PROGRAMME CALENDAR
2022-23

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NATIONAL INSTITUTE OF TECHNIAL TEACHERS' TRAINING AND RESEARCH, KOLKATA
Block – FC, Sector – III, Salt Lake City, Kolkata – 700 106

TECHNICAL EDUCATION VISION

NITTTR, Kolkata envisions to be the lead resource institute for promoting excellence in technical education, management education and

➢ To introduce emerging scientific technologies for development of effective teaching-learning system in technical education,

➢ To increase the outreach of training by adopting flexible & Open Learning Technology,

➢ To integrate the world of work with the technical education system,

➢ To assist policy makers as a think-tank in formulating TVET strategies,

➢ To offer extension services and consultancy appropriate to TVET system, in collaboration with industry and community partnership,

➢ To develop and introduce Quality Management System,

➢ To share experience and collaborate with national and international agencies involved in technical education for mutual benefits,

➢ To undertake research in different areas of TVET system.

About Us

National Institute of Technical Teachers' Training & Research (NITTTR), Kolkata was established in 1965 as Technical Teachers' Training Institute, Calcutta. This was the first of four such Institutes (other three being at Chandigarh, Bhopal and Chennai) established by the Department of Education, Govt. of India as fully centrally funded Autonomous Institution. The primary focus of the Institute is to provide in-service training to the teachers and staff of Degree and Diploma level technical institutions and conduct activities related to the quality improvement of the technical education system of the country. NITTTR, Kolkata has been actively involved in improvement of quality of the technical education system in various states including those in the north-east through innovative academic interventions, providing assistance to policy makers at the national and state levels, in formulation of educational plans, projects and their implementation in the fast changing scenario. By virtue of working closely over the last few decades, this institute has developed a thorough understanding of the technical educational needs of the states in the eastern region including those in the north-east. Govt. of India, in 2003, accorded national status to the Institute, in recognition to the expert services rendered for overall improvement of quality of Technical Education System. NITTTR, Kolkata acts as a catalyst in introducing changes in the various components of technical education system, plays a proactive role in identifying changes in the industry, technology, economy and society and acts as a facilitator in this process of change.

Some of the notable national level projects in which the Institute is associated are Nodal agency to Centrally Sponsored Community Development through Polytechnic Scheme, Designing & conducting AICTE sponsored "Induction Training Programme" for fresh teachers of engineering and polytechnic colleges, Facilitating implementation of Centrally sponsored Scheme for Integrating Persons with Disabilities (PWD) in the mainstream of Technical & Vocational Education etc.

The focal activities of the Institute are Short Term Training, Curriculum Development, Learning Resources Development, Research in the field of Technical Education System, Educational Management and Extension Services. Besides regular activities, the Institute has been offering, since 2003, AICTE approved M. Tech. Degree Programme in Manufacturing Technology, affiliated to WBUT. During 2005-2006 two more M. Tech. Programmes namely Multimedia & Software Systems and Mechatronics Engineering were started. The M. Tech. Programme in Structural Engineering was also started from 2011-12. The Institute has highly qualified faculty members and excellent infrastructural support in the form of well-equipped laboratories, computers, library facilities, Welding Centre, CAD/CAM and other resources. The institute has two Extension Centres one at Guwahati and the other in Bhubaneswar for reaching out to its clients in the North-east and Orissa. At present this Institution is also focusing on others, Teachers' Training through ICT Mode.

Preface

Like previous years, National Institute of Technical Teachers' Training and Research (NITTTR), Kolkata has prepared its Programme Calendar for the year 2022-23.

In order to fulfill the needs of technical teachers of the country, Short- Term Training programmes (STTP) in the following modes are planned.

1. Contact mode at NITTTR, Kolkata and/or the extension centres
2. ICT-based Programmes
3. In-House Programmes
4. Demand-based Special Programmes (both offline and online)
5. Hybridmode

The schedules of the trainings planned in this calendar are not exhaustive. The Institute also provides trainings based on specific needs of various stake holders including Private Technical Institutes following the guidelines of the Institute. Further, In-House training may be organized to fulfil the requirement of Faculty Development Programme of various Technical Institutes.
It is intended that all Technical Institutes will come up with their needs and take advantage of services provided by NITTTR, Kolkata. This helps to upgrade the learning-teaching system of the institutes and in turn, enriches the education system of the country.

FOCAL ACTIVITIES OF NITTTR Kolkata

NATIONAL INSTITUTE OF TECHNICAL TEACHERS' TRAINING AND RESEARCH, KOLKATA

Registration for STTP – Application Form

1   Prog. Code   :   [_____]

2   (a)   Programme Title   :   [_____]

    (b)   Date   :   From: [_____]   To: [_____]

    (c)   Prog. Coordinator(s)   :   [_____]

3   (a)   Name (in CAPS)   :   [_____] [_____] [_____]
                                              First   Middle   Last

    (b)   Designation   :   [_____]

    (c)   Department   :   [_____]

    (d)   Institution   :   [_____]

    (e)   Institute Address   :   [_____]

                                           Pin: [_][_][_][_][_][_]

                              State [_____]

    (f)   Caste   :   [_____]   (g)   Gender [_____]

    (h)   Contact Number   :   [_____]
                                           Mobile

                                           [_____]
                                           Email

4   Highest Academic Qualification:

Degree/Diploma	University/Others	Year of Passing	Class Obtained

5   (a)   Experience (in years)   :   Teaching [_____]   Industry/Field [_____]

6. Payment of Convenience Charge Rs. 118/- Paid – Yes ☐   No ☐ , If yes, Receipt No. _____

I promise to attend the above mentioned training programme, if selected.

Date: Signature of the Applicant

This is to certify that the applicant will be released to attend the training programme, if selected, without any financial liability on part of the sponsoring authority.

Date: Signature of the Sponsoring Authority with Seal

NOTE: Application without Signature & Seal of the Sponsoring Authority will not be considered for selection.

Scan copy send by Email: ***academic@nitttrkol.ac.in***

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NATIONAL LEVEL SHORT TERM TRAINING PROGRAMMES

Sl. No.	Prog. Code	Mode	Venue	Programme Title	Programme Co-ordinator (s)	Date From	To	Week	Target Participant / Group	Programme Objectives
1.	CU01	ICT	Kol	Earthquake Resistant Structures (special emphasis will be given on FEMA-356, IS 1893-2016 and IS 13920-2016)	Mithu Dey	04/04/2022	08/04/2022	1	Faculty of Civil engg and allied braches	After attending the program, participants are expected to be able to • Understand the earthquake effect on structures. • Know the different methods of analysis using software • Familiar with different codal provisions for analysis and design of structures • Familiar with advanced technology to make the earthquake resistant structures
2.	CU02	ICT	Kol	Introduction to SCILAB	Kinsuk Giri	04/04/2022	08/04/2022	1	All Discipline	On successful completion of the programme the participants will be able to • get an exposure on SCILAB • get an overview on solution techniques • solve problems using SCILAB
3.	MGT01	ICT	Kol	Managerial and Technical Skills for Non-Teaching Employees	Sukanta Kumar Naskar & Arpan Kumar Mondal	04/04/2022	08/04/2022	1	Staff from all technical institutions	After successful completion of the program, the participants will be able to • Explain the various managerial skills required for non-teaching employees • Apply various technical skills required for non-teaching employees
4.	PS01	ICT	Kol	Development of Laboratory Instruction and Manual	Sagarika Pal	04/04/2022	08/04/2022	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After completing the course the participants will be able to • Select the laboratory experiments from curriculum • Prepare laboratory manual • Guide student to perform laboratory experiment • Evaluate the laboratory performance of students • Guide students' project work • Evaluate students' project work
5.	CU03	ICT	Kol	Power Generation from Energy Resources	Sheela Yadav Rai	04/04/2022	08/04/2022	1	All Discipline	After attending the programme the participants will be able to • Understand potential sources of conventional energies for power generation • Describe potential sources of non-conventional energies for power generation • Understand environmental aspects of power generation • Appreciate about various power projects
6.	CU04	Contact	Kol	Analog Electronics	Soumitra Kumar Mandal	04/04/2022	08/04/2022	1	Faculty and Lab. Tech. of Engg. & Polytechnic in EE, ECE, EIE & Allied Branch.	After attending the programme, the participants will be able to • Study the operations and characteristics of Analog devices • Design of Analog circuits • Implement Analog electronics circuits using software

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7.	CU05	Contact	Kol	Design and Development of Content for e-Learning	Rajeev Chatterjee & Ranjan Dasgupta	04/04/2022	15/04/2022	2	Faculty of all disciplines	After going through this program, the participants will be able to: • explain the concept of e-learning, TEL • explain synchronous and asynchronous e-learning models, • explain the various standards available for e-learning, • explain the basis terminologies such as Learning Objects, sharable Content Objects, SCO, • explain and demonstrate ADDIE Model of ISD, • Explain the importance of assessment and item development, • exhibit and demonstrate the process of e-content creation for MOOCs based e-content. • develop e-content chunks / learning object in their own subject domain, and • exhibit and demonstrate e-learning tools and technology. • Explain the concept of lifelong learning
8.	CU06	ICT	Kol	Refresher Course on Mechanical Engineering	Nirmal Kumar Mandal	11/04/2022	22/04/2022	2	Mechanical, Production, Industrial, and allied disciplines	After attending the programme the participants will be able to • Explain trends of mechanical engineering with special emphasis in manufacturing technology • Explain advanced welding processes • Select a particular manufacturing process
9.	CU07	Contact	BBSR	Introduction to Coding Theory	Rajeev Chatterjee	18/04/2022	22/04/2022	1	Faculty of all disciplines	After participating in this program, the participants will be able to: • Explain information, quality of Information, and Information entropy, • Demonstrate the working principles and design of AES, DES, • Demonstrate various encoding techniques like Arithmetic Encoding, Huffman Encoding, Hamming Code, Gray code, JPEG Encoding Standard, etc., and • Demonstrate the applications of coding techniques in the area of Networking and Communication
10.	PS02	ICT	Kol	Designing Curriculum under OBE	Urmila Kar	18/04/2022	22/04/2022	1	Faculty members and technicians from all technical institutes	After attending the programme, participants will be able to: • Demonstrate curriculum development process • Analyse content of technical curriculum • Identify the Features of Outcome Based Education System. • Explain the components and Features of Outcome Based Curriculum. • Develop Curriculum Content under Outcome Based Education
11.	PS03	ICT	Kol	Role of Technical Institutions in Community Development	Sheela Yadav Rai	18/04/2022	22/04/2022	1	All Discipline	After attending the programme the participants will be able to : • Know various Community Development Schemes • Understand Feasibility Report • Prepare Planning Report • Make the Curricula • Estimate the Training cost

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12.	PS04	Contact	Kol	Entrepreneurship Development	Subrata Mondal	18/04/2022	22/04/2022	1	Faculty of all disciplines	After attending this programme, participants would be able to: • explore concept of entrepreneurship; • identify internal and external factors for entrepreneurship; • explore characteristics of an entrepreneur; • explore entrepreneurial motivation and barrier; • explore stages in entrepreneur process; • explore research commercialization; • explore technology business incubation Centre etc.
13.	PS05	Contact	Kol	Environmental Sampling and Analysis	Sailendra Nath Mandal	18/04/2022	29/04/2022	2	Faculty and Staff of all disciplines	After attending the programme the participants will be able to acquire • knowledge of concept and purpose of sampling, different class of sampling, preservation techniques, analytical methods, different standards of environmental samples, • skill of handling conventional and advanced 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 environmental laboratory, • attitude of hand-on working in the laboratory/field (Plant Visit)
14.	MGT02	ICT	Kol	Refresher Course on Research Methodology	Chandan Chakraborty	18/04/2022	29/04/2022	2	Faculty of all disciplines	After completion of this course the participants will be competent enough to • Develop understanding of the research design, interdisciplinary research in the line of NEP 2020. • Explore about systematic literature review with meta-analysis, PRISMA • Gain knowledge in data analytics using statistical methods • Hands-on-training with Excel and SPSS for data analysis. • Paper writing, thesis reporting etc.

