & Ranjan Dasgupta	14/12/2020	18/12/2020	1	Faculty of all discipline	After successful completion of the program, the participants will be able to <ul style="list-style-type: none"> <li>• explain the role of Washington Accord (WA) in Indian context</li> <li>• explain the accreditation process as per NBA guideline</li> <li>• get exposure on mission, vision, PSO, PO, CO</li> <li>• Fill up SAR as per requirement</li> </ul>
21.	ICT225	Network Infrastructure Management	Rajeev Chatterjee	21/12/2020	01/01/2021	2	Faculty of CSE, IT Computer Application, Electronics, Electrical discipline	After participating in this program the participants will be able to: <ul style="list-style-type: none"> <li>• Explain the concept of Computer Network and Internetwork,</li> <li>• Identify the various components of Network and Internetwork,</li> <li>• Explain the various protocols in TCP/IP Suite,</li> <li>• Explain the concept of switching and routing,</li> <li>• Explain LAN and VLAN,</li> <li>• Demonstrate configuration of the devices such as routers, switches, etc.,</li> <li>• Explain the concept of network security.</li> </ul>
22.	ICT226	Thesis and Research paper writing	Rayapati Subbarao	28/12/2020	01/01/2021	1	Faculty of all discipline	At the end of the programme, the participants will be to: <ul style="list-style-type: none"> <li>• describe the steps involved in writing a thesis.</li> <li>• identify the scope of a thesis.</li> <li>• construe the results in a better way.</li> <li>• derive conclusions from the plots and contours made.</li> <li>• discover the ways of writing a research paper.</li> <li>• Communicate a paper in their area of research.</li> </ul>
23.	ICT227	Concept Mapping in Teaching Learning	Samiran Mandal	28/12/2020	01/01/2021	1	Faculty members of Technical Institutions	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>• Explain discrimination and equivalence</li> <li>• Define generalization and concept</li> <li>• Analyze a concept</li> <li>• Use concept map in teaching learning</li> </ul>
24.	ICT228	AutoCAD for Engineers	Mithu Dey	28/12/2020	01/01/2021	1	Faculty and technicians all branches	After attending the program, participants are expected to be able to <ul style="list-style-type: none"> <li>• Know the different commands of the Software</li> <li>• Draw the 2D and 3D</li> <li>• Appreciate the use of AutoCAD in Engg. And Science Field</li> </ul>
25.	ICT229	Utilization of Instructional Media and CAI in Effective Teaching	Subrata Chattopadhyay	28/12/2020	01/01/2021	1	Faculty of all Engineering and Humanities disciplines	After attending the course the participants will be able to <ul style="list-style-type: none"> <li>• Understand the utility of instructional media</li> <li>• Know the types of instructional media and its advantages</li> <li>• Familiar with the computer to be used as instructional media and its advantages and limitations</li> <li>• Understand the courseware</li> <li>• Classify the Different types of courseware</li> <li>• Application of Computer assisted instruction</li> <li>• Know the feathers of CAI</li> <li>• Explanation of different types of CAI</li> <li>• A model class with CAI</li> </ul>

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26.	ICT230	Induction Training	Sheela Yadav Rai	28/12/2020	01/01/2021	1	Faculty of all disciplines	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>• Formulate the lesson plan</li> <li>• Prepare the instructional objectives</li> <li>• Identify the principles of evaluation</li> <li>• Distinguish between types of evaluation</li> </ul>
27.	ICT231	Technology Enable Learning	Indrajit Saha	04/01/2021	08/01/2021	1	Faculty of all disciplines	After attending the course the participants will be able to <ul style="list-style-type: none"> <li>• describe the National policy regarding Technology in Education</li> <li>• apply the current Technology in online Education</li> <li>• explain the ethical issues in Technology Enable Learning</li> </ul>
