

# **VISION**

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

- ➤ 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 2024-25.

In order to fulfill the needs of technical teachers of the country, Short- Term Training programmes (STTP) / Faculty Development Program (FDP) 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. Hybrid Mode

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.





# NATIONAL INSTITUTE OF TECHNICALTEACHERS' TRAINING AND RESEARCH, KOLKATA Registration for STTP – Application Form

1		Prog. Code	:			
2	(a)	Programme Title	:			
	(b)	Date	:	From:	То:	
	(c)	Prog. Coordinator(s)	:			
3	(a)	Name (in CAPS)	:			
	(b)	Designation	:	First	Middle	Last
	(c)	Department	:			
	(d)	Institution	:			
	(e)	Institute Address	:			
				State	Pin:	
	(f)	Caste	:		(g) Gender	
	(h)	Contact Number	:	Mobile		
4		Highest Academic Qu	ualificat	ion:	Email	
		Degree/Diplom	na	University/Others	Year of Passing	Class Obtained
5	(a)	Experience (in years	)	: Teaching	Industry/Field	
6. If y	Paym es, Re	nent of Course Fees R ceipt No.	S	Paid Yes 🔲	No □,	
pr	omise	to attend the above r	nention	ed training programme, if s	selected.	
Da Γhis	ite: s is to		ant will	be released to attend the	Signature of th	e Applicant elected, without any financial
	ite:	•	_	•	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 Program (STTP) / Faculty Development Programme (FDP)

SI.	Prog.	Programme Title	Fees	Venue	Prog.	Programme Co-	Da	te	_	Target Participant /	Programme Outcomes
No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
1.	CU01A	Introduction to Bioinformatics	1500	In-House	Contact	Indrajit Saha	As Per Demand		1	Faculty members from CSE, IT, BCA, MCA ECE, EE, ME, CIVIL	After completion of the program, the participants will be able to  • describe the basic principles and concepts of biology, computer science and mathematics  • apply Machine Learning in Bioinformatics  • explain Bioinformatics in classroom
2.	PS01C	Use of advanced teaching tool in teaching- learning system	300	In-house	ICT	Mithu Dey	As Per Demand		1	Faculty of all disciplines	After completion of the program, participants will be able to  • Demonstarte the advanced tools for teaching  • Use the Etool in teaching  • Select the suitable tool  • Use suitable teaching method for the students
3.	PS02B	Research and Publication Ethics	700	In-House	Contact	Niladri Pratap Maity	As Per Demand		1	Faculty members/Instruct ors from all disciplines	After completion of the programme, the participants will be able to  • Define research  • Identify different aspects of research.  • Appreciate the four elements of writing a research thesis.  • Follow Research Integrity and Publication Ethic  • Follow several ethical issues  • Identify Error and Fraud in research  • Prepare Database and research metrics  • Follow how to publish research outcomes

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	Prog.	Programme Title	Fees	Venue	Prog.	Programme Co-	Dat	е	×	Target Participant /	Programme Outcomes
No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
4.	PSO3B	Content Development for Technology Enabled Learning	700	In-House	Contact	Rajeev Chatterjee	As Per Demand		1	Faculty of all disciplines	After completion of the 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 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  • Design content for virtual labs
5.	PSO4C	Assessment, Evaluation and Development of question bank	300	In-House	Contact	Sagarika Pal	As Per Demand		1	Faculty of all disciplines	After completion of the programme the participants will be able to  • Define Measurement, Assessment, Evaluation and Test  • Construct the test items  • Design the table of Specification  • Prepare the question paper  • Analyse the question paper  • Develop question Bank.

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S	. Prog	g.	Programme Title	Fees	Venue	Prog.	Programme Co-	Da	te		Target Participant /	Programme Outcomes
N	o Cod	le		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
6.	cuc		Renewable Energy Sources and Emerging Technologies	1500	In-House	Contact	Sheela Yadav Rai	As Per Demand		1	Faculty and Laboratory Technicians from All Discipline	After completion of the programme the participants will be able to:  • Discuss Energy Sources and their utilization  • Explain Environmental aspects of electric energies generation  • Discuss the scope of Solar Thermal Conversion and Solar Photovoltaic system  • Describe wind energy, Geothermal energy and Biomass  • Apply Non-conventional energies through various agencies viz.WBREDA
7.	PSO		Utilisation of Instructional Media and CAI in Effective Teaching	300	In-House	Contact	Subrata Chattopadhyay	As per demand		1	Faculty of Electrical, Electronics and Communication, Mechanical,Electr onics & Instrumentation disciplines	After completion of the course the participants will be able to  • Explain the utility of instructional media  • Discuss the types of instructional media and its advantages  • Use computer as instructional media and its advantages and limitations  • Describe the courseware  • Classify the Different types of courseware  • Apply Computer assisted instruction  • Identify the feathers of CAI  • Explain different types of CAI  • Explore a model class with CAI

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
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8.	CU03C	Bio-Medical Instrumentation	300	In-House	Contact	Subrata Chattopadhyay	As per demand		1	Faculty of all disciplines	<ul> <li>After completion of the course, the participants will be able to</li> <li>describe Cells, Digestive System, Excretory System, Endocrinology</li> <li>describe Origins of electro-physiological signal and their characteristics</li> <li>design practical clinical sensors and transducers</li> <li>explain the operation of X-ray, Fluoroscopy and Radiography, Pacemaker, Magnetic Resonance Imaging etc.</li> <li>explain Electric shock hazards and safety devices</li> </ul>
9.	CU04C	Advanced Process Control Using PLC DCS & SCADA	300	In-House	Contact	Subrata Chattopadhyay	As per demand		1	Faculty of Electrical, Electronics and Communication, Mechanical,Electr onics & Instrumentation disciplines	After completion of the course, the participants will be able to  • Explain closed loop control system  • Discuss the pressure, Temperature, Flow & Level Measurement system  • Explain 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  • Discuss the fundamental of PLC, DCS and SCADA

