B. E-LEARNING PROGRAMME (ON-LINE PROGRAMME DELIVERY THROUGH ICT MODE):

Government of India has approved two projects titled National Mission on Education through Information and Communication Technology (NME-ICT) (mission document at www.sakshat.ac.in) and the National Programme on Technology Enhanced Learning' (NPTEL) in order to leverage the potential of ICT in providing high quality personalized and interactive knowledge modules over the internet to offer short term training programmes in cutting edge technologies for the faculty/staff members of polytechnics and engineering colleges. In order to assist the Government in realizing the goals of these two Missions, NITTTR, Kolkata has decided to offer programmes throughout the academic session 2019-20. A list of the training programmes to be offered through ICT Mode in 2019-20 is provided below:

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date From	Date To	Week	Target Discipline	Programme Objectives
1.	ICT01	NBA Accreditation	Rayapati Subbarao	22.04.2019	26.04.2019	1	Faculty of all disciplines	At the end of the programme, the participants will be to: • Find 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
2.	ICT02	Introduction to Artificial Intelligence	Samir Roy	06.05.2019	10.05.2019	1	Faculty of CSE, IT, Computer Application, Electronics & Electrical & Mathematics	After successful completion of the programme, the participants will be able to • Explain the concepts of Artificial Intelligence in classroom. • Apply Artificial Intelligence techniques to solve complex problems. • Develop intelligent computational systems.
3.	ICT03	Problem Based Learning	Sagarika Pal, Indrajit Saha, Kinsuk Giri, Arpan Kumar Mondal	20.05.2019	31.05.2019	2	Faculty of Engineering disciplines	After completing the course the participant 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
4.	ICT04	Assessment and Evaluation under Outcome Based Education	Urmila Kar	10.06.2019	14.06.2019	1	Faculty of all disciplines	After attending this programme, the participants will be able to • identify features of Outcome Based Education (OBE) • distinguish between assessment and evaluation • explain the importance of assessment and evaluation under OBE • plan assessment under OBE • design assessment tools under OBE
5.	ICT05	Introduction to Network Security	Indrajit Saha	24.06.2019	28.06.2019	1	Faculty of Computer Application, Computer Science, IT, Mechanical, Electrical & Electronics	After attending the program, the participants will be able to • describe the fundamentals of Network Security • demonstrate how to maintain the privacy of computer data • explain network security in classroom
6.	ICT06	Automated Manufacturing Systems	Nirmal Kumar Mandal	01.07.2019	05.07.2019	1	Faculty of all disciplines	After attending the programme the participants will be able to • Explain Automation • Analyse the performance of Automated Manufacturing System

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				From	To			
7.	ICT07	Effective Teaching	Habiba Hussain	15.07.2019	19.07.2019	1	Faculty & Technicians of all disciplines	After attending the programme the participants will be able to • Analyse components of effective teaching • Identify paradigm change in Learning-Teaching system • Design instruction for active learning • Manage classroom behaviour • Develop a tool for assessing teaching effectiveness
8.	ICT08	Rural Development through Technical Institution	Uday Chand Kumar	29.07.2019	02.08.2019	1	Faculty & Technicians of all disciplines	After attending the programme the participants will be able to • Understand the history rural development • Understand the activities of the various scheme. • Aware the role of Technical Institution in implementing the various scheme. • Prepare project report. • Prepare action plan of the scheme. • Involve PRI /NGO in implementing the scheme.
9.	ICT09	Advanced Manufacturing Processes	Arpan Kumar Mondal	05.08.2019	09.08.2019	1	Faculty & Technician of Mechanical & allied disciplines	After attending the programme the participants will be able to • Classify various advanced manufacturing processes. • Explain the principles of non-conventional manufacturing processes • Explain the principles of welding processes • Know the recent developments in the field of advanced manufacturing.
10.	ICT10	Analysis and Design of Shallow Foundations	Jagat Jyoti Mandal	26.08.2019	30.08.2019	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme the participants will be able to • Determine settlement and bearing capacity of shallow foundations and deep foundation • Design different types of shallow foundations • Isolated, • combined footing and • raft foundation and • Teach the related topics in more efficient manner
11.	ICT11	Principles of RCC Design up to & beyond Limit States, Applications and Limitations of IS:456-2000	Santanu Bhanja	16.09.2019	20.09.2019	1	Faculty of Civil, Architecture & allied disciplines	After attending the course, the participants will be able to • Understand the philosophy of Limit State Method in a comprehensive manner as per IS:456-2000 • Understand the importance of ductility in R.C. Design • Identify the major design and detailing considerations • Differentiate between load and capacity design • Understand Performance based design