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15.	CU08	ICT	Kol	Refresher Course in Geotechnical Engineering	Jagat Jyoti Mandal	25/04/2022	29/04/2022	1	Faculty members of Civil & allied disciplines (Specially new recruits)	After attending the programme the participants will be able to • Explain index properties. consistency, and particle size distribution of soil and their importance in geotechnical engineering • Explain importance of soil classification & Classify soil as per Indian standards specifications • Explain flow through soil and concepts of flownets • Explain the concept of consolidation of soil and determine the consolidation characteristics of soil from laboratory data • Explain and define strength characteristics of soil and determine the strength characteristics of soil from laboratory data • Explain Earth pressure theories and compute earth pressure from first principles • Explain fundamental consideration of slope stability analysis with examples • Impart acquired knowledge to students in a systematic manner
16.	MGT03	ICT	Kol	Institutional Management and Administrative Procedures	Sukanta Kumar Naskar	25/04/2022	29/04/2022	1	Teachers, Administrators and Support Staff	After attending the programme, participants will be able to: • Manage department effectively • Manage institute effectively
17.	CU09	Contact	Kol	Modern Control	Prasanta Sarkar	25/04/2022	29/04/2022	1	Faculty of Engineering Disciplines	After attending the programme, the participants will be able to • Model physical systems in state space • Realise state space model from Transfer function • Determine Controllability and observability • Design controller and observer • Apply MATLAB Control System Toolbox

18.	CU10	Contact	Kol	DC Machines and Transformer	Subrata Chattopadhyay	25/04/2022	29/04/2022	1	Faculty from Electrical, Electronics, Instrumentation and allied disciplines	After attending the course the participants will be able to
										• Understand the working principle, operation and maintenance of the following machines
										   o DC Generator
										   o DC Motor
										   o Transformer
										   o Stepper Motor
										   o Brush less Motor
										• Classify the Hazardous areas in Industries for selecting the machines in operation
										• Familiar with the source of ignition in Industries.
										• Explain the Electrical Protection system used in Hazardous area.
										• Know about the ingress protection.

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19.	CU11	Contact	Guw	Introduction to Coding Theory	Rajeev Chatterjee	02/05/2022	06/05/2022	1	Faculty of all disciplines	After participating in this program, the participants will be able to: • Explain information, quality of Information, and Information entropy, • Demonstrate the working principles and design of AES, DES, • Demonstrate various encoding techniques like Arithmetic Encoding, Huffman Encoding, Hamming Code, Gray code, JPEG Encoding Standard, etc., and • Demonstrate the applications of coding techniques in the area of Networking and Communication
20.	CU12	Contact	Kol	AutoCAD for Engineers	Mithu Dey	09/05/2022	13/05/2022	1	Faculty and Staff of all disciplines	After attending the program, participants are expected to be able to • Know the different commands of the Software • Draw the 2D and 3D • Appreciate the use of AutoCAD in Engg. And Science
21.	CU13	Contact	Kol	Laboratory Practice on Brick and Cement	Uday Chand Kumar	09/05/2022	13/05/2022	1	Laboraotry Instructor / Technician / Assistant of Civil Engg. and allied branches deptt.	After attending the programme the participants will be able to • Explain basic concepts on laboratory tests of Bricks, cement • Guide students in conducting different laboratory experiments for determination of various parameters. • Demonstrate different tests on cement and Brick.
22.	PS06	Contact	BBSR	Word Processing with LaTeX	Kinsuk Giri	09/05/2022	13/05/2022	1	All Discipline	On successful completion of the programme the participants will be able to • get exposure in Word Processing Tools • describe the fundamentals LaTeX programming • apply LaTeX for preparing scientific and non-scientific documents
23.	PS07	ICT	Kol	Estimating & Costing of Non-conventional Energies	Sheela Yadav Rai	09/05/2022	13/05/2022	1	All Discipline	After attending the programme the participants will be able to : • Describe various type of Non-conventional Energies Sources • Understand the scope of Solar energy, Solar Thermal Conversion, Solar Collector, Wind Energy • Estimating & costing of various energies
24.	PS08	ICT	Kol	How to Write Thesis and Research paper	Rayapati Subbarao	9/05/2022	13/05/2022	1	All Discipline	At the end of the programme, the participants will be to: • Describe the steps involved in writing a thesis. • Identify the scope of a thesis. • Construe the results in a better way. • Derive conclusions from the plots and contours made. • Realize the ways of writing a research paper. • Communicate a paper in their area of research.

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25.	PS09	Contact	Kol	Testing of Drinking Water and its Importance	Sailendra Nath Mandal	09/05/2022	20/05/2022	2	Faculty and Staff of all disciplines	After attending the programme the participants will be able to gain and develop 1. knowledge of water parameters, methods of testing techniques of drinking water and its importance 2. skill of handling conventional and advanced 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 drinking water testing laboratory, 3. attitude of hands-on-working in the laboratory/field(Plant Visit)
26.	CU14	Contact	Kol	IP Networking	Rajeev Chatterjee	09/05/2022	20/05/2022	2	Faculty of CSE, IT Computer Application, Electronics, discipline	After participating in this program, the participants will be able to: • Explain the concept of Computer Network and Internetwork, • Demonstrate Network Media and Topology • Identify the various components of Network and Internetwork, • Explain the various protocols in TCP/IP Suite, • Explain the concept of switching and routing, • Demonstrate configuration of the devices such as routers, switches, etc., • Design their own campus wide network and IT infrastructure,
27.	CU15	ICT	Kol	Fluid Mechanics and Machinery	Dipankar Bose	09/05/2022	20/05/2022	2	Faculty members of Technical Institutions with ME, Production, Automobile Engg. Specialization	After attending the programme the participants will be able to • know classification and properties of fluid • state principles of hydrostatics and buoyancy • explain the principle of dynamics of flow • understand the concept of flow through pipes and openchannel flow • know classification of fluid machines • understand working principles of different fluid machines
28.	PS10	Contact	Kol	Effective Training	Sukanta Kumar Naskar	16/05/2022	20/05/2022	1	Teachers, Administrators	After attending the programme, participants will be able to: • Understand the components of HRD • Identify the stages for conducting a training programme • Design a training programme • Apply differt techniques for conducting a training programme • Evaluate effectively outcome of a training programme
29.	CU16	ICT	Kol	Fundamentals of Image Processing	Indrajit Saha	23/05/2022	27/05/2022	1	CSE, IT, BCA, MCA, ECE, EE, ME, CIVIL	After attending the program, the participants will be able to • describe the fundamentals of image processing (IP) in MATLAB • apply MATLAB commands to do IP • explain image processing in classroom
30.	PS11	ICT	Kol	Writing Research Proposal	Habiba Hussain	23/05/2022	27/05/2022	1	Faculty from all disciplines	After attending the programme, participants will be able to: • Identify components of a research proposal • Distinguish between the types • Draft a research proposal

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31.	CU17	Contact	Kol	MATLAB and its Applications	Prasanta Sarkar	23/05/2022	27/05/2022	1	Faculty and Technical Staff of Engineering Disciplines	After attending the programme, the participants will be able to • Familiarise with MATLAB commands • Use MATLAB Commands • Develop MATLAB script and function files • Solve Engineering Problems using MATLAB
32.	CU18	Contact	Kol	CNC Machining System	Nirmal Kumar Mandal	23/05/2022	27/05/2022	1	Mechanical, Production, &Industrial	After attending the programme the participants will be able to • Explain CNC Technology. • State the constructional features of CNC Machines
33.	PS12	ICT	Kol	Induction Training	Subrata Mondal	23/05/2022	27/05/2022	1	Faculty of all disciplines	After attending this programme, participants would be able to: • explore duties and responsibilities of a faculty; • explore instructional objectives and planning; • introduce concept of active learning; • explore various methods of teaching; • explore classroom management; • explore the importance of quality in education; • explore aims of laboratory in technical education; • explore question banking and assessment methods; • explore e-learning in teaching etc.
34.	CU19	ICT	Kol	Digital Pedagogy and Tools for Teaching and Learning	Arpan Kumar Mondal & Kinsuk Giri	23/05/2022	27/05/2022	1	Techical teachers and staff from all disciplines	After going through this program the participants will be able to: • Explain the need for online pedagogy • Plan online instruction • Explain the concept of online Mode of teaching-learning, • Understand the use of various digital tools, • Apply different online tools for e-learning • Apply different online tools for e-assessment • Incorporate different principles for effective online delivery
35.	CU20	Contact	Kol	Control System – using MATLAB	Soumitra Kumar Mandal	30/05/2022	03/06/2022	1	Faculty and Lab. Tech. of Engg. & Polytechnic in EE, ECE, EIE & Allied Branch.	After attending the program, the participants will be able to • Design of Control System using MATLAB • Discrete-Time Systems • Fuzzy Logic Control • Application of Fuzzy Logic Tool Box

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36.	CU21	ICT	Kol	Refresher Course on Machine Learning with R	Chandan Chakraborty	30/05/2022	10/06/2022	2	Faculty of Engineering & Science, Allied disciplines	On successful completion of the course the participants will be able to • Develop knowledge and understanding of the most common types of machine learning problems for Engineering applications, • Explore the overview and learning skill with R Studio, • Expose with the design and development of Supervised Machine Learning Algorithms with R programming • Also Develop Unsupervised machine learning models with R programming • Deploy ML algorithms for engineering problem solution through project based learning.
37.	PS13	ICT	Kol	Induction Training programme Phase - I	Urmila Kar	30/05/2022	10/06/2022	2	Faculty members and technicians from all technical institutes	After attending the programme, participants will be able to: • Explain the quality issues in Technical Education and Role of Teachers • Illustrate the process involved in Curriculum Development, Implementation and Reforms • Decide learning outcomes of specific course • Identify teaching strategy, methods and skills • Plan instruction • Assess performance of learners
38.	CU22	ICT	Kol	Introduction to Finite Element Method	Mithu Dey	06/06/2022	10/06/2022	1	Faculty of Civil engg and allied braches	After attending the program, participants are expected to be able to • Understand the different methods of structural analysis • Familiar with FEM • Apply the FEM in solving problems • Know the use of FEM based software for analysis
39.	PS14	ICT	Kol	Community Development through Technical Institutes	Sheela Yadav Rai	06/06/2022	10/06/2022	1	All Discipline	After attending the programme the participants will be able to : • Know various Community Development Schemes • Understand Feasibility Report • Prepare Reports • Make linkages with organisations