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SI	Prog.	Programme Title	Fees	Venue	Prog.	Programme Co-	Dat	:e	¥	Target Participant /	Programme Outcomes
No	Code		(Rs.)		Mode	ordinator(s)	From	То	Veel	Group	
•									>		
10	CU05B	Development of Laboratory Instruction and Manual	700	In-house	Contact	Subrata Mondal	As Per demand			Faculty from all disciplines	After completion of this programme, participants will be able to: • identify the role of laboratory in student learning; • develop laboratory exercise; • write laboratory report; • explore standard operating procedure (SoP) in laboratory; • explore safety management in laboratory
											etc.

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
	. PSO6C	Induction Training	600	In-House	Contact	Sukanta Kumar Naskar	As Per Demand		2	Faculty from all disciplines	<ul> <li>After completion of the programme, the participants will be able to</li> <li>Interpret the aspects of curriculum for implementation, monitoring and evaluation.</li> <li>Suggest with justification, ways and means for ensuring ethical behaviour by teachers.</li> <li>Demonstrate Communication skills for improving effectiveness of teaching learning.</li> <li>Prepare instructional plan for classroom, laboratory, workshop and industry-based instruction.</li> <li>Relate the classroom delivery with relevant assignments, tests and other activities for reinforcement of learning.</li> <li>Create effective learning environment utilizing instructional technology resources, digital tools, online platforms and Social media.</li> <li>Design Direct and Indirect assessment tools.</li> <li>Solve problem creatively.</li> <li>Undertake Research to improve the various sub-components of technical education system.</li> <li>Prepare action plan for improvement of institutional performance.</li> </ul>

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
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12	PS07B	Design and Development of	700	Kolkata	Contact	Rajeev Chatterjee &	01-04-2024	05-04-2024	1	Faculty from all	After going through this program, the
		content for e-				Ranjan Dasgupta				disciplines	participants will be able to:
		Learning				nanjan Basgapta					<ul> <li>explain the concept of e-learning, TEL</li> <li>explain synchronous and asynchronous e-</li> </ul>
											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
											<ul><li>and technology.</li><li>Explain the concept of lifelong learning</li></ul>
13	CU07C	Hands-on	600	Kolkata	Contact	Arpan Kumar	08-04-2024	19-04-2023	2	Technical teachers	After completion of the programme the
		Practices on TIG				Mondal					participants will be able to
		and MIG								Mechanical	Explain the principles of advanced welding
		Welding Process								Engineering or	processes.
										allied disciplines	Perform independently various advanced
											welding processes: TIG, MIG, Welding
											Perform various testing of welds

Prog. Code: CU – Contant Update, PS – Professional Skill, MGT – Management Prog. Mode: Contact - Offline, ICT – Online, Hybrid – Both online and offline

Venue: Kolkata Main Campus, BBSR – Bhubaneswar, Odisha Extension Centre, Guw – Guwahati, Assam Extension Centre.

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
14.	CU08C	Importance of Soil Investigation in Construction Projects	300	Kolkata	ICT	Naveen BP	08-04-2024	12-04-2024	1	Faculty and laboratory technicians	After completion of the programme, the participants will be able to  • Discuss principles and practices of soil laboratory tests.  • Explain index property, permeability, consolidation, and shear strength test procedures.  • Describe In-situ soil testing methods.
15.		Fundamental of Power Electronics and Electric vechiles	700	Kolkata	Contact	Soumitra Kumar Mandal	08-04-2024	12-04-2024	1	Faculty and Lab Technician of Engineering and Polytechnic Colleges in Electrical Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Instrumentation Engineering	After completion of the programme, the participants will be able to  • Explain operating principle and characteristics of Power Electronics Devices  • Describe operation and control of converters  • Illustrate applications of converters in Electric vechiles
16.	PS08B	ICT Tools for Assessment	420	Kolkata	Hybrid	Kinsuk Giri	10-04-2024	12-04-2024	3 D a ys	Faculty and instructors from all disciplines	After completion of the programme, the participants will be able to  • Discuss the use of various ICT tools for Assessment  • Apply different online tools for online assessment

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Venue: Kolkata Main Campus, BBSR – Bhubaneswar, Odisha Extension Centre, Guw – Guwahati, Assam Extension Centre.