28.	ICT232	Outcome Based Curriculum – Design and Implementation	Urmila Kar	04/01/2021	08/01/2021	1	Faculty members and technicians from all technical institutes,	After attending the programme, participants will be able to: <ul style="list-style-type: none"> <li>• analyze features of Outcome Based Education(OBE)</li> <li>• illustrate the steps for designing Outcome Based Curriculum (OBC)</li> <li>• identify the features of OBC</li> <li>• identify learning-teaching needed for effective implementation of OBC</li> <li>• identify assessment process for effective implementation of OBC</li> </ul>
29.	ICT233	Choice Based Credit System (CBCS) and Student's Performance Evaluation	Chandan Chakraborty	04/01/2021	08/01/2021	1	Faculty of all disciplines	On successful completion of the course the participant will be able to <ul style="list-style-type: none"> <li>• Understand the basic philosophy and structure of CBCS as recommended by University Grant Commission (UGC) in Institutional framework,</li> <li>• Explore the meaning of core, discipline specific elective, skill and ability enhancement core courses and their implication in the future education,</li> <li>• Develop an understanding of various assessment &amp; evaluation methods,</li> <li>• Design and practice of Rubrics for student's performance evaluation</li> </ul>
30.	ICT234	Development of Laboratory Instruction Sheet	Dipankar Bose	04/01/2021	08/01/2021	1	Faculty members of all technical institutions	After attending the programme, the participants will be able to <ul style="list-style-type: none"> <li>• classify various skills involved in laboratory practices</li> <li>• know various categories of laboratory experiments</li> <li>• write laboratory instruction sheets</li> <li>• Know evaluation techniques</li> </ul>
31.	ICT235	Effective Teaching	Habiba Hussain	04/01/2021	08/01/2021	1	Teachers from all disciplines	After attending the programme, participants will be able to: <ul style="list-style-type: none"> <li>• Identify components of effective teaching</li> <li>• explain paradigm change in Learning-Teaching system</li> <li>• Design instruction for active learning</li> </ul>
32.	ICT236	Refresher Course in Strength of Material	Jagat Jyoti Mandal	04/01/2021	08/01/2021	1	Faculty of Civil, Mechanical & allied disciplines (Specially new recruits)	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>• Explain basic concepts of Mechanics of Material</li> <li>• Apply these concepts to solve simple engineering problems</li> <li>• Teach the related topics in more efficient manner</li> </ul>
33.	ICT237	Three Dimensional Modelling with AUTOCAD and SOLIWORKS	Nirmal Kumar Mandal	04/01/2021	08/01/2021	1	Mechanical, Production, &Industrial	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>• Use various drafting and editing tools</li> <li>• Model 3D parts using AUTOCAD and SOLIWORKS</li> </ul>

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34.	ICT238	Control System analysis and Design with MATLAB	Prasanta Sarkar	04/01/2021	08/01/2021	1	Faculty of Engineering Disciplines	After attending the programme, the participants will be able to <ul style="list-style-type: none"> <li>• Model physical systems</li> <li>• Analyze in time &amp; frequency domain</li> <li>• Determine input – output stability</li> <li>• Design controller</li> <li>• Apply MATLAB Control System Toolbox</li> </ul>
35.	ICT239	Analysis and Design of RC Structures using Software as per the latest Indian Standards	Santanu Bhanja	04/01/2021	08/01/2021	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to <ul style="list-style-type: none"> <li>• Understand the role of software in structural analysis and design</li> <li>• Know the basic features of a universally accepted standard software- STAAD.Pro Connect - Latest version along with RCDC</li> <li>• Apply IS Codal provisions in analysis, design and detailing - IS 456, 1893, 875, 13920 etc.</li> <li>• Analyse, design and detail real-life multi- storeyed RCC buildings</li> <li>• Be introduced to the modifications incorporated in the latest version of the Software</li> </ul>
36.	ICT240	Induction Training	Subrata Mondal	04/01/2021	08/01/2021	1	Faculty of all disciplines	After attending this programme, participants would be able to: <ul style="list-style-type: none"> <li>• explore duties and responsibilities of a faculty;</li> <li>• explore instructional objectives and planning;</li> <li>• introduce concept of active learning;</li> <li>• explore various methods of teaching;</li> <li>• explore classroom management;</li> <li>• explore the importance of quality in education;</li> <li>• explore aims of laboratory in technical education;</li> <li>• explore question banking and assessment methods;</li> <li>• explore e-learning in teaching etc.</li> </ul>