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40.	MGT04	Contact	Kol	Laboratory Safety Management	Subrata Mondal	06/06/2022	17/06/2022	2	Faculty of all disciplines and laboratory technicians	After attending this program, participants would be able to: • demonstrate the safety management in the laboratory work areas; • evaluate the risk assessment for the hazardous laboratory works; • identify the emergency and safety equipment for laboratory works; • demonstrate fire safety management in the laboratory work areas; • describe the waste management for the laboratory etc.
41.	CU23	Contact	Kol	Advance Programming in C	Rajeev Chatterjee	13/06/2022	17/06/2022	1	Faculty of all disciplines	After going through this program the participants will be able to: • Demonstrate the various operation on single and multi – dimensional arrays and structures, • Demonstrate programs related to functions and pointers, and • Demonstrate programing skills on dynamic allocation of memory using linked list.
42.	CU24	ICT	Kol	Control System analysis and Design with MATLAB	Prasanta Sarkar	13/06/2022	17/06/2022	1	Faculty of Engineering Disciplines	After attending the programme, the participants will be able to • Model physical systems • Analyze in time & frequency domain • Determine input – output stability • Design controller • Apply MATLAB Control System Toolbox
43.	CU25	Contact	Kol	Digital Electronics	Soumitra Kumar Mandal	13/06/2022	17/06/2022	1	Faculty and Lab. Tech. of Engg. & Polytechnic in EE, ECE, EIE & Allied Branch.	After attending the programme, the participants will be able to • Study the operations and characteristics of Digital devices • Design of Digital circuits • Implement digital electronics circuits using VHDL and Verilog
44.	CU26	Contact	Kol	Power Plant Engineering	Subrata Chattopadhyay	13/06/2022	17/06/2022	1	Faculty from Elect., Mech., Electronics, Instrumentation and allied disciplines	After attending the course the participants will be able to • Understand electrical equipment used in power plant • Know instrument transformers [CT & PT] and their applications • Familiar with measurement and instrumentation in power plant • Classify the Different types of transducers and fundamental of pressure, flow, temperature, level, velocity, acceleration, vibration, position, displacement measuring transducers used in power plant. • Application of PLC & DCS in power plant • Apply SCADA and power plant automation • Design boiler, furnace instrumentation and control • Know hazardous area classification

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45.	PS15	ICT	Kol	Assessment and Evaluation	Dipankar Bose	13/06/2022	17/06/2022	1	Faculty members of all technical Institutions	After attending the programme the participants will be able to • Differentiate between assessment and evaluation • Know attributes of effective teaching for quality assessment and evaluation of students' performance • State various toots of assessment • Understand classroom assessment and evaluation • Know the techniques of question paper setting
46.	PS16	Contact	Kol	Academic Research Writing and LaTeX	Kinsuk Giri, Samir Roy & Rayapati Subbarao	13/06/2022	24/06/2022	2	All Discipline	On successful completion of the programme the participants will be able to • Define the ways of solving various research problems. • Identify the steps involved in writing a thesis and research paper. • Discuss the aspect of results and discussion in a better way. • Understand the use of Latex for research purposes.
47.	PS17	ICT	Kol	Advanced Pedagogy	Habiba Hussain	13/06/2022	24/06/2022	2	Faculty from all disciplines	After attending the programme, participants will be able to: • Evaluate existing pedagogical practices in higher education • Examine innovative practices in teaching • Analyse hybrid model for enhancing learning • Categorise learning styles • Analyse hybrid model for enhancing learning • Incorporate technology in teaching • Analyse hybrid model for enhancing learning • Assess learning performance
48.	CU27	ICT	Kol	Commentary on the Indian Standard on Plain and Reinforced Concrete - IS:456-2000 with Amendments	Santanu Bhanja	20/06/2022	24/06/2022	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to • Identify the steps to be taken for concrete production, quality control and testing • Interpret some of the important clauses of the code in their true letter and spirit • Implement the codal clauses in a better manner for design and construction of Civil Engineering Structures • Understand the philosophy and principles of Limit State Method in a comprehensive manner • 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 • Identify the major design and detailing considerations • Be introduced to the Amendments of this standard • Be introduced to the limitations and probable modifications

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49.	CU28	ICT	Kol	Introduction to Data Science	Indrajit Saha	20/06/2022	24/06/2022	1	CSE, IT, BCA, MCA, ECE, EE, ME, CIVIL	After attending the program, the participants will be able to • analyze the data using various statistical methods in MATLAB • visualize the data for better understanding • develop prediction model for real-life data driven problems in MATLAB
50.	CU29	ICT	Kol	Data Analytics with MATLAB	Nirmal Kumar Mandal	20/06/2022	24/06/2022	1	All Disciplines	After attending the programme the participants will be able to • Fit a curve • Measure error of a fitting • Analyse the error • Perform regressions
51.	PS18	ICT	Kol	Water Treatment Technology	Sailendra Nath Mandal	20/06/2022	01/07/2022	2	Faculty and Staff of all disciplines	After attending the programme the participants will be able to acquire 1. knowledge of water treatment processes for drinking water production 2. skill of handling conventional and advanced 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 drinking water treatment laboratory, 3. attitude of hands-on-working in the laboratory/field(Plant Visit)
52.	PS19	Contact	Kol	Induction Training	Sukanta Kumar Naskar	20/06/2022	01/07/2022	2	All Discipline	After attending the programme participants will be able to: • Develop concept of curriculum development • Manage the classroom effectively • Identify instructional objectives • Develop lesson plan • Identify quality parameters of Technical Education • Identify managerial roles of a teacher
53.	PS20	ICT	Kol	Accreditation Process and NBA	Urmila Kar	27/06/2022	01/07/2022	1	Faculty members, Technicians and Administrators from all AICTE approved institutes	After attending the programme, participants will be able to: • explain the need for and types of Accreditation in Higher Educational Institutes • illustrate the steps involved in Accreditation Process in Higher Educational Institutes • explain the features of Outcome Based Accreditation(OBA) • explain the role of NBA with reference to OBA • explain the process of preparing self-assessment report (SAR) for Accreditation by NBA
54.	CU31	Contact	Kol	Control System – using LABVIEW	Soumitra Kumar Mandal	04/07/2022	08/07/2022	1	Faculty and Lab. Tech. of Engg. & Polytechnic in EE, ECE, EIE & Allied Branch.	After attending the program, the participants will be able to • Design of Control System using LABVIEW • Discrete-Time Systems • Fuzzy Logic Control

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55.	PS21	ICT	Kol	NBA Accreditation and SAR Preparation	Rayapati Subbarao	04/07/2022	08/07/2022	1	Any faculty	At the end of the programme, the participants will be to: • Identify the Impact of NBA Accreditation. • Prepare Vision, Mission, Program Educational Objectives. • Prepare Outcomes and Program Outcomes. • Learn how to prepare SAR. • Practice Criteria i to x.
56.	CU32	Contact	Kol	Network Infrastructure Management	Rajeev Chatterjee	04/07/2022	15/07/2022	2	Faculty of CSE, IT Computer Application, Electronics, discipline	After participating in this program, the participants will be able to: • Explain the concept of Computer Network and Internetwork, • Identify the various components of Network and Internetwork, • Explain the various protocols in TCP/IP Suite, • Explain the concept of switching and routing, • Explain LAN and VLAN, • Demonstrate configuration of the devices such as routers, switches, etc., • Data Centre Management • Explain the concept of network security. • Explain the Working Principle of Storage System
57.	CU33	ICT	Kol	Engineering Capstone Project	Prasanta Sarkar	11/07/2022	15/07/2022	1	Faculty and Technical Staff of all Disciplines	After attending the programme, the participants will be able to • Form Capstone Project Team • Identify Capstone Project topic • Prepare Capstone Project proposal • Develop Capstone Project • Assess Capstone Project
58.	PS22	ICT	Kol	Renewable Energy Sources and Emerging Technologies	Sheela Yadav Rai	11/07/2022	15/07/2022	1	All Discipline	After attending the programme the participants will be able to: • Understand Energy Sources and their utilization • Explain Environmental aspects of electric energies generation • Understand the scope of Solar Thermal Conversion and Solar Photovoltaic system • Describe about wind energy, Geothermal energy and Biomass • Apply Non-conventional energies through various agencies • viz. WBREDA
59.	CU34	Contact	Kol	Fluid Power	Dipankar Bose	11/07/2022	15/07/2022	1	Faculty members of Technical Institutions with ME, Production, Automobile Engg. Specialization	After attending the programme the participants will be able to -know principles and applications of fluid pwered systems -understand the working principles of various fluid pwererd systems -state characteristics of different fluid powered sustems

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60.	PS23	ICT	Kol	Digital Tools for Faculty and Staff	Arpan Kumar Mondal & Kinsuk Giri	11/07/2022	15/07/2022	1	Techical teachers and staff from all disciplines	After going through this program the participants will be able to: • Explain the need for online pedagogy • Plan online instruction • Explain the concept of online Mode of teaching-learning, • Understand the use of various digital tools, • Apply different online tools for e-learning • Apply different online tools for e-assessment • Incorporate different principles for effective online delivery
61.	CU35	Contact	Kol	Concrete Mix Proportioning as per IS 10262 - 2019	Santanu Bhanja	18/07/2022	22/07/2022	1	Faculty of Civil, Architecture & allied disciplines	After attending the course, the participants will be able to • Understand the process of selection of good ingredients of concrete • Identify the important properties of concrete • Be acquainted with the process of concrete mix design as per the latest code of practice • Be familiar with mix design of different types of concrete • Identify different types of admixtures and their use
62.	PS24	ICT	Kol	Values and Ethics for Professional	Mithu Dey	18/07/2022	22/07/2022	1	Faculty and Staff of all disciplines	After attending the program, participants are expected to be able to • Explain the concept of Professional Values, Ethics and Attitude • Identify issues and challenges in ethical practice • Identify the ways and means for ensuring ethical behaviour by teachers • Practice the roles of 'Technical Teachers as Professionals' in establishing the; Guru-Shisya Parampara' in present context • Describe the roles of technical teachers in sustainability development
63.	PS25	ICT	Kol	Environmental Chemistry	Sailendra Nath Mandal	18/07/2022	22/07/2022	1	Faculty and Staff of all disciplines	After attending the programme the participants will be able to acquire 1. knowledge of chemistry of water, wastewater and ambient atmosphere, 2. skill of handling conventional and advanced 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 environmental chemistry laboratory, 3. attitude of hands-on-working in the laboratory/field (Plant Visit)
64.	PS26	ICT	Kol	Effective Teaching	Habiba Hussain	18/07/2022	22/07/2022	1	Faculty from all disciplines	After attending the programme, participants will be able to: • Characterise effective teaching • Identify essential parameters for effective teaching • Practise few active learning strategies • Assess teaching effectiveness