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
17.	CU10F	Refreshers course on Engineering Mechanics	Free	Kolkata	ІСТ	Dipankar Bose	15-04-2024	26-04-2024	2	Faculty members with specialization ME,CE,AE, Production Engineering	After completion of the programme the participants will be able to  • Discuss various classifications of Engineering Mechanics  • Explain the concept of statics  • Explain the concept of dynamics  • Identify practical applications of Engineering Mechanics  • solve numericals related to engineering mechanics
18.	CU11F	Introduction to Coding Theory	Free	BBSR	Contact	Rajeev Chatterjee	15-04-2024	19-04-2024	1	Faculty from all disciplines	<ul> <li>After completion of this programme, the participants will be able to:</li> <li>Explain information, quality of Information, and Information entropy,</li> <li>Demonstrate the working principles and design of AES, DES,</li> <li>Demonstrate various encoding techniques like Arithmetic Encoding, Huffman Encoding, Hamming Code, Gray code, JPEG Encoding Standard, Lempel Ziv Coding etc., and</li> <li>Demonstrate the applications of coding techniques in the area of Networking and Communication.</li> </ul>

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
19.	CU12B	Clean & Safe Drinking Water – importance & need	700	Kolkata	ICT	Sailendra Nath Mandal	15-04-2024	19-04-2024	1	Faculty and Staff of any discipline	After completion of the programme the participants will be able to  illustrate knowledge of different drinking water testing parameters, equipment, methods of testing, different standards and impact on human health,  demonstrate skill of online demonstration of different device, 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,  demonstrate attitude of live online participation in the laboratory/field.
20.	CU13B	Power Generation from Energy Resources	700	BBSR	contact	Sheela Yadav Rai	22-04-2024	26-04-2024	1	Faculty from all Discipline	After completion of the programme the participants will be able to  • Identify potential sources of conventional energies for power generation  • Describe potential sources of nonconventional energies for power generation  • Discuss environmental aspects of power generation  • Appreciate about various power projects

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
21.	PS09B	Research Methodology & Data Analysis	700	Kolkata	Hybrid	Chandan Chakraborty	22-04-2024	26-04-2024		Faculty of all disciplines	After completion of the the programme the participants will be able to  • Develop understanding of the research design, interdisciplinary research in the line of NEP 2020.  • Explore about systematic literature review with PRISMA  • Excel in-depth knowledge in statistical methods and models  • Explore testing of hypothesis for scientific validation of research hypothesis.  • Hands-on-training on statistical data analysis, Paper writing, thesis reporting etc.
22.	MGT02B	Leadership & people management	700	In-house	Contact	Habiba Hussain	As per demand			Teachers of polytechnics, Engg. colleges & all higher educational institutes	After completion of the programme, the participants will be able to  • Explain academic leadership  • Empower learners with leadership qualities  • Manage people for greater efficiency  • Promote a positive work culture

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
23.	CU14B	Analysis and Design of Super- structures and Foundations using a powerful Structural Engineering Software	700	Kolkata	ICT	Santanu Bhanja	22-04-2024	26-04-2024	1	Faculty of Civil, Architecture & allied disciplines	After completion of the programme, the participants will be able to  Identify the role of software in structural analysis and design  Discuss the basic features of a universally accepted software-STAAD.Pro Connectlatest 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 multistoreyed buildings  Analyse and design foundations
24.	CU15C	Advanced Structural Analysis using software	300	Kolkata	ICT	Mithu Dey	22-04-2024	26-04-2024	1	Faculty civil & allied branches	After completion of the program, participants are expected to be able to  Describe different methods of structural analysis  Explain the Finite element method of analysis  Appreciate the application of FEM in solving the problems.  Use of FEM based software to solve the problem

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
25.	CU16C	Introduction to Coding Theory	300	Guw	Contact	Rajeev Chatterjee	22-04-2024	26-04-2024	1	Faculty from all disciplines	<ul> <li>After completion of this programme, the participants will be able to:</li> <li>Explain information, quality of Information, and Information entropy,</li> <li>Demonstrate the working principles and design of AES, DES,</li> <li>Demonstrate various encoding techniques like Arithmetic Encoding, Huffman Encoding, Hamming Code, Gray code, JPEG Encoding Standard, Lempel Ziv Coding etc., and</li> <li>Demonstrate the applications of coding techniques in the area of Networking and Communication.</li> </ul>
26.	PS10B	NAAC Accreditation	700	Kolkata	Contact	Rayapati Subbarao	22-04-2024	26-04-2024	1	Faculty from all disciplines	After completion of the programme, the participants will be able to:  • Identify the impact of accreditation.  • Prepare Vision, Missiona and COs.  • Identify the criteria for NAAC.  • Categorize different key indicators.  • Illustrate how to prepare SSR.

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
27.	CU06B	VLSI Design	700	Kolkata	ІСТ	Niladri Pratap Maity	22-04-2024	26-04-2024		Faculty members/Scientis ts/ Staffs of ECE/EE/CSE/IT/EE E/E&TC /Physics and related subject	After completion of the programme, the participants will be able to  Discuss basics of VLSI Design Follow Electron Device Modeling Follow VLSI circuit Design Methodology Prepare Digital VLSI Design Discuss different VLSI Design Tools Identify different CAD tools Identify material for Modern IC Design Follow up High-k Dielectric materials Follow recent govt. schemes for VLSI Design
28.	CU17B	Sensors and IoT Applications	700	Kolkata	ІСТ	Sagarika Pal	22-04-2024	26-04-2024	1	Faculty of Electrical, Electronics and Communication, Mechanical, Electronics & Instrumentation disciplines	After completion of the programme the participants will be able to  • Differentiate sensors, transducers and actuators  • Explain principle of operation of different sensors, transducers and actuators  • Explain need of IoT for sensor data communucation  • Apply IoT sensors in various automation fields
29.	CU18C	Mechanical Workshop Practice	600	Kolkata	Contact	Arpan Kumar Mondal	22-04-2024	03-05-2024	2	Technical teachers and staff from Mechanical Engineering and allied disciplines	After completion of the program the participants will be able to  • Classify various components of the mechanical workshop.  • Explain the principles of various metal working processes.  Practice on welding, forming, machine tools, CNC, mechanical testing etc