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				From	To			
12.	ICT12	Water Pollution and Health	Sailendra Nath Mandal	21.10.2019	25.10.2019	1	All disciplines	After attending the programme the participants will be able to acquire – • knowledge of basic concept of water pollution, different parameters of water, and impact of each water parameter on human health, • skill of demonstrating conventional & modern sophisticated equipment, performing related experiments in the laboratory, interpreting experimental results, preparing related test-reports with remarks/comments (if any), • attitude of demonstrating the water pollution analysis equipment.
13.	ICT13	Management Issues of Laboratory and Workshop Class	Dipankar Bose	04.11.2019	08.11.2019	1	Faculty & Laboratory Technicians, Workshop Instructors	After attending he programme the participant will be able to • know nature of learning process in laboratory and workshop, • prepare laboratory log book • explain the role of instructor for laboratory/workshop, and issues of laboratory and workshop development • state management Issues such as management of students, their attitude, diversity, timings • know assessment procedures of students for laboratory and workshop class • state the steps of procurement of laboratory items inventory and storage of apparatus, • suggest the training modules for laboratory personnel:
14.	ICT14	Control and Automation	Sagarika Pal	18.11.2019	22.11.2019	1	Faculty of Electrical, Electronics, Instrumentation and Mechanical	After completing the course the participant will be able to • Classify various control strategies used for industrial automation • Explain Conventional and complex control techniques • Apply PLC for discrete and continuous control systems • Apply DCS and SCADA for automation
15.	ICT15	Problem Based Learning	Arpan Kumar Mondal, Indrajit Saha, Sagarika Pal, Kinsuk Giri	02.12.2019	06.12.2019	1	Faculty of all disciplines	After completing the course the participant 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
16.	ICT16	Indian Electricity Rule and Code of Practices	Prasanta Sarkar	16.12.2019	20.12.2019	1	Faculty of Electrical, Electronics & allied 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.

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Discipline	Programme Objectives
				From	To			
17.	ICT17	Theory, Operation and Applications of Transducers & Actuators in Industry	Subrata Chattopadhyay	30.12.2019	03.01.2020	1	Faculty of Electrical, Instrumentation, Electronics & 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
18.	ICT18	Organizational Behaviour	Mithu Dey	20.01.2020	24.01.2020	1	Faculty of all disciplines	After attending the program, participants are expected to be able to • Understand how to behave with the others • Set the goal • Manage the stress at workplace • Communicate with the others person • Work within the group • Learn to appreciate the others opinion • Understand the important of self existence
19.	ICT19	Development of Laboratory Instruction and Manual	Subrata Mondal	03.02.2020	07.02.2020	1	Faculty of all disciplines	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 management in laboratory etc.
20.	ICT20	Problem Solving and Decision Making	Sukanta Kumar Naskar	17.02.2020	21.02.2020	1	Faculty of all disciplines	After attending the programme, the participants will be able to: • Identify basic steps in problem solving and decision making • Appreciate different factors for effective decision making • Correlate conflict in decision making • Identify basic tools in problem solving • Apply basic tools in problem solving and decision making

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Discipline	Programme Objectives
				From	To			
21.	ICT21	Commentary on IS: 456-2000 with an Introduction to IS:13920-2016	Santanu Bhanja	02.03.2020	06.03.2020	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to • 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 • Identify the steps to be taken for concrete production, quality control and testing • Understand the philosophy and principles Limit State Method in a comprehensive manner • Conceive that this code cannot be considered as a single package for the design of concrete structures and has to be mandatorily read in conjunction with other codes • Identify the limitations of the code • Be introduced to the basic requirements of IS:13920-2016
22.	ICT22	Renewable Energy Sources and Emerging Technologies	Sheela Yadav Rai	23.03.2020	27.03.2020	1	Faculty of Engineering disciplines	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

PROCEDURE:

The proposed programmes will be hosted in the Institutes' website along with the dates of their commencement. Any technical institute can select any of the programmes for participantion participate and write directly to NITTTR, Kolkata for the programme and its date of commencement. In order to participate in the e-Learning programme an Institute should have the following accessories as given in the next page.

GENERAL INSTRUCTIONS FOR ICT BASED TRAINING PROGRAMME:

1. Participating Institutes should ensure that ICT/e-class room is available and equipped with necessary hardware and software components and inform the status to NITTTR, Kolkata well in advance (minimum 45 days before)
2. Minimum 75% attendance for each session is required for obtaining certificates
3. Attendance sheet has to be certified by the co-ordinator/Head of the Institute
4. After completion of the ICT based programme, all relevant documents (hard copies) such as, registration sheet, attendance sheet, feedback form etc., should be sent to NITTTR, Kolkata for further action
5. Provision of Tea & Snacks and Working Lunch (as per NITTTR, Kolkata norms) will be made to the participants
6. For any further clarification, kindly contact the programme co-ordinator of NITTTR, Kolkata

List of Software and Hardware Requirement to Conduct ICT Mode Programme

Sl. No.	Item	Configuration	Quantity
1.	A-VEW Software	NITTTR, Kolkata will guide in this regard. Please contact	
2.	Workstation / PC	2 GB RAM or higher Intel Core 2 Duo Processor or higher Windows 7 OS or higher Keyboard, Mouse Video capture card, Graphics card (Optional)	1
3.	Display	Desktop monitor / Big LCD TV (42" preferable) and projector must (Dell LCD Projector similar device of same specification	As per the availability (1-4)
4.	Camera	Web Camera / Handy Camera	1
5.	Long cable to connect Camera and PC		1
6.	Audio Mixer	Yamaha MG-102 Mixer or similar device of same specification	1
7.	Microphone	Professional Mike / headphone Mike according to the audience	As per the need
8.	Speakers	Professional speaker / Head Phone	As per the need
9.	Long VGA Cables	Length depends on the distance between PC and displays. VGA should have Male and Female connectors	1-4
10.	Audio Cable & Connectors	According to the input / output ports	As needed
11.	DVI-VGA Convertors (optional)		0-4 (depends on the video card(s) of the PC)
12.	Digital Writing Pad /Notepad (optional)	iBall Take Note Premium A4 or similar device of same specification	1