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65.	CU30	Contact	Kol	NBA Accreditation and Document preparation	Uday Chand Kumar	18/07/2022	22/07/2022	1	Faculty and Staff of all disciplines	After attending the course the participants will be able to • Find the impact of NBA Accreditation • Prepare Vision, Mission, CO, PO and PEO. • Prepare SAR Documents.
66.	CU36	Contact	BBSR	Theory, Operation and Experimentation on Sensors, Transducers & Actuators	Subrata Chattopadhyay	18/07/2022	22/07/2022	1	Faculty from Electrical, Mechanical, Electronics, Instrumentation and allied disciplines	After attending the course the participants will be able to • Classify the Different types of Transducers & Actuators used in Industry. • Familiar with the overview of measurement system and selection of instruments • Understand fundamental of pressure, flow, temperature, level, velocity, acceleration, vibration, position, displacement measuring transducers used in process industries. • Apply the Transducers Actuators in process Control Systems. • Know the concept of Intrinsic safety instruments
67.	CU37	Contact	Kol	Advanced Materials Science and Engineering	Subrata Mondal	18/07/2022	22/07/2022	1	Faculty of Chemical Engg. Mechanical Engg., Science, Textiles Engg., Materials Sci. & Engg., Polymer Engg. and allied disciplines	After attending this program, participants would be able to: • explain the structure sensitive properties of polymers, metals and alloys; • explain the fundamental of nanomaterials, types of nanomaterials, principle methods of nanomaterials preparation, properties and applications; • explain types, manufacturing process, properties and applications of metal matrix, ceramic matrix and polymer matrix composites/nanocomposites; • explain biocompatible and biodegradable materials, characteristics and applications for various biomaterials etc.
68.	CU38	ICT	Kol	Fundamentals of Data Security	Indrajit Saha	25/07/2022	29/07/2022	1	CSE, IT, BCA, MCA, ECE, EE, ME, CIVIL	After attending the program, the participants will be able to • describe the fundamentals of Data Security • demonstrate how to maintain the privacy of computer data • explain network security in classroom
69.	MGT05	Contact	Kol	Managerial Skills for Teachers	Sukanta Kumar Naskar	25/07/2022	29/07/2022	1	Teachers, Administrators and Support Staff	After attending the training programme participants will be able to: • Demonstrate the managerial skill effectively • Identify managerial skills of a teacher
70.	CU39	ICT	Kol	Electrical and Electronics Circuits - Analysis and Design using MATLAB	Soumitra Kumar Mandal	25/07/2022	29/07/2022	1	Faculty and Lab. Tech. of Engg. & Polytechnic in EE, ECE, EIE & Allied Branch.	After attending the programme, the participants will be able to • Understand fundamentals of MATLAB • Implement MATLAB Applications in Electrical and Electronics Circuit • Explain the different aspect of MATLAB & Simulink • Solve simple problem using MATLAB programming • Develop simple model using Simulink • Use MATLAB in analysis, design and simulation of Electrical and Electronics Circuit problems

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71.	CU40	ICT	Kol	Data Analytics with SPSS / Excel	Chandan Chakraborty & Samir Roy	25/07/2022	05/08/2022	2	Faculty of Engineering & Science disciplines	After completion of this course, the participants will be able to • Deliver descriptive statistics for univariate, bivariate and multivariate data analysis, • Explore correlation and regression analysis (linear, multiple and logistic) • Address Curve fitting with Least Square method, • Demonstrate Testing of Hypothesis for statistical decision making, • Explore data classification and clustering methods. • Get expose hands-on-training using SPSS and Excel software, • Scientific interpretation as required for publication, thesis writing and report generation.
72.	PS27	ICT	Kol	Advanced Pedagogy	Sagarika Pal & Subrata Chattopadhyay	25/07/2022	05/08/2022	2	Faculty of all desciplines	After completing the course the participants will be able to • Use concept map • Design Curriculum • Develop Instructional media • Develop Student Support Systems • Apply techniques for appropriate assessment and evaluation • Introduce problem based learning techniques
73.	PS28	Contact	Guw	Environmental Pollution and Control	Sailendra Nath Mandal	01/08/2022	05/08/2022	1	Faculty and Staff of all disciplines	After attending the programme the participants will be able to acquire 1. knowledge of air pollution, water pollution, noise pollution, parameters, standards, effects 2. skill of handling 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 environmental pollution laboratory, 3. attitude of hands-on-working in the laboratory/field (Plant visit)
74.	CU41	ICT	Kol	Introduction to Software-Defined Networking (SDN)	Rajeev Chatterjee	01/08/2022	05/08/2022	1	Faculty of CSE, IT Computer Application, Electronics, discipline	After successful completion of the program, the participants will be able to • Explain the concept of SDN, • Demonstrate controller management in SDN, • Exhibit the SD based WAN & Mobile Networks, and • Explain Security issues and Back-up Restoration in SDN.
75.	CU42	Contact	Kol	Concept of Software Engineering	Samir Roy & Ranjan Dasgupta	01/08/2022	05/08/2022	1	Faculty of CSE, IT, MCA disciplines	After successful completion of the program, the participants will be able to • explain different quality aspects of a software • critically analyse different software development models • explain design theory

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76.	MGT06	ICT	Kol	People Management & Leadership	Habiba Hussain	01/08/2022	05/08/2022	1	Faculty from all disciplines	After attending the programme, participants will be able to: • Influence others through communication • Work across teams • Lead for collaborative learning • Provide feedback for better understanding • Encourage growth mindset
77.	CU43	ICT	Kol	CAD/CAM	Nirmal Kumar Mandal	01/08/2022	05/08/2022	1	Mechanical, Production, &Industrial	After attending the programme the participants will be able to • Define automation. • Classify automation. • State the essential features of CAD/CAM
78.	SPL05	ICT	Kol	Concept Teaching Of Engineering Mechanics	Dipankar Bose	01/08/2022	12/08/2022	2	Faculty Members from all Engineering Disciplines	After attending the programme the participants will be able to · know various methodologies in concept teaching of Engineering Mechanics · understand principles of statics with applications · understand principles of dynamics with applications
79.	CU44	Contact	Kol	PYTHON Programming	Kinsuk Giri	08/08/2022	19/08/2022	2	All Discipline	On successful completion of the programme the participants will be able to • understand and explain the different aspects of PYTHON • apply PYTHON to solve problems • use PYTHON for visualizations
80.	CU45	ICT	Kol	Analysis and Design of Structures using Software	Mithu Dey	08/08/2022	12/08/2022	1	Faculty of Civil engg and allied braches	After attending the program, participants are expected to be able to • Understand the different methods of structural analysis • Different structural elements (RCC & Steels structures) by Limit State Method. • know the different codal provision for the design • Use of software for analysis.
81.	MGT07	Contact	BBSR	Essentials of Strategic Management	Sukanta Kumar Naskar	08/08/2022	12/08/2022	1	Teachers, Administrators	After attending the programme, the participants will be able to: • Understand the concept of strategic management • Apply the concept of strategic planning • Identify steps of strategic planning • Apply different tools of management
82.	CU46	ICT	Kol	8086 Microprocessor & 8051 Microcontroller	Soumitra Kumar Mandal	08/08/2022	12/08/2022	1	Faculty and Lab. Tech. of Engg. & Polytechnic in EE, ECE, EIE & Allied Branch.	After attending the programme, the participants will be able to • Describe Architecture and programming of 8086 Microprocessor & 8051 Microcontroller • Design interfacing circuits for Microprocessor & Microcontroller based systems • Develop Microprocessor & Microcontroller based projects • Write assembly language programs

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83.	PS29	ICT	Kol	Role of Technical Institutions in Community Development	Sheela Yadav Rai	08/08/2022	12/08/2022	1	All Discipline	After attending the programme the participants will be able to : • Know various Community Development Schemes • Understand Feasibility Report • Prepare Planning Report • Make the Curricula • Estimate the Training cost
84.	SPL01	ICT	Kol	NEP 2020	Urmila Kar	08/08/2022	12/08/2022	1	Faculty from all disciplines	
85.	PS32	Contact	BBSR	Field Practice on Basic Surveying (Chain, Plane Table, Compus, Lavelling) *Instrument will be supplied by the State Authorities.*	Uday Chand Kumar	22/08/2022	26/08/2022	1	Laboraotry Instructor / Technician / Assistant of Civil Engg. and allied branches deptt.	After attending the programme the participants will be able to • Explain basic concepts on basic surveying • Guide students in conducting different field based surveying. • Demonstrate different field practice on Surveying.
86.	PS30	ICT	Kol	Student Mentorship	Habiba Hussain	22/08/2022	26/08/2022	1	Faculty from all disciplines	After attending the programme, participants will be able to: • Analyse role of teacher as a mentor • Identify attributes of 21st century learners • Facilitate learning using different mentorship styles • Encourage growth mindset as a mentor

87.	CU48	Contact and ICT (both)	Kol	Advanced Digital Electronics	Subrata Chattopadhyay	22/08/2022	26/08/2022	1	Faculty from Electrical, Electronics, Instrumentation and allied disciplines	After attending the course the participants will be able to
										• Understand the operation and application of Combinational circuits like
										  o Decoder
										  o Encoder
										  o Multiplexer
										  o Demultiplexer
										• Understand the operation and application of Sequential circuits like
										  o Flip-Flops
										  o Registers
										  o Counters
										• Understand the operation of different digital devices
										  o A/D and D/A converter
										  o Digital Logic Families (TTL, ECL, DTL, CMOS)
										  o Programmable Logic Devices (ROM, PLA, PAL)

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88.	PS77	ICT	Kol	Thesis and Research Paper Writing	Rayapati Subbarao	22/08/2022	26/08/2022	1	Faculty of All Discipline	At the end of the programme, the participants will be to: • Describe the steps involved in writing a thesis. • Identify the scope of a thesis. • Construe the results in a better way. • Derive conclusions from the plots and contours made. • Realize the ways of writing a research paper. • Communicate a paper in their area of research.
89.	PS31	ICT	Kol	NBA Accreditation and SAR Preparation for Engineering Colleges	Arpan Kumar Mondal & Ranjan Dasgupta	22/08/2022	26/08/2022	1	Techical teachers from all disciplines	After attending the course the participants will be able to • Identify the Impact of NBA Accreditation • Prepare Vision, Mission, PEO and PSO • Prepare CO-PO mapping • Learn how to prepare pre-qualifier and SAR. • Practice Criteria 1 to 10 • Understand the washington accord • Understand the essence of CEP and LLL
90.	CU47	Contact	BBSR	Introduction to Technology Enabled Learning	Indrajit Saha	29/08/2022	02/09/2022	1	All Discipline	After attending the course the participants will be able to • describe the National policy regarding Technology in Education • apply the current Technology in online Education • explain the ethical issues in Technology Enable Learning
91.	PS33	ICT	Kol	Induction Training programme Phase II	Urmila Kar	29/08/2022	09/09/2022	2	Faculty members and technicians from all technical institutes	After attending the programme, participants will be able to: • Identify quality parameters in institutional development • Illustrate the process of accreditation for technical institutes • Explain professional values and ethics of teachers • Promote Technology Enable Learning (TEL) • Identify Learning Style of students • Identify style of teaching • Explain the need for active learning for 21st century learners • Plan instruction for active learning • Decide assessment tools for active learning
92.	CU50	ICT	Kol	Power Electronics	Soumitra Kumar Mandal	05/09/2022	09/09/2022	1	Faculty and Lab. Tech. of Engg. & Polytechnic in EE, ECE, EIE & Allied Branch.	After attending the programme, the participants will be able to • Study performance characteristics of Power Devices • Describe operation & control of controlled converters • Applications of converters in Power System
93.	PS34	ICT	Kol	Power Generation from Energy Resources	Sheela Yadav Rai	05/09/2022	09/09/2022	1	All Discipline	After attending the programme the participants will be able to • Understand potential sources of conventional energies for power generation • Describe potential sources of non-conventional energies for power generation • Understand environmental aspects of power generation • Appreciate about various power projects