37.	ICT241	Rural Development	Uday Chand Kumar	04/01/2021	08/01/2021	1	Faculty and technicians all branches	After attending the programme, participants are expected to be able to <ul style="list-style-type: none"> <li>• Describe comprehensive overview about the Rural Development</li> <li>• Explain the role of Panchayet</li> <li>• Identify the different scheme offered by Government (Central/State)</li> <li>• Prepare the action plan of the project areas</li> </ul>
38.	ICT242	Measurement and Experimentation on Sensors, Transducers & Actuators	Sagarika Pal	04/01/2021	08/01/2021	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After completing the course the participants will be able to <ul style="list-style-type: none"> <li>• Differentiate sensors, transducers and actuators</li> <li>• Define &amp; classify different sensors, transducers and actuators in industry</li> <li>• Experiment with different types of sensors and actuators</li> <li>• Explain the concept of signal conditioning circuits</li> <li>• Apply transducers and actuators in process Control Systems</li> </ul>
39.	ICT243	Digital Logic Design using VHDL and Verilog	Soumitra Kumar Mandal	04/01/2021	09/01/2021	1	Faculty & Lab Tech. of EE, ECE, IE, EEE	After attending the programme, the participants will be able to <ul style="list-style-type: none"> <li>• Study the operations and characteristics of Digital devices</li> <li>• Design of Digital Logic circuits</li> <li>• Implement digital logic circuits using VHDL &amp; Vrilog</li> </ul>

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40.	ICT244	Discrete Mathematics	Kinsuk Giri	11/01/2021	15/01/2021	1	Faculty of all discipline	On successful completion of the programme the participants will be able to <ul style="list-style-type: none"> <li>• understand the fundamentals of discrete mathematics</li> <li>• solve problems in various areas of discrete mathematics</li> <li>• apply tools to solve few discrete math problems</li> </ul>
41.	ICT245	Introduction to Software-Defined Networking (SDN)	Rajeev Chatterjee	11/01/2021	15/01/2021	1	Faculty of CSE, IT Computer Application, Electronics, discipline	After successful completion of the program, the participants will be able to <ul style="list-style-type: none"> <li>• Explain the concept of SDN,</li> <li>• Demonstrate controller management in SDN,</li> <li>• Exhibit the SD based WAN &amp; Mobile Networks, and</li> <li>• Explain Security issues and Back-up Restoration in SDN.</li> </ul>
42.	ICT246	Topics in Algorithms	Ranjan Dasgupta & Samir Roy	11/01/2021	15/01/2021	1	Faculty of CSE/IT discipline	After successful completion of the program, the participants will be able to <ul style="list-style-type: none"> <li>• Explain the fundamental concepts of analysis of algorithms</li> <li>• Identify different approaches to deal with classical problems</li> </ul>
43.	ICT247	Development of Mechanical Engineering Laboratory Experiments and Instruction Sheets	Samiran Mandal	11/01/2021	15/01/2021	1	Faculty of Mechanical , Automobile and Production Engg.	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>• Classify the laboratory experiments</li> <li>• Develop laboratory experiments</li> <li>• Plan laboratory instruction</li> <li>• Prepare laboratory instruction sheets</li> <li>• Evaluate laboratory skills</li> </ul>
44.	ICT248	Power Generation from Energy Resources	Sheela Yadav Rai	11/01/2021	15/01/2021	1	Faculty of all discipline	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>• Understand potential sources of conventional energies for power generation</li> <li>• Describe potential sources of non-conventional energies for power generation</li> <li>• Understand environmental aspects of power generation</li> <li>• Appreciate about various power projects</li> </ul>