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SI	Prog.	Programme Title	Fees	Venue	Prog.	Programme Co-	Da	te	_	Target Participant /	Programme Outcomes
No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
30	. CU19B	Industrial Automation	1400	Kolkata	Contact	Subrata Chattopadhyay	22-04-2024	03-05-2024	2	Faculty of Electrical, Electronics and Communication, Mechanical, Electronics & Instrumentation disciplines	After completion of the course, the participants will be able to  • Explain P,PI,PID control system  • Discuss the pressure, Temperature, Flow & Level Measurement systems for automation  • Design the conventional complex control system like ratio, cascade, feed forward, selective, override etc.  • Apply the control system in distillation column in industry  • Discuss the fundamental of PLC, DCS and SCADA
31	. CU20F	Laboratory Safety Management	Free	Kolkata	ICT	Subrata Mondal	29-04-2024	10-05-2024	2	Faculty and instructors from all disciplines	After completion of this program, participants will 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.
32	. PS11B	Bloom's Taxonomy Based Question Paper Generation	700	Kolkata	ICT	Dipankar Bose	06-05-2024	10-05-2024	1	Faculty memebers of all disciplines from different technical institutions	After completion of the programme the participants will be able to  • Explain Bloom's Taxonomy – Basic Features and domains  • prepare question papers based on Bloom's Taxonomy

Prog. Code: CU – Contant Update, PS – Professional Skill, MGT – Management

Prog. Mode: Contact - Offline, ICT - Online, Hybrid - Both online and offline
Venue: Kolkata Main Campus, BBSR - Bhubaneswar, Odisha Extension Centre, Guw - Guwahati, Assam Extension Centre.

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
33.	PS12B	Life skills for empowering 21 <sup>st</sup> century learners	700	Kolkata	ІСТ	Habiba Hussain	06-05-2024	10-05-2024	1	Teachers of polytechnics, Engg. colleges & all higher educational institutes, also the laboratory technicians	After completion of the programme the participants will be able to  • Develop greater self-confidence for managing change & dealing with learning challenges  • Communicate with prospective leaders  • Develop emotionally intelligent workforce for a brighter tomorrow  • Build in resilience for sustainability
34.	CU21B	Engineering Optimization	700	Kolkata	ICT	Kinsuk Giri	06-05-2024	10-04-2024	1	Faculty and instructors from all the disciplines	After completion of the programme the participants will be able to  • discuss why and what of Optimization  • describe the fundamentals of Optimization techniques  • apply tools for problem solving in Optimization
35.	CU22B	Waste to Wealth	700	Kolkata	ІСТ	Naveen BP	06-05-2024	10-05-2024	1	Faculty and laboratory technicians	After completion of the programme the participants will be able to  • support development of modern technologies that can help create a cleaner and greener environment.

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
36	CU23A	Introduction to Applied IP Networking	1500	Kolkata	Contact	Rajeev Chatterjee	06-05-2024	10-05-2024	1	Faculty of CSE, IT Computer Application, Electronics, discipline	After completion of the programme the participants will be able to  Explain the concept of Computer Network and Internetwork,  Identify the various components of Network and Internetwork,  Explain various network topologies, media, protocols, and devices used in networks,  Analyse the various protocols in TCP/IP Suite,  Explain LAN and VLAN,  Apply the concept of switching and routing,  Demonstrate configuration of the devices such as routers, switches, etc.,  Demonstrate the concepts related to Network Security.
37	CU24C	Hands-on Practices in Advanced Welding Processes	600	Kolkata	Contact	Arpan Kumar Mondal	06-05-2024	17-05-2024	2	Technical teachers and staff from Mechanical Engineering and allied disciplines	<ul> <li>After completion of the program the participants will be able to</li> <li>Explain the principles of advanced welding processes.</li> <li>Perform independently various advanced welding processes: TIG, MIG, Pulsed TIG, Medium and Soft Plasma Arc Welding</li> <li>Explain the physics of welding</li> <li>Perform the various advanced welding processes</li> <li>Perform varios testing of welds</li> </ul>

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No.	Code		(Rs.)		Mode	ordinator(s)	From	То	Weel	Group	
388	. MGT03C	Waste Management Technology & Sustainability	600	Kolkata	ICT	Sailendra Nath Mandal	06-05-2024	17-05-2024		Faculty and Staff of any discipline	After completion of the programme the participants will be able to —  • illustrate basic concept of solid waste, wastewater, sampling, preservation, analysis, standards, interpretation of result and disposal of wastewater, Solid waste, impact on human health,  • demonstrate skill of online demonstration of different device, 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,  • demonstrate attitude of live online participation in the laboratory/field.

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
39	PS13A	Advanced pedagogy	3000	Kolkata	ICT	Sukanta Kumar Naskar & Arpan Kumar Mondal	06-05-2024	17-05-2024	2	Faculty and Instructor from all disciplines	After completion of the programme, the participants will be able to  Identify the need for Advanced Pedagogy Explain different Advanced Pedagogy Approaches  Explain the quality issues in Technical Education and the Role of Teachers Discuss recent trends in curriculum design Map outcomes to learning activities Practice a few active learning techniques Engage students in complex problemsolving and critical thinking Design tools for assessing learning Incorporate technology in teaching to enhance the teaching-learning process Plan teaching for Education 4.0
40	CU25C	Data Analytics	300	Kolkata	ICT	Chandan Chakraborty	13-05-2024	17-05-2024	1	Faculty of CSE/ECE/EE/IT and Allied Disciplines	<ul> <li>After completion of this course, the participants will be able to</li> <li>Explain data fetching and data augmentation techniques,</li> <li>Explore various data presentation, summarization and data visualization techniques,</li> <li>Demonstrate data compression (PCA) and optimization models viz., least square and maximum likelihood estimation techniques.</li> <li>Explore various predictive and classification models.</li> </ul>