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94.	PS35	Contact	BBSR	Development of Laboratory Instruction and Manual	Dipankar Bose	05/09/2022	09/09/2022	1	Faculty members of all technical Institutions of Orissa	After attending the programme, the participants will be able to • classify various skills involved in laboratory practices • know various categories of laboratory experiments • write laboratory instruction sheets • Know evaluation techniques
95.	CU51	Contact	Kol	Application of AutoCAD in Engineering & Basic Sciences	Mithu Dey	12/09/2022	16/09/2022	1	Faculty and Staff of all disciplines	After attending the program, participants are expected to be able to • Know the different commands of the Software • Draw the 2D and 3DAppreciate the use of AutoCAD in Engg. And Science
96.	PS36	Contact	Kol	FDP on Curriculum Development Approaches	Sukanta Kumar Naskar	12/09/2022	16/09/2022	1	Teachers, Administrators	After attending the programme, participants will be able to: • Follow the steps in developing / revising the curricula • Appreciate different approaches in developing curricula • Prepare a sample curricula
97.	PS37	Contact	BBSR	Innovation and Startup in Higher Education Institutions	Prasanta Sarkar	12/09/2022	16/09/2022	1	Faculty of Engineering Disciplines	After attending the programme, the participants will be able to • Create awareness on Entrepreneurship development among students and faculty • Promote entrepreneurship • Provide support service fo incubation and startup
98.	PS38	Contact	Kol	Wastewater Engineering Lab	Sailendra Nath Mandal	12/09/2022	23/09/2022	2	Faculty and Staff of all disciplines	After attending the programme the participants will be able to gain and develop 1. knowledge of common wastewater parameters, methods of testing techniques of wastewater and its importance 2. skill of handling conventional and advanced 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 laboratory, 3. attitude of hands-on-working in the laboratory/field(Plant Visit)
99.	CU53	Contact and ICT (both)	Kol	Sensors, Transducers and Signal conditioning	Sagarika Pal	19/09/2022	23/09/2022	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After completing the course the participants will be able to • Differentiate sensors, transducers and actuators • Define & classify different sensors, transducers and actuators in industry • Experiment with different types of sensors and actuators • Explain the concept of Signal conditioning • Apply signal conditioning for various transducers and actuators
100.	PS39	ICT	Kol	NBA Accreditation	Rayapati Subbarao	19/09/2022	23/09/2022	1	Any faculty	At the end of the programme, the participants will be to: • Identify the necessity of Accreditation. • Prepare the requisite documents of Accreditation. • Formulate COs and POs. • Recognize the details of Criteria from i to x.

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101.	PS40	Contact	Guw	Development of Laboratory Instruction and Manual	Subrata Mondal	19/09/2022	23/09/2022	1	Faculty of all disciplines and laboratory technicians	After attending this programme, participants would be able to: • explore the role of laboratory in student learning; • explore development of laboratory exercise; • explore writing of laboratory report; • explore standard operating procedure (SoP) in laboratory; • explore safety aspects in laboratory instruction etc.
102.	PS41	ICT	Kol	Evaluating Students' Performance & Designing Question Papers	Habiba Hussain	19/09/2022	30/09/2022	2	Faculty from all disciplines	After attending the programme, participants will be able to: • Classify the types of evaluation • Identify essential parameters of OBA • Analyse the outcomes of continuous assessment • Develop tools for assessment • Prepare ToS • Draft question paper
103.	CU54	ICT	Kol	Fundamentals of Machine Learning and Deep Learning	Indrajit Saha	26/09/2022	30/09/2022	1	CSE, IT, BCA, MCA ECE, EE, ME, CIVIL	After attending the program, the participants will be able to • describe the fundamentals of Machine Learning (ML) • apply ML for clustering, classification and regression • explain machine learning in classroom
104.	PS42	ICT	Kol	National Education Policy (NEP) 2020 – Reforms in Higher Education	Urmila Kar	26/09/2022	30/09/2022	1	Faculty members, Technicians and Administrators from all AICTE approved institutes	After attending the programme, participants will be able to: • explain the guiding principles of NEP 2020. • explain new vision for India's higher education system. • explain the major reforms identified in NEP 2020. • identify the role of teachers of Higher Education Institutes (HEIs) as revealed in NEP 2020.
105.	CU55	ICT	Kol	MATLAB Applications in Engineering	Soumitra Kumar Mandal	26/09/2022	30/09/2022	1	Faculty and Lab. Tech. of Engg. & Polytechnic in EE, ECE, EIE & Allied Branch.	After attending the programme, the participants will be able to • Understand fundamentals of MATLAB • Implement MATLAB Applications in Engineering • Explain the different aspect of MATLAB & Simulink • Solve simple problem using MATLAB programming • Develop simple model using Simulink • Use MATLAB in analysis, design and simulation of Engineering problems

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106.	CU56	ICT	Kol	Data Analytics with PYTHON	Kinsuk Giri & Chandan Chakrabarty	10/10/2022	14/10/2022	1	All Discipline	On successful completion of the programme the participants will be able to • Develop an understanding of basic concepts of Data science. • Explore an ability to analyse data from a statistical perspective. • Explain and implement Data Visualization Techniques. • Demonstrate Classification and clustering processes. • Get an exposure on basics of R statistical Programming and R Studio. • Create data analytical pipelines and applications in R statistical programming. • Develop familiarity with the R data science ecosystem for class room teaching, practicing and project based learning.
107.	PS43	Contact	BBSR	NBA Accreditation and SAR Preparation	Rayapati Subbarao	10/10/2022	14/10/2022	1	Any faculty	At the end of the programme, the participants will be to: • Identify the Impact of NBA Accreditation. • Prepare Vision, Mission, Program Educational Objectives. • Prepare Outcomes and Program Outcomes. • Learn how to prepare SAR. • Practice Criteria i to x.
108.	CU57	ICT	Kol	Modelling, Analysis and Design of Buildings with a Versatile Structural Engineering Software	Santanu Bhanja	17/10/2022	21/10/2022	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to • Be acquainted with the basic methodology of software application in structural analysis and design of RC buildings • Apply latest IS codal provisions in analysis, design and detailing like IS 456, 1893, 875, 13920 etc. • Know the basic features of a universally accepted standard software-ETABS • Analyse, Design and Detail real life multi-storeyed buildings
109.	PS44	ICT	Kol	Wastewater Treatment Technology	Sailendra Nath Mandal	17/10/2022	21/10/2022	1	Faculty and Staff of all disciplines	After attending the programme the participants will be able to acquire 1. knowledge of wastewater contaminants, conventional and advanced wastewater treatment stages, ZLD 2. skill of handling conventional and advanced 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 treatment laboratory, 3. attitude of hands-on-working in the laboratory/field(Plant Visit).
110.	CU58	ICT	Kol	Introduction to Image Processing	Indrajit Saha	17/10/2022	21/10/2022	1	CSE, IT, BCA, MCA ECE, EE, ME, CIVIL	After attending the program, the participants will be able to • describe the fundamentals of image processing (IP) in MATLAB • apply MATLAB commands to do IP • (3) explain image processing in classroom

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111.	CU59	ICT	Kol	Network Infrastructure and Cloud Security	Rajeev Chatterjee & Ranjan Dasgupta	17/10/2022	21/10/2022	1	Faculty of CSE, IT Computer Application, Electronics, discipline	After successful completion of the program, the participants will be able to: • Explain the concept of Computer Network and Internetwork • Illustrate Principles of Security • Describe ISO27001: 2013 • Demonstrate Network infrastructure elements • Explain Security Issues of Structure Cloud • Explain the concept of network security • Enlighten Application level security
112.	CU60	ICT	Kol	Refresher Course on Product Design	Sukanta Kumar Naskar	17/10/2022	21/10/2022	1	Teachers from Engineering background	After attending the programme, participants will be able to: • Conceptualize the process of PD • Identify components of Product Design • Practice few components of PD
113.	PS45	ICT	Kol	Assessing Higher Educational Institutes (HEIs)	Urmila Kar	17/10/2022	21/10/2022	1	Faculty members, Technicians and Administrators from all AICTE approved institutes	After attending the programme, participants will be able to: • Develop the institutional management system as per review requirements. • Assess academic process based on review criteria. • Ensure academic contributions through human resource development • Explain the process for attaining autonomous status of the institute based on guidelines of autonomy granting bodies • Prepare the institute for external review
114.	CU61	Contact	BBSR	Application of MATLAB Control System, Image Processing and Fuzzy Logic Tool box	Sagarika Pal	17/10/2022	21/10/2022	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After completing the course the participant will be able to • Use MATLAB commands • Apply Control System Tool Box Commands • Illustrate Simulink Modelling techniques • Apply Image processing Tool Box Commands • Apply Fuzzy Logic Tool Box Create GUI using GUIDE
115.	PS46	Contact	Guw	Induction Training	Sheela Yadav Rai	17/10/2022	21/10/2022	1	All Discipline	After attending the programme the participants will be able to • Formulate the lesson plan • Prepare the instructional objectives • Identify the principles of evaluation • Distinguish between types of evaluation
116.	CU62	Contact	Kol	Applications of Machine Learning in Engineering	Nirmal Kumar Mandal	17/10/2022	21/10/2022	1	All Disciplines	After attending the programme the participants will be able to • Explain supervised and unsupervised learning • Apply Multinomial Logistic • Perform regressions, • Perform Monte Carlo Simulation (MCS)