45.	ICT249	Introduction to Welding Processes	Arpan Kumar Mondal	11/01/2021	15/01/2021	1	Faculty/Staff of ME/PE and related disciplines	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>• Explain the principles of various welding processes</li> <li>• Classify the welding processes</li> <li>• Describe the advanced welding processes</li> <li>• Study the defects in welding</li> <li>• Describe the welding symbols and positions</li> </ul>
46.	ICT250	Applications of MATLAB in Control System, Image Processing, Fuzzy Logic and GUI	Sagarika Pal	18/01/2021	22/01/2021	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After completing the course the participant will be able to <ul style="list-style-type: none"> <li>• Use MATLAB commands</li> <li>• Apply Control System Tool Box Commands</li> <li>• Illustrate Simulink Modelling techniques</li> <li>• Apply Image processing Tool Box Commands</li> <li>• Apply Fuzzy Logic Tool Box</li> <li>• Create GUI using GUIDE</li> </ul>
47.	ICT251	Hydraulic Machines	Dipankar Bose	18/01/2021	22/01/2021	1	Faculty of Mechanical , Automobile and Production Engg.	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>• know classification of hydraulic machines</li> <li>• understand working principles of different hydraulic machines</li> <li>• State performance characteristics of various hydraulic machines</li> </ul>



NATIONAL INSTITUTE OF TECHNICAL TEACHERS' TRAINING & RESEARCH, KOLKATA  
**List of ICT Mode STTPs for the Month of December, 2020 to June, 2021**

**Application Form Link: <http://bit.do/NITTRK-STTP-APPLICATION-FORM>**

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator	Date: From	Date: To	Duration (Week)	Target Participant / Group	Programme Objectives
48.	ICT252	Engineering Thermodynamics	Rayapati Subbarao	18/01/2021	22/01/2021	1	Faculty of ME	At the end of the programme, the participants will be to: <ul style="list-style-type: none"> <li>paraphrase the basics of thermodynamics.</li> <li>apply laws of thermodynamics in various problems.</li> <li>appreciate more about entropy and the processes of perfect gases.</li> <li>identify and analyze thermodynamic air cycles.</li> <li>familiarize the basics of fuels and combustion.</li> </ul>
49.	ICT253	Theory, Operation and Experimentation on Sensors, Transducers & Actuators	Subrata Chattopadhyay	18/01/2021	22/01/2021	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After attending the course the participants will be able to <ul style="list-style-type: none"> <li>Classify the Different types of Transducers &amp; Actuators used in Industry.</li> <li>Familiar with the overview of measurement system and selection of instruments</li> <li>Understand fundamental of pressure, flow, temperature, level, velocity, acceleration, vibration, position, displacement measuring transducers used in process industries.</li> <li>Apply the Transducers Actuators in process Control Systems.</li> <li>Know the concept of Intrinsic safety instruments</li> </ul>
50.	ICT254	Essentials of Strategic Management	Sukanta Kumar Naskar	18/01/2021	22/01/2021	1	Faculty of all discipline	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>Explore nature and scope of strategic management</li> <li>Identify stages in strategic planning</li> <li>Appreciate the concept of time management with strategic management</li> </ul>
51.	ICT255	Occupational Health and Safety	Uday Chand Kumar	18/01/2021	22/01/2021	1	Faculty and technicians all branches	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>explain that occupational health and safety is more than accident prevention — that it encompasses all aspects of working conditions;</li> <li>explain why management's commitment to health and safety is crucial;</li> <li>explain why training is a critical component of any health and safety programme;</li> <li>recognize a number of occupational hazards and some of the types of work generally associated with those hazards;</li> <li>discuss the range of hazards in their own workplaces</li> </ul>