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
41.	CU27A	Engineering Vibrations	1500	Kolkata	Contact	Nirmal Kumar Mandal	13-05-2024	17-05-2024	1	Faculty members from Mechanical and allied Disciplines	After completion of the programme the participants will be able to  • Model vibrations of a physical systems • Model acoustics of a physical system.
42.	CU28B	Software Quality Issues and Software Models	700	Kolkata	Contact	Ranjan Dasgupta	13-05-2024	17-05-2024		Teachers of CSE/IT/MCA with interest in SE	After completion of the programme the participants will be able to explain  • Different quality aspects of software  • Techniquies used to embed the quality  • Various models used for software development
43.	CU29A	LABVIEW and Industrial IoT	1500	Kolkata	Hybrid	Sagarika Pal	13-05-2024	17-05-2024		Faculty of Electrical, Electronics and Communication, Mechanical, Electronics & Instrumentation disciplines	After completion of the programme 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  • Apply LBVIEW for IoT and Industrial Automation

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
44	PS14C	Designing Direct and Indirect Assessment Tools under OBE	300	Guw	Contact	Urmila Kar	13-05-2024	17-05-2024	1	Faculty members and Technicians from Polytechnics, Engg. Colleges, Degree Colleges, Universities and other HEIs	After completion of the programme, the participants will be able to  • Identify tools and techniques for assessment and evaluation of learning outcomes under OBE  • Design direct tools for assessment of learning in  • Knowledge domain  • Psychomotor domain  • Affective domain  • Design indirect tools for learning assessment
45	CU30C	Fluid Power	300	Kolkata	Contact	Dipankar Bose	20-05-2024	24-05-2024	1	•	<ul> <li>After completion of the programme the participants will be able to</li> <li>explain classification of fluid powered systems</li> <li>Verify working principles of various types of fluid powered systems through hands on practice</li> <li>Give applications of fluid powered systems</li> </ul>

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	Prog.	Programme Title		ate	~	Target Participant /	Programme Outcomes				
No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
46.	CU31A	Renewable Energy Sources and Emerging Technologies	1500	BBSR	Contact	Sheela Yadav Rai	20-05-2024	24-05-2024	1	Faculty and Laboratory Technicians from All Discipline	After completion of the programme the participants will be able to:  • Discuss Energy Sources and their utilization  • Explain Environmental aspects of electric energies generation  • Discuss the scope of Solar Thermal Conversion and Solar Photovoltaic system  • Describe wind energy, Geothermal energy and Biomass  • Apply Non-conventional energies through various agencies viz.WBREDA
47.	CU32C	Basic Principles of Pile Foundations	300	Kolkata	ICT	Naveen BP	20-05-2024	24-05-2024	1	Faculty and laboratory technicians	After completion of the programme the participants will be able to  • Explain the Pile foundation importance
48.	CU33C	Mechanical Testing of Materials	600	Kolkata	Contact	Arpan Kumar Mondal	20-05-2024	31-05-2024	2	Technical teachers and staff from Mechanical Engineering and allied disciplines	After completion of the programme the participants will be able to  Explain various testing methods.  Analyze the theory behind various mechanical testing methods.  Perform various experiments in mechanical engineering.

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
49.	CU34B	IP Networking	1400	Kolkata	Contact	Rajeev Chatterjee	20-05-2024	31-05-2024	2	Faculty of CSE, IT Computer Application, Electronics, discipline	After completion of this programme, 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,
50.	CU35C	SCILAB Programming	300	Kolkata	ICT	Kinsuk Giri	27-05-2024	31-05-2024	1	Faculty and Instructor from all Disciplines	On completion of the programme the participants will be able to  • Demonstrate use of SCILAB  • Discuss overview on solution techniques  • solve problems using SCILAB

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
51.	PS15F	Values and ethics for professional	Free	Kolkata	ICT	Mithu Dey	27-05-2024	31-05-2024	1	Faculty of all Disciplines	After completion of 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
52.	PS16F	Research Methodology for Engineering and Sciences	Free	Kolkata	Contact	Niladri Pratap Maity	27-05-2024	31-05-2024		Faculty members/Staffs of all Engineering and sciences disciplines	After completion of the programme, the participants will be able to  Discuss what and why research Follow Characteristics of Research Appreciate the psychology of research Follow Research Integrity and Publication Ethic Follow research questions Identify four element of research thesis Explain thinking Explain the Intelligence and creativity

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
53.	CU36C	Concrete Mix Proportioning as per IS 10262 - 2019	300	Kolkata	ICT	Santanu Bhanja	27/05/2024	31/05/2024	1	Faculty of Civil, Architecture & allied disciplines	After completion of the course, the participants will be able to  • Discuss the process of selection of good ingredients of concrete  • Identify the important properties of concrete  • Discuss the process of concrete mix design as per the latest code of practice  • illustrate mix design of different types of concrete  • Identify different types of admixtures and their use
54.	CU37B	Non- conventional energy and Energy Mangement Systems Using Smart Grid	700	Kolkata	Contact	Soumitra Kumar Mandal	27-05-2024	31-05-2024	1	Faculty and Lab Technician of Engineering and Polytechnic Colleges in Electrical Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Instrumentation Engineering	After completion of the programme, the participants will be able to  • Describe non-conventional energy sources  • Identify the various parameters of Solar PV system  • Model Solar PV system  • Explain operation and control of Solar PV system  • Demonstrate Energy Management using Smart grid