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117.	CU63	ICT	Kol	8085 and 8086 Microprocessor	Soumitra Kumar Mandal	24/10/2022	28/10/2022	1	Faculty and Lab. Tech. of Engg. & Polytechnic in EE, ECE, EIE & Allied Branch.	After attending the programme, the participants will be able to • Describe Architecture and programming of 8085 and 8086 Microprocessor • Design interfacing circuits for Microprocessor based systems • Develop Microprocessor based projects • Write assembly language programs
118.	CU64	Contact	Kol	Mobile and Wireless Network	Rajeev Chatterjee	31/10/2022	04/11/2022	1	Faculty of CSE, IT Computer Application, Electronics, discipline	After successful completion of the program, the participants will be able to • Explain the basic concept of mobile and wireless network • Design of Enterprise Wireless LAN • Explain Mobile IP Network • Explain IdAM system
119.	SPL06	ICT	Kol	Assessment, Evaluation and Preparing Question Papers	Sagarika Pal	01/11/2022	03/11/2022	3 days	Faculty of All Discipline	
120.	PS47	ICT	Kol	Values and Ethics for Professional	Mithu Dey	07/11/2022	11/11/2022	1	Faculty and Staff of all disciplines	After attending the program, participants are expected to be able to • Explain the concept of Professional Values, Ethics and Attitude • Identify issues and challenges in ethical practice • Identify the ways and means for ensuring ethical behaviour by teachers • Practice the roles of 'Technical Teachers as Professionals' in establishing the; Guru-Shisya Parampara' in present context • Describe the roles of technical teachers in sustainibility development
121.	CU65	Contact	Kol	Topics in Algorithm	Samir Roy & Ranjan Dasgupta	07/11/2022	11/11/2022	1	Faculty of CSE, IT, MCA disciplines	After successful completion of the program, the participants will be able to • Explain the fundamental concepts of analysis of algorithms • Identify different approaches to deal with computational problems
122.	CU66	ICT	Kol	Solar Photovoltaic	Soumitra Kumar Mandal	07/11/2022	11/11/2022	1	Faculty and Lab. Tech. of Engg. & Polytechnic in EE, ECE, EIE & Allied Branch.	After attending the programme, the participants will be able to • Describe the principles of Solar Cell • Identify the various parameters of Solar PV system • Develop an in-depth knowledge about Solar PV Module by performing basic experiments & through field visit • Modelling of Solar PV system • Operation and Control of Solar PV system • Understand fundamentals of Smart grid

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123.	MGT08	Contact	Guw	Management Issues of Labrotary and Workshop Classes	Dipankar Bose	07/11/2022	11/11/2022	1	Faculty members of all technical Institutions of N.E.Region	After attending the programme the participants will be able to • know various management issues of conducting laboratory and workshop classes • understand the effective techniques of management of classroom, machines/equipment and manpower • state different safety aspects
124.	CU67	ICT	Kol	Institutional Management	Uday Chand Kumar	14/11/2022	18/11/2022	1	Faculty and Staff of all Disciplines	After attending the programme the participants will be able to • Explore Management principles and its applications • Identify quality parameters in institutional development • Able to identify management Tools. • Problem Solving and Decisions Making Skills.
125.	PS48	ICT	Kol	Solid and Hazardous Waste Management	Sailendra Nath Mandal	14/11/2022	18/11/2022	1	Faculty and Staff of all disciplines	After attending the programme the participants will be able to acquire 1. knowledge of solid waste: types, effect, solid and hazardous waste management concept, characterization of solid waste 2. skill of handling conventional and advanced 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 solid waste characterization laboratory, 3. attitude of hands-on-working in the laboratory/field (Plant visit)
126.	PS49	ICT	Kol	Induction Training	Sheela Yadav Rai	14/11/2022	18/11/2022	1	All Discipline	After attending the programme the participants will be able to • Formulate the lesson plan • Prepare the instructional objectives • Identify the principles of evaluation • Distinguish between types of evaluation
127.	CU68	ICT	Kol	Artificial Intelligence for Biomedical Engineering	Chandan Chakraborty	14/11/2022	25/11/2022	2	Faculty of Engineering & Science, Allied disciplines	After attending the course, the participants would be able to • Develop an understanding of fundamentals of Artificial Intelligence. • Explain and implement Data Visualization Techniques. • Demonstrate Machine Learning techniques. • Application of AI in Digital Medical Data. • Explore the various case studies in Biomedical Engineering • Demonstrate Computer Aided Diagnosis using Medical Images

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128.	PS50	ICT	Kol	Introduction to Advanced Pedagogy	Indrajit Saha, Sagarika Pal, Kinsuk Giri & Arpan Kumar Mondal	14/11/2022	25/11/2022	2	Techical teachers from all disciplines	After attending the program, the participants will be able to • Explain the need of Advanced Pedagogy • Understand the fundamental strategies of hybrid pedagogy • Explain different Advanced Pedagogy Approaches • Understand the principles of Blended Learning approaches • Apply Technology Enable Learning techniques • Study Flipped Teaching and Learning • Analyse Design Thinking in Pedagogy • Understand Education 4.0 • Develop Rubrics for Assessment in Advanced Pedagogy • Plan instruction • Incorporate different principles for effective delivery
129.	PS51	ICT	Kol	Soft Skills for Teachers	Habiba Hussain	21/11/2022	25/11/2022	1	Faculty from all disciplines	After attending the programme, participants will be able to: • Distingush between hard & soft skills • Identify essential soft skills for teachers • Categorise instructional strategies to encourage soft skills development in learners • Relate soft skills to 21st century learning effectiveness
130.	CU69	Contact and ICT (both)	Kol	Bio-Medical Engineering	Subrata Chattopadhyay	21/11/2022	25/11/2022	1	Faculty from Electrical, Mechanical, Electronics, Instrumentation and allied disciplines	After attending the course the participants will be able to • Understand Cells, Digestive System, Excretory System, Endocrinology • Describe Origins of electro-physiological signal and their characteristics • Design practical clinical sensors and transducers • Understand the ECG, EEG, EMG and their Electrodes • Understand the operation of X-ray, Fluoroscopy and Radiography, Pacemaker, Magnetic Resonance Imaging etc. • Explain Electric shock hazards and safety devices
131.	PS78	ICT	Kol	Thesis and Research Paper Writing	Rayapati Subbarao	21/11/2022	25/11/2022	1	Faculty of All Discipline	At the end of the programme, the participants will be to: • Describe the steps involved in writing a thesis. • Identify the scope of a thesis. • Construe the results in a better way. • Derive conclusions from the plots and contours made. • Realize the ways of writing a research paper. • Communicate a paper in their area of research.
132.	MGT09	ICT	Kol	Institutional Management and Administrative Procedures	Sukanta Kumar Naskar	21/11/2022	25/11/2022	1	Principals/ DTEs Officials.	After attending the course the participants will be able to • Contribute effectively for developing the institute • Identify components of institutional management • appreciate administrative procedures • Contribute administrative activities effectively

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133.	CU71	Contact	Kol	Mechanical Workshop Practice	Arpan Kumar Mondal	28/11/2022	09/12/2022	2	Techical Teachers and Staff from Mechanical Engineering and allied disciplines	After attending the programme the participants will be able to • Classify various components of mechanical workshop. • Understand the principles of various metal working processes. • Practice on welding, forming, machine tools, CNC, mechanical testing etc
134.	CU72	Contact	BBSR	Philosophy of Limit State Method of RC Design as per Indian Standards with Introduction to Performance Based Design	Santanu Bhanja	28/11/2022	02/12/2022		Faculty of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to • Be acquainted with the fundamentals of Limit State Method of Design as per Indian Standards IS 456-2000 and IS 13920-2016 highlighting the design philosophy of prescriptive method of design • Be introduced to Performance based seismic design • Be acquainted with the shortcomings of the standards in dealing with high grades of concrete and identify the grades of steel that are suitable for seismic design • Be introduced to overall design philosophy rather than mechanically using some design aids or charts • Analyze, Design and Detail foundations for real life multistoried buildings using the basic features of different software
135.	PS52	Contact	Kol	ICT Enabled Learning in 21st Century	Rajeev Chatterjee, Samir Roy & Ranjan Dasgupta	28/11/2022	02/12/2022	1	Faculty of all disciplines	After successful completion of the program, the participants will be able to • Explain the changing scenario of education in 21st century • Explain the concept of e-learning / TEL • Exhibit and demonstrate the process of e-content creation for MOOCs based e-content • Demonstrate ethics, plagiarism, etc. in 21st century • Explain lifelong learning • Explain the development of virtual Laboratory
136.	PS53	Contact	Kol	Active Learning under Engineering Education	Urmila Kar	28/11/2022	02/12/2022	1	Faculty members and technicians from all technical institutes	After attending the programme, participants will be able to: • identify features of learning-teaching system under engineering education • explain the need for active learning • analyse the learning styles of engineering students • identify innovative approaches for active learning • illustrate the features of Problem Based Learning and Project Based Learning • identify the way to incorporate active learning and life-long learning into engineering curricula

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137.	CU73	Contact	Kol	Object Oriented Design & Programming in C++	Rajeev Chatterjee & Samir Roy	05/12/2022	09/12/2022	1	Faculty of CSE, IT Computer Application, Electronics, Electrical, Mathematics disciplines	After successful completion of the program, the participants will be able to • Create an Object-Oriented Model of a software, • Use of UML for Software Design • Write a Program in C++ to solve a computational problem • Compile, debug and execute a program in C++ • Apply objects, classes, inheritance, polymorphism etc. to implement object oriented programming.
138.	CU74	Contact and ICT (both)	Kol	Industrial Process Control	Sagarika Pal	05/12/2022	09/12/2022	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After completing the course the participant will be able to • Explain Conventional control techniques for industrial automation • Describe complex controls such as ratio, cascade, feed forward etc. • Develop programme on PLC and DCS for process automation • Explain SCADA systems for various process control systems
139.	PS54	Contact	Kol	Development of Laboratory Instruction and Manual for Mechanical Engineering	Dipankar Bose	05/12/2022	16/12/2022	2	Faculty members and Technical Staff Members of Technical Institutions with Mechanical Engineering Specialization	After attending the programme, the participants will be able to • classify various skills involved in laboratory practices of Mechanical Engineering • know various categories of laboratory experiments Mechanical Engineering • hands on practice • write laboratory instruction sheets • Know evaluation techniques
140.	CU75	Contact	Kol	Laboratory Practice on Bitumen	Uday Chand Kumar	12/12/2022	16/12/2022	1	Laboraotry Instructor / Technician / Assistant of Civil Engg. and allied branches deptt.	After attending the programme the participants will be able to • Explain basic concepts on laboratory tests of Bitumen • Guide students in conducting different laboratory experiments for determination of various parameters. • Demonstrate different tests on Bitumen
141.	CU76	ICT	Kol	Introduction to Computational Intelligence	Indrajit Saha	12/12/2022	16/12/2022	1	CSE, IT, BCA, MCA ECE, EE, ME, CIVIL	After attending the program, the participants will be able to • describe the fundamentals of Computational Intelligence (CI) • apply CI for complex computational problem • explain computational intelligence in classroom