52.	ICT256	Designing Teaching under Outcome Based Education	Urmila Kar	25/01/2021	29/01/2021	1	Faculty members and technicians from all technical institutes	After attending the programme, participants will be able to: <ul style="list-style-type: none"> <li>analyze features of Outcome Based Education(OBE)</li> <li>identify learning-teaching system for OBE</li> <li>identify teaching skill components</li> <li>select appropriate teaching strategies for OBE</li> <li>select appropriate teaching techniques for OBE</li> <li>prepare plan for specific instruction</li> <li>illustrate instructional delivery as per plan</li> </ul>
53.	ICT257	Data Analysis using MATLAB	Indrajit Saha	25/01/2021	29/01/2021	1	CSE, IT, BCA, MCA ECE, EE, ME, CIVIL	After attending the program, the participants will be able to <ul style="list-style-type: none"> <li>analyze the data using various statistical methods</li> <li>visualize the data for better understanding</li> <li>develop prediction model for real-life data driven problems</li> </ul>

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54.	ICT258	Seismic Analysis of Structures as per latest code	Mithu Dey	25/01/2021	29/01/2021	1	Faculty from Civil and allied branches	After attending the program, participants are expected to be able to <ul style="list-style-type: none"> <li>• Understand the earthquake effect on structures.</li> <li>• Know the different methods of analysis using software</li> <li>• Familiar with the code IS 18 93-2016</li> </ul>
55.	ICT259	Role of Technical Institutions in Community Development	Sheela Yadav Rai	25/01/2021	29/01/2021	1	All Discipline	After attending the programme the participants will be able to : <ul style="list-style-type: none"> <li>• Know various Community Development Schemes</li> <li>• Understand Feasibility Report</li> <li>• Prepare Planning Report</li> <li>• Make the Curricula</li> <li>• Estimate the Training cost</li> </ul>
56.	ICT260	LABVIEW & MATLAB Applications in Electrical & Electronics Engineering	Soumitra Kumar Mandal	25/01/2021	29/01/2021	1	Faculty & Lab Tech. of EE, ECE, IE, EEE	After attending the programme, the participants will be able to <ul style="list-style-type: none"> <li>• Understand fundamentals of LABVIEW</li> <li>• Implement LABVIEW Applications in Engineering</li> <li>• Explain the different aspect of MATLAB &amp; Simulink</li> <li>• Solve simple problem using MATLAB programming</li> <li>• Develop simple model using Simulink</li> <li>• Use MATLAB in analysis, design and simulation of Engineering problems</li> </ul>
57.	ICT261	Environmental Pollution Analysis and Health	Sailendra Nath Mandal	25/01/2021	05/02/2021	2	Faculty and Staff of any discipline	After attending the programme the participants will be able to gain and develop <ul style="list-style-type: none"> <li>• 1knowledge of basic concept of Air pollution, Water pollution, Noise pollution, Light pollution and impact on human health,</li> <li>• skill of handling/demonstrating conventional and modern sophisticated equipment, preparation of laboratory instruction sheets, interpreting experimental results, providing laboratory instruction such as to develop in enquiring attitude among students, preparing related test reports,</li> <li>• attitude of hands-on-working/demonstrating in the laboratory/field(Plant Visit)</li> </ul>
58.	ICT262	Introduction to Automobile Engineering	Samiran Mandal	01/02/2021	05/02/2020	1	Faculty members of Technical Institutions	After attending the programme the participants will be able to <ul style="list-style-type: none"> <li>• Classify the automobiles</li> <li>• Describe the construction of automobiles</li> <li>• Explain the working principle of different sub-systems of automobiles</li> </ul>
59.	ICT263	Statistics and Data Mining with SPSS	Chandan Chakraborty	01/02/2021	05/02/2021	1	Faculty of Engineering & Science disciplines	After completion of this course the participants will be able to <ul style="list-style-type: none"> <li>• Understand the overview of statistical techniques and SPSS software for quick data analysis,</li> <li>• Apply correlation and regression models for solving real-life problems,</li> <li>• Demonstrate Testing of Hypothesis using SPSS for real data sets,</li> <li>• Exhibit data mining techniques – like Classification and Clustering.</li> <li>• Explain neural network and decision trees etc.</li> <li>• Hands-on-training on SPSS and scientific interpretation as required for publication, thesis writing and report generation</li> </ul>