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N:	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
55	. CU38B	Medical Instrumentation	700	Kolkata	Contact	Subrata Chattopadhyay	27-05-2024	31-05-2024	1	Faculty of all disciplines	<ul> <li>After completion of the course, the participants will be able to</li> <li>Define Cells, Digestive System, Excretory System, Endocrinology</li> <li>Describe Origins of electro-physiological signal and their characteristics</li> <li>Design practical clinical sensors and transducers</li> <li>Explain the operation of X-ray, Fluoroscopy and Radiography, Pacemaker, Magnetic Resonance Imaging etc.</li> <li>Explain Electric shock hazards and safety devices</li> </ul>
56	. PS18C	Entrepreneurshi p Development	300	Kolkata	ICT	Subrata Mondal	27-05-2024	31-05-2024	1	Faculty and instructors from all Disciplines	After completion of this programme, participants will 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.

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
57.	PS19C	Experiential learning for improving teaching-learning	300	Kolkata	ICT	Habiba Hussain	03-06-2024	07-06-2024	1	Teachers of polytechnics, Engg. colleges & all higher educational institutes	After completion of the course the participants will be able to  • Categosrise different stages in experientail learning cycle  • Identify activities for the stages of the learning cycle  Plan a topic with experiential learning
58.	MGT01B	Managerial approcahes in problem solving nd decision making	700	Kolkata	ICT	Sukanta Kumar Naskar	03-06-2024	07-06-2024	1	Faculty and staff from all disciplines	After completion of the programme, participants will be able to:  • Identify approaches in problem solving  • Identify step by step in decision making  • Identify tools of problem solving and decision making  Apply tools in problem solving and decision making
59.	CU39B	Hands-on Practices in Additive and Subtractive Manufacturing Processes	1400	Kolkata	Contact	Arpan Kumar Mondal	03-06-2024	14-06-2024	2	Technical teachers and Staff from Mechanical Engineering or allied disciplines	After completion of the course the participants will be able to  Classify the various additive and subtractive manufacturing processes  Explain the working principle of various additive and subtractive manufacturing processes  Perform independently various additive and subtractive manufacturing processes

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
60.	CU40C	Network Infrastructure Management	600	Kolkata	Contact	Rajeev Chatterjee	03-06-2024	14-06-2024	2	Faculty of CSE, IT Computer Application, Electronics, discipline	After completion of this programme, 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
61.	CU41C	Design of Payroll System following SE Principles and Quality aspects	600	Kolkata	Contact	Ranjan Dasgupta	03-06-2024	14-06-2024	2	Teachers of CSE/IT/MCA with interest in SE	After completion of this programme, the participants will be able to:  • Explain various aspects of Payroll System  • Illustrate SE design methodologies  • Develop a prototype design

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No.	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
622	. PS20F	Advanced Pedagogy	Free	Kolkata	ICT	Sagarika Pal	03-06-2024	14-06-2024	2	Faculty of all disciplines	After completion of the programme, the participants will be able to  Identify the need for Advanced Pedagogy Explain different Advanced Pedagogy Approaches  Explain the quality issues in Technical Education and the Role of Teachers  Discuss recent trends in curriculum design  Map outcomes to learning activities  Practice a few active learning techniques  Engage students in complex problemsolving and critical thinking  Design tools for assessing learning  Incorporate technology in teaching to enhance the teaching-learning process  Plan teaching for Education 4.0
63	. PS17C	NBA Accreditation and SAR preparation	300	Kolkata	ICT	Rayapati Subbarao	10-06-2024	14-06-2024	1	Faculty of all disciplines	After completion of the programme, the participants will be able to:  • Identify the Impact of NBA Accreditation.  • Prepare Vision, Mission, Program Educational Objectives.  • Prepare Outcomes and Program Outcomes.  • Explain how to prepare SAR  • Practice Criteria i to x.

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
64.	CU43C	Introduction to Augmented Reality & Virtual Reality	300	Kolkata	Contact	Chandan Chakraborty	10-06-2024	14-06-2024	1	Faculty of CSE/ECE/EE/IT and Allied Disciplines	On completion of the programme, the participants will be able to  • Develop a comprehensive understanding of the fundamental concepts and principles behind Augmented Reality and Virtual Reality technologies.  • Explore the differences between AR and VR, as well as their respective applications and use cases.  • Learn to create interactive and immersive experiences for AR and VR environments.  • Explore various electronic gadgets in the AR/VR Lab at NITTTR Kolkata.
65.	CU26B	Introduction to Image Processing	700	Kolkata	ICT	Indrajit Saha	10-06-2024	14-06-2024	1	Faculty members from CSE, IT, BCA, MCA, ECE, EE, ME, CIVILdisciplines	After completion of the programme 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
66.	CU44A	Arc Welding Processes	1500	Kolkata	Contact	Dipankar Bose	10-06-2024	14-06-2024	1	Faculty members and Technical Staff Members of Technical Institutions with, ME, Production and Automobile Engineering	After completion of the programme the participants will be able to  • explain various types of arc welding processes  • explain working principles of different arc welding processes  • state characteristics of various arc welding processes  • demonstrate virtual welding and various arc welding processes.