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142.	PS55	Contact	BBSR	Choice Based Credit System (CBCS) and Student's Performance Evaluation	Chandan Chakraborty	12/12/2022	16/12/2022	1	Faculty of all disciplines	On successful completion of the course the participant will be able to • Understand the importance and structure of Choice Based Credit System (CBCS) in Technical Education. • Explore the meaning of Core, Discipline Specific Elective, Skill and Ability Enhancement Core Courses. • Develop an understanding of various assessment & evaluation methods, • Design and practice of Rubrics for student's performance evaluation
143.	PS56	ICT	Kol	Developing Research Presentations	Habiba Hussain	12/12/2022	16/12/2022	1	Faculty from all disciplines	After attending the program, the participants will be able to • Characterise oral and written research presentations • Identify steps involved in preparing a research paper • Summarise results
144.	CU77	ICT	Kol	Electricity Rules and Code of Practices	Prasanta Sarkar	12/12/2022	16/12/2022	1	Faculty and Technical Staff of all Disciplines	After attending the programme, the participants will be able to • Familiarize with Indian Electricity Act and National Electric Code • Understand fundamental principles for electrical installation • Design electrical installation • Enforce safety in electrical work
145.	CU78	ICT	Kol	PLC and LABVIEW	Soumitra Kumar Mandal	12/12/2022	16/12/2022	1	Faculty and Lab. Tech. of Engg. & Polytechnic in EE, ECE, EIE & Allied Branch.	After attending the programme, the participants will be able to • Describe the architecture of PLC • Develop PLC Programs • Apply PLC in Industrial Automation • Understand fundamentals of LABVIEW • Implement LABVIEW Applications
146.	PS57	ICT	Kol	Community Development through Technical Institutes	Sheela Yadav Rai	12/12/2022	16/12/2022	1	All Discipline	After attending the programme the participants will be able to : • Know various Community Development Schemes • Understand Feasibility Report • Prepare Reports • Make linkages with organisations
147.	CU79	Contact	Kol	Fundamental and Applications of Nanomaterials	Subrata Mondal	12/12/2022	23/12/2022	2	Faculty of all disciplines	After attending this program, participants would be able to: • explore the concept of nanotechnology; • describe the fundamental of nanoscale materials' properties; • identify various carbon based nanomaterials; • describe applications of nanomaterials in various fields; • explain the nano toxicology and nano safety etc.

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148.	PS58	Contact	Kol	Academic Writing and Tools	Rayapati Subbarao, Kinsuk Giri & Samir Roy	12/12/2022	23/12/2022	2	All Discipline	At the end of the programme, the participants will be to: • Identify the different ways of presenting an academic report. • Detail the steps involved in writing a research article. • Obtain the skills of writing a thesis or research report. • Learn the ways of using different tools for writing a thesis. • Apply different tools for academic purposes.
149.	CU80	ICT	Kol	Analysis and Design of Structures by Limit State Method using Software.	Mithu Dey	19/12/2022	23/12/2022	1	Civil engg and allied braches	After attending the program, participants are expected to be able to • Appreciate the importance of the Limit State Method. • Compare with Working Stress Method. • Understand the different methods of structural analysis • Design the different structural elements (RCC & Steels structures) by Limit State Method. • Use of software to drawing analysis and design the different Structural elements
150.	MGT10	Contact	Guw	FDP on Essentials of HRM	Sukanta Kumar Naskar	19/12/2022	23/12/2022	1	Teachers, Administrators and Support Staff	After attending the programme, participants will be able to: • Identify the components of HRM • Practice the components of HRM in their respective organization
151.	PS59	ICT	Kol	Designing Direct and Indirect Assessment Tools	Urmila Kar	19/12/2022	23/12/2022	1	Faculty members and technicians from all technical institutes.	After attending the programme, participants will be able to: • explain the need for assessment of learning • distinguish between measurement, assessment and evaluation of student learning • decide assessment strategies based on types and purposes of Assessment and Evaluation • differentiate between direct and indirect assessment tools • decide techniques for assessment of learning outcomes in different domains • design appropriate tools for learning assessment • designing question paper • designing tools for skill assessment • designing rubrics for assessment • designing tools for indirect assessment • Validate assessment tools
152.	CU81	Contact	Kol	TIG/MIG and Plasma Welding Processes and Testing	Arpan Kumar Mondal	19/12/2022	30/12/2022	2	Techical teachers and staff from Mechanical Engineering and allied disciplines	After attending the programme the participants will be able to • Explain the principles of advanced welding processes. • Perform independently various advanced welding processes: TIG, MIG, Pulsed TIG, Medium and Soft Plasma Arc Welding • Understand the physics of welding • Perform the various advanced welding processes • Perform varios testing of welds

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153.	CU82	Contact	Guw	PLC Programming and its Applications	Sagarika Pal	19/12/2022	23/12/2022	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After completing the course the participant will be able to • Explain working principle of PLC • Describe architecture of PLC system • Develop PLC programmes • Apply PLC in various system automation
154.	CU83	ICT	Kol	Course on Commentary for Code on Ductility Design and Detailing of RC structures subjected to Seismic Forces - IS 13920 2016	Santanu Bhanja	26/12/2022	30/12/2022	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to • Understand the fundamental principles of RC design as per Indian Standards - the fundamentals of Limit State Method and need for ductility design • Interpret some of the important clauses of the code in their true letter and spirit • Implement the codal clauses in a better manner for design and detailing of Earthquake Resistant Structures • Identify the major design and detailing considerations • Apply a standard software for designing structures
155.	PS60	Contact	BBSR	Environmental Pollution and Control	Sailendra Nath Mandal	26/12/2022	30/12/2022	1	Faculty and Staff of all disciplines	After attending the programme the participants will be able to acquire 1. knowledge of air pollution, water pollution, noise pollution, parameters, standards, effects 2. skill of handling 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 environmental pollution laboratory, 3. attitude of hands-on-working in the laboratory/field (Plant visit)
156.	CU84	Contact	Kol	Applied Chemistry Lab	Sailendra Nath Mandal	09/01/2023	13/01/2023	1	Faculty and Staff of chemistry	After attending the programme the participants will be able to acquire 1. knowledge of major applied chemistry experiment and practical significance of each experiment. 2. skill of handling conventional and advanced 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 applied chemistry laboratory, 3. attitude of hands-on-working in the laboratory/field (Plant Visit)
157.	PS61	Contact	Guw	Quality Assurance through Accreditation (NBA Guidelines)	Urmila Kar	09/01/2023	13/01/2023	1	Faculty members and technicians from all technical institutes	After attending the programme, participants will be able to: • identify quality issues of Technical Education System • explain the need for and features of Outcome Based Education (OBE) • justify the requirement of Outcome Based Accreditation (OBA) • identify parameters for OBA • explain the process of preparing self-assessment report (SAR) for Accreditation by NBA

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158.	CU85	Contact	Kol	Non Traditional Machining Processes	Dipankar Bose	09/01/2023	13/01/2023	1	Faculty members of Technical Institutions with ME, Production ,Automobile Engineering Specialization	After attending the programme the participants will be able to • explain various types of non-traditional machining processes • understand working principles of different non-traditional machining processes • hands on practices on various non-traditional machining processes
159.	CU86	ICT	Kol	Applications of LABVIEW & MATLAB in Engineering	Soumitra Kumar Mandal	09/01/2023	13/01/2023	1	Faculty and Lab. Tech. of Engg. & Polytechnic in EE, ECE, EIE & Allied Branch.	After attending the programme, the participants will be able to • Understand fundamentals of LABVIEW • Implement LABVIEW Applications in Engineering • Explain the different aspect of MATLAB & Simulink • Solve simple problem using MATLAB programming • Develop simple model using Simulink • Use MATLAB in analysis, design and simulation of Engineering problems
160.	CU87	Contact	Kol	Mathematical Foundation of Computer Science	Kinsuk Giri & Samir Roy	09/01/2023	20/01/2023	2	All Discipline	On successful completion of the programme the participants will be able to • able to explain mathematical/logical foundation of computations • model computational tasks in terms of mathematical formalism • apply appropriate mathematical tools to solve computational problem
161.	CU88	Contact	Kol	Analysis and Design of Structures using latest version of a Structural Engineering Software	Santanu Bhanja	16/01/2023	20/01/2023	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to • Understand the role of software in structural analysis and design • Know the basic features of a universally accepted software- STAAD.Pro Connect- latest version along with RCDC • Apply IS Codal provisions in analysis, design and detailing - IS 456, 1893, 875, 13920 etc. • Analyse, design and detail real-life multi- storeyed buildings, civil engineering structures • Analyse and design foundations
162.	PS62	Contact	Kol	Laboratory practices on Civil Engineering Materials *(Concrete and Road Material)*	Mithu Dey	16/01/2023	20/01/2023	1	Civil engg and allied braches	After attending the program, participants are expected to be able to • Develop Skill & Knowledge on the fundamentals involved in testing of various ingredients of Civil Engg. Materials. • Familiar with the use of NDT equipments
163.	CU89	Contact	Kol	Fundamentals of Image Editing and 2D Animation	Indrajit Saha	16/01/2023	20/01/2023	1	All Discipline	After attending the program, the participants will be able to • edit images and create animation • get exposure in various multimedia related software • prepare a small computer based training material

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164.	PS63	Contact	BBSR	Induction Training	Habiba Hussain	16/01/2023	20/01/2023	1	Faculty from all disciplines	After attending the programme, participants will be able to: • Distinguish the different roles of a teacher • Identify essential teaching skill components • Plan instruction using different strategies • Integrate media and/or technology in teaching • Assess learning
165.	CU90	Contact	Guw	Modern Industrial Control Syastem	Subrata Chattopadhyay	16/01/2023	20/01/2023	1	Faculty from Electrical, Mechanical, Electronics, Instrumentation and allied disciplines	After attending the course the participants will be able to • Familiar with closed loop control system • Understand the pressure, Temperature, Flow & Level Measurement system • Know hazardous area classification • Utilize the electrical instruments in hazardous area in process plant • Design the conventional complex control system like ratio, cascade, feed forward, selective, override etc • Apply the control system in distillation column in industry • Know the fundamental of PLC, DCS and SCADA
166.	PS64	Contact	Kol	Estimating and Costing of Non-conventional Energies	Sheela Yadav Rai	16/01/2023	20/01/2023	1	All Discipline	After attending the programme the participants will be able to : • Describe various type of Non-conventional Energies Sources • Understand the scope of Solar energy, Solar Thermal Conversion, Solar Collector, Wind Energy • Estimating & costing of various energies
167.	PS65	ICT	Kol	Advanced Pedagogy	Sukanta Kumar Naskar & Arpan Kumar Mondal	16/01/2023	27/01/2023	2	Techical teachers from all disciplines	After attending the program, the participants will be able to • Explain the need of Advanced Pedagogy • Understand the fundamental strategies of advanced pedagogy techniques • Explain different Advanced Pedagogy Approaches • Plan instruction • Incorporate different principles for effective delivery and assessment
168.	SPL04	ICT	Kol	Ecology and Environmental Studies	Uday Chand Kumar	16/01/2023	20/01/2023	1	Faculty and Staff from all disciplines	After attending the program, the participants will be able to • Define the Ecology • Describe the different causes of air, water and soil pollution • Explain the low cost sanitation • Describe the solid waste management.
169.	CU91	Contact	BBSR	Applied Optimization of Engineering Systems with MATLAB	Nirmal Kumar Mandal	23/01/2023	27/01/2023	1	All Disciplines	After attending the programme the participants will be able to • Model a physical system • Explain linear and nonlinear regression • Optimise a function using GA, PSO