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
67.	CU45C	Digital Logic with CMOS IC Design	300	Kolkata	ІСТ	Niladri Pratap Maity	10-06-2024	14-06-2024		Faculty members/Scientis ts/ Staffs of ECE/EE/CSE/IT/EE E/E&TC /Physics and related subject	After completion of the programme, the participants will be able to  Explain basic of Digital Logic Design  Design Combinational Circuit  Explain Basic of CMOS Design  Design Digital CMOS Combinational Circuit  Discuss different tools using for Digital Circuit Design  Discuss Overview of VHDL/Verilog  Select alternative Material for IC Technology  Follow recent govt. schemes for CMOS IC Design
68.	CU46C	Data Science in Engineering	300	Kolkata	ICT	Nirmal Kumar Mandal	10-06-2024	14-06-2024	1	Faculty members from all Disciplines	After completion of the programme the participants will be able to  • Model a physical system  • Classify data  • Use MATLAB

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
69	CU47F	Envionmental Pollution and Public Health	Free	BBSR	Contact	Sailendra Nath Mandal	10-06-2024	14-06-2024	1	Faculty and Staff of any discipline	<ul> <li>After completion of the programme the participants will be able to</li> <li>Illustrate knowledge of basic concept of Air pollution, Water pollution and impact on human health,</li> <li>Demonstrate skill of handling conventional and modern sophisticated equipment, preparation of laboratory instruction sheets, interpreting experimental results, providing laboratory instruction such as to develop in enquiring attitude among students, preparing related test reports,</li> <li>Demonstrate attitude of hands-on-working in the laboratory/field. (Plant Visit)</li> </ul>
70	CU48C	Non- Conventional Energy	300	Kolkata	Contact	Subrata Chattopadhyay	10-06-2024	14-06-2024	1	Faculty of Electrical, Electronics and Communication, Mechanical, Electronics & Instrumentation disciplines	After completion of the course the participants will be able to  Explain different types of non conventional energy sources and their applications.  Describe solar energy, Utilization of it, Principles involved in solar energy.  Explore the concepts involved in wind energy  Illustrate Tidal and wave energy operational principle  Describe the Geothermal energy.

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No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
71.	CU49B	Functional Textiles and Protections	700	Kolkata	ICT	Subrata Mondal	10-06-2024	14-06-2024	1	Chemical Engg. Mechanical Engg., Science, Textiles Engg., Materials Sci. & Engg., Polymer Engg. and allied disciplines	<ul> <li>After completion of this program, participants will be able to:</li> <li>explain the concept of functional textiles.</li> <li>explain heat and moisture management in the clothing.</li> <li>explore the UV blocking textiles.</li> <li>describe the nanotechnology applications for the functional textiles.</li> <li>explore the medical textile etc.</li> </ul>
72.	MGT04B	Strategic management issues in technical instittions	700	Kolkata	ICT	Sukanta Kumar Naskar	10-06-2024	14-06-2024	1	Faculty and administrative staff	After completion of the programme the participants will be able to:  • Discuss the concept of strategic management  • Apply the concept of strategic planning  • Identify steps of strategic planning  • Apply different tools of management
73.	CU50A	Principles and practices of resource circularity for Waste management	1500	BBSR	Contact	Naveen BP	17-06-2024	21-06-2024	1	Faculty and Laboratory Technicians from all discipline	After completion of the programme the participants will be able to  • Handle challenges of waste management at the individual (household) and community scale (market, municipality, etc.) and state-of-the-art knowledge about resource circularity to tackle waste management

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SI.	SI. Prog. No Code	Programme Title	Fees	Venue	Prog.	Programme Co-	Da	te		Target Participant /	Programme Outcomes
No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
74	CU51C	Application of finite element method in engineering using advanced software	600	Kolkata	ICT	Mithu Dey	17-06-2024	28-06-2024		Faculty of all disciplines	<ul> <li>After completion of the programme, the participants will be able to</li> <li>Explain the concept of structural analysis</li> <li>Apply the diffenet method of strxuturala analysis.</li> <li>Apply the FEM for problem solving</li> <li>Handle the FEM based software.</li> <li>Solve the engineering problem using this software</li> </ul>
75	CU52F	Fundamentals of RC Design – Limit State Method and Beyond		Kolkata	ICT	Santanu Bhanja	17-06-2024	28-06-2024		Faculty of Civil, Architecture & allied disciplines	After completion of the programme, the participants will be able to  Explain 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  State basics of Performance based seismic design  List shortcomings of the standards in dealing with high grades of concrete and identify the grades of steel that are suitable for seismic design  Discuss overall design philosophy rather than mechanically using some design aids or charts  Design and Detail real life multistoried buildings using the basic features of a software

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SI.	Prog.	Programme Title	Fees	Venue	Prog.	Programme Co-	Da	te	×	Target Participant /	Programme Outcomes
No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
76.	MGT05B	Instructional Planning	700	Kolkata	ІСТ	Dipankar Bose	24-06-2024	28-06-2024		Faculty memebers of all disciplines from different technical institutions	After completion of the programme the participants will be able to  • discuss curriculum analysis for session planning  • state various types of instructional methods  • explain different types of instructional media and uses  • plan instructional delivery methods
77.	PS21B	NBA Accreditation and SAR Preparation for Engineering and Polytechnics	700	Kolkata	Contact	Arpan Kumar Mondal & Ranjan Dasgupta	24-06-2024	28-06-2024	1	Technical Teachers from all disciplines	After completion of the course the participants will be able to  Identify the Impact of NBA Accreditation  Prepare Vision, Mission, PEO, and PSO  Prepare CO-PO mapping  Ilulstrate how to prepare pre-qualifiers and SAR.  Practice the programme-level criteria  Discuss Washington accord
78.	CU53B	Fundamentals of Data Science	700	Kolkata	ICT	Indrajit Saha	24-06-2024	28-06-2024		Faculty members fron CSE, IT, BCA, MCA, ECE, EE, ME, CIVIL disciplines	After completion of 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