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170.	PS66	Contact	Kol	Thesis and Research paper writing	Rayapati Subbarao	23/01/2023	27/01/2023	1	Any faculty	At the end of the programme, the participants will be to: • Identify stages in thesis writing. • Discuss the results in a refined way. • Learn the ways of writing and communicating a research paper.
171.	PS67	Contact	Guw	NBA Accreditation and SAR Preparation for Polytecnics	Arpan Kumar Mondal & Ranjan Dasgupta	30/01/2023	03/02/2023	1	Techical teachers from all disciplines	After attending the course the participants will be able to • Identify the Impact of NBA Accreditation • Prepare Vision, Mission, PEO and PSO • Prepare CO-PO mapping • Learn how to prepare pre-qualifier and SAR. • Practice Criteria 1 to 10 • Understand the washington accord
172.	SPL07	ICT	Kol	Rethinking Curricullam in line with NEP 2022	Habiba Hussain	01/02/2023	03/02/2023	3 days	Faculty of all disciplines	After attending the course the participants will be able to • analyse the intricacies in curricular structure in technical education • reflect upon the existing pedagogical practices • integrate components for creating a holistic learning culture
173.	PS68	Contact	BBSR	Renewable Energy Sources and Emerging Technologies	Sheela Yadav Rai	06/02/2023	10/02/2023	1	All Discipline	After attending the programme the participants will be able to: • Understand Energy Sources and their utilization • Explain Environmental aspects of electric energies generation • Understand the scope of Solar Thermal Conversion and Solar Photovoltaic system • Describe about wind energy, Geothermal energy and Biomass • Apply Non-conventional energies through various agencies • viz. WBREDA
174.	PS69	Contact	Guw	NBA Accreditation and SAR Preparation	Rayapati Subbarao	06/02/2023	10/02/2023	1	All Discipline	At the end of the programme, the participants will be to: • Identify the Impact of NBA Accreditation. • Prepare Vision, Mission, Program Educational Objectives. • List out Course and Program Outcomes. • Learn how to prepare SAR. • Practice Criteria i to x.

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175.	MGT11	Contact	Guw	Research Methodology	Chandan Chakraborty	06/02/2023	10/02/2023	1	Faculty of all disciplines	After completion of this course the participants will be competent enough to • Develop understanding of the research design, interdisciplinary research in the line of NEP 2020. • Explore about systematic literature review with meta-analysis, PRISMA • Gain knowledge in data analytics using statistical methods • Hands-on-training with Excel and SPSS for data analysis. • Paper writing, thesis reporting etc.
176.	CU92	ICT	Kol	Machine Learning with PYTHON	Kinsuk Giri & Chandan Chakrabarty	13/02/2023	17/02/2023	1	All Discipline	On successful completion of the programme the participants will be will be accomplished with • The notion of Machine Learning and its impact on future employment • Overview of Python programming • Exposure of supervised and unsupervised ML techniques • Hands-on-practice of ML algorithms implementation using Python • Explore for problem solving
177.	CU93	Contact and ICT (both)	Kol	LABVIEW Application in Engineering	Sagarika Pal	13/02/2023	17/02/2023	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After completing the course the participant will be able to • Explain features of LABVIEW • Create VI files • Apply VI files in various fields • Apply Data Acquisition System in LABVIEW
178.	PS70	Contact	Guw	Innovation and Startup in Higher Education Institutions	Prasanta Sarkar	13/02/2023	17/02/2023	1	Faculty of all Disciplines	After attending the programme, the participants will be able to • Create awareness on Entrepreneurship • development among students and faculty • Promote entrepreneurship • Provide support service fo incubation and startup
179.	CU94	Contact	Kol	Application of AutoCAD in Engineering & Basic Sciences	Mithu Dey	20/02/2023	24/02/2023	1	Faculty and Staff of all disciplines	After attending the program, participants are expected to be able to • Know the different commands of the Software • Draw the 2D and 3DAppreciate the use of AutoCAD in Engg. And Science

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180.	CU95	Contact	BBSR	Analysis and Design of structures using a powerful Structural Engineering Software	Santanu Bhanja	20/02/2023	24/02/2023	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to • Understand the role of software in structural analysis and design • Know the basic features of a universally accepted software- STAAD.Pro Connect- latest version along with RCDC • Apply IS Codal provisions in analysis, design and detailing - IS 456, 1893, 875, 13920 etc. • Analyse, design and detail real-life multi- storeyed buildings, civil engineering structures • Analyse and design foundations
181.	CU96	ICT	Guw	Fundamentals of Technology Enabled Learning	Indrajit Saha	20/02/2023	24/02/2023	1	All Discipline	After attending the course the participants will be able to • describe the National policy regarding Technology in Education • apply the current Technology in online Education • explain the ethical issues in Technology Enable Learning
182.	PS71	ICT	Kol	FDP on Lifeskill Development	D. P. Mishra & Sukanta Kumar Naskar	20/02/2023	24/02/2023	1	Teachers, Technician and Administrator	
183.	PS72	Contact	BBSR	NBA Accreditation and SAR Preparation for Polytecnics and Engineering Colleges	Arpan Kumar Mondal & Ranjan Dasgupta	27/02/2023	03/03/2023	1	Techical teachers from all disciplines	After attending the course the participants will be able to • Identify the Impact of NBA Accreditation • Prepare Vision, Mission, PEO and PSO • Prepare CO-PO mapping • Learn how to prepare pre-qualifier and SAR. • Practice Criteria 1 to 10 • Understand the washington accord • Understand the esence of CEP and LLL
184.	CU97	Contact	Guw	Engineering Optimization	Kinsuk Giri	06/03/2023	10/03/2023	1	All Discipline	On successful completion of the programme the participants will be able to • get exposure in Optimization • describe the fundamentals of Optimization techniques • apply tools for problem solving in Optimization
185.	PS73	Contact	BBSR	National Education Policy (NEP) 2020 – Reforms in Higher Education	Urmila Kar	06/03/2023	10/03/2023	1	Faculty members and technicians from all AICTE approved Institutes	After attending the programme, participants will be able to: • explain the guiding principles of NEP 2020. • explain new vision for India's higher education system. • explain the major reforms identified in NEP 2020. • identify the role of teachers of Higher Education Institutes (HEIs) as revealed in NEP 2020.

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186.	CU98	Contact and ICT (both)	Kol	Refresher course on MATLAB & LABVIEW Applications	Sagarika Pal	06/03/2023	10/03/2023	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After completing the course the participant will be able to • Use MATLAB commands, SIMULINK, Control system tool Box • Develop GUI files for interraction with MATLAB Toolbox • Explain features of LABVIEW • Create VI files • Apply VI files in various fields • Apply Data Acquisition System in LABVIEW
187.	PS79	ICT	Kol	NBA Accreditation with Document Preparation	Rayapati Subbarao	06/03/2023	10/03/2023	1	Faculty of All Discipline	At the end of the programme, the participants will be to: • Identify the Impact of NBA Accreditation. • Prepare Vision, Mission, Program Educational Objectives. • Prepare Outcomes and Program Outcomes. • Learn how to prepare SAR. • Practice Criteria i to x.
188.	CU100	ICT	Kol	Vibration and Its Effects on Engineering Systems	Nirmal Kumar Mandal & Santanu Bhanja	06/03/2023	10/03/2023	1	Faculty of Engineering with preference to Mechanical, Civil, Architecture & allied disciplines	After attending the course, the participants will be able to • Understand different types of vibrations • Understand the importance of vibration analysis in Mechanical and Civil Engineering • Understand the application of vibration analysis in design of machines • Identify the major design and detailing considerations of structures subjected to vibrations
189.	CU101	Contact and ICT (both)	Kol	Teaching – Learning Process using Instructional Media	Subrata Chattopadhyay & Sagarika Pal	13/03/2023	17/03/2023		Faculty from any disciplines	After attending the course the participants will be able to • Understand the utility of instructional media • Know the types of instructional media and its advantages • Familiar with the computer to be used as instructional media and its advantages and limitations • Understand the courseware • Classify the Different types of courseware • Application of Computer assisted instruction • Know the feathers of CAI • Explanation of different types of CAI • A model class with CAI
190.	PS74	Contact	Guw	Induction Training	Habiba Hussain	13/03/2023	17/03/2023	1	Faculty from all disciplines	After attending the programme, participants will be able to: • Distinguish the different roles of a teacher • Identify essential teaching skill components • Plan instruction using different strategies • Integrate media and/or technology in teaching • Assess learning

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191.	PS75	Contact	BBSR	Waste Water Treatment: Pollution Control and Reuse	Subrata Mondal	13/03/2023	17/03/2023	1	Faculty of Chemical Engg. Environmental Engg., Science, Textiles Engg., and allied disciplines	After attending this program, participants would be able to: • explore the characteristics of various industrials wastewater; • describe the wastewater treatment using low cost adsorbents and nano sized adsorbents; • describe the wastewater treatment using membrane technology etc. • explain the characterizations of wastewater;
192.	CU52	Contact	Kol	Laboratory Practice on Coarse Aggregate and Fine Aggregate	Uday Chand Kumar	13/03/2023	17/03/2023	1	Laboraotry Instructor / Technician / Assistant of Civil Engg. and allied branches deptt.	After attending the programme the participants will be able to • Explain basic concepts on laboratory tests of Aggregates • Guide students in conducting different laboratory experiments for determination of various parameters. • Demonstrate different tests on aggregates.
193.	PS76	ICT	Kol	Problem-Based Learning-Towards Advanced Pedagogy	Indrajit Saha, Sagarika Pal, Kinsuk Giri & Arpan Kumar Mondal	20/03/2023	24/03/2023	1	Techical teachers from all disciplines	After attending the course the participants will be able to • Explain the basic problem solving strategies in classroom • Identify specific problems covering a particular area of learning • Solve problems in various branches of Engineering through PBL • Analyse the benefits associated with PBL compared to conventional learning
194.	CU103	Contact	BBSR	Formal Languages and Automata	Samir Roy	27/03/2023	31/03/2023	1	Techiical teachers from all disciplines	After successful completion the course the participant will be able to • Apply the principles & techniques of Formal Languages and Automata in computational systems. • Implement Formal languages and Automata in software design. • Explain the concepts of Formal Languages and Automata in classroom
195.	CU104	ICT	Kol	ICT Tools for Effective Teaching and Learning	Kinsuk Giri & Arpan Kumar Mondal	27/03/2023	31/03/2023	1	Techical teachers and staff from all disciplines	After going through this program the participants will be able to: • Explain the need for online pedagogy • Plan online instruction • Explain the concept of online Mode of teaching-learning, • Understand the use of various ICT tools, • Apply different online tools for ICT based teaching learning • Apply different online tools for online assessment • Incorporate different principles for effective online delivery

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