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	Prog.	Programme Title	Fees	Venue	Prog.	Programme Co-	Da	te	~	Target Participant /	Programme Outcomes	
No	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group		
79.	CU54B	Discrete Mathematics for Engineering	700	Kolkata	ІСТ	Kingsuk Giri	24-06-2024	28-06-2024	1	Faculty from all Disciplines	After completion of the program, the participants will be able to  Discuss the fundamentals of discrete mathematics  Solve problems in various areas of discrete mathematics  Apply Tools to solve few discrete math problems	
80.	CU55C	Geotechnical Investigation Laboratory Testing	300	Kolkata	ICT	Naveen BP	24-06-2024	28-06-2024	1	Faculty and Laboratory Technicians from all Disciplines	After completion of the program, the participants will be able to  • Demonstrate the standard procedures, technical importance of Geotechnical laboratory tests	
81.	CU56C	Data Structures & Algorithms	300	Kolkata	Contact	Samir Roy	24-06-2024	28-06-2024	1	Any teacher with basic knowledge of Mathematics and computer programming	After completion of the programme, the participants will be able to  • Explain the various data structures and algorithms  • Design data strucrures and algorithms for computational problems  • Develop computer programmes using data structures and algorithms	

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S		Programme Title	Fees	Venue	Prog.	Programme Co-	Date			Target Participant /	Programme Outcomes
N	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
8:	CU57B	Industrial measurement and Control system	700	Guw	Contact	Subrata Chattopadhyay	24-06-2024	28-06-2024	1	Faculty of Electrical, Electronics and Communication, Mechanical, Electronics & Instrumentation disciplines	After completion of the programme, the participants will be able to  • Explain the pressure, Temperature, Flow & Level Measurement system in industry  • Utilize the various measuring instruments in hazardous areas in process plant  • Design P, PI, PID control system  • Design the conventional complex control system like ratio, cascade, feed forward, selective, override etc.  • Apply the control system in distillation column in industry Explain the fundamental of PLC, DCS and SCADA
8.	PS22F	Thesis and Research paper writing	Free	Kolkata	Hybrid	Rayapati Subbarao	24-06-2024	05-07-2024	2	Faculty from all disciplines	After completion of the programme, the participants will be able to Identify stages in thesis writing. Discuss the results in a refined way. Identify the scope of a thesis. Derive conclusions from the plots and contours made. Illustrate how to guide/write M.S/Ph.D thesis. Communicate a paper in their area of research.

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SI	Prog.	Programme Title	Fees	Venue	Prog.	Programme Co-	Da	te	_	Target Participant /	Programme Outcomes
N	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
									>		
84	. CU58B	MATLAB Applications in Engineering	1400	Kolkata	Contact	Soumitra Kumar Mandal	24-06-2024	05-07-2024		Faculty and Lab Technician of Engineering and Polytechnic Colleges in Electrical Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Instrumentation Engineering,	After completion of the programme, the participants will be able to  Illustrate fundamentals of MATLAB  Implement MATLAB Applications in Electrical Circuit, Control Engineering, Analog Electronics, Power System, and Power Electronics  Demonstrate application of Fuzzy toolbox

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SI		Programme Title	Fees	Venue	Prog.	Programme Co-	Da	te	×	Target Participant /	Programme Outcomes
No.	Code		(Rs.)		Mode	ordinator(s)	From	То	Week	Group	
85	. PS23A	Advanced Pedagogy	3000	Kolkata	ІСТ	Urmila Kar	24-06-2024	05-07-2024		Faculty members and Technicians from Polytechnics, Engg. Colleges, Degree Colleges, Universities and other HEIs	After completion of the programme, the participants will be able to  Identify the need for Advanced Pedagogy Explain different Advanced Pedagogy Approaches  Explain the quality issues in Technical Education and the Role of Teachers  Discuss recent trends in curriculum design  Map outcomes to learning activities  Practice a few active learning techniques  Engage students in complex problemsolving and critical thinking  Design tools for assessing learning  Incorporate technology in teaching to enhance the teaching-learning process  Plan teaching for Education 4.0

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Application Form Link: <a href="https://payments.billdesk.com/bdcollect/bd/nittkolkata/10074">https://payments.billdesk.com/bdcollect/bd/nittkolkata/10074</a> (For Paid Course)

#### **GENERAL INSTRUCTIONS TO THE PARTICIPANTS**

- ➤ Please send your application 20 days (for Contact Mode FDP) and preferably 7 days (for ICT/Online mode FDP) before the commencement of the programme.
- > Applicants may send their applications by email/Post/Application Link (see institute's website: http://www.nitttrkol.ac.in) along with payment details for each programme.
- > Participants are requested to submit only one application for a particular Faculty Development Programme (FDP)/ Short Term Training Programme (STTP).
- > Selected participants will be received confirmation mail from the Academic Affairs. **Without prior** confirmation nobody will be allowed to attend the training programme.
- Participants are advised to complete the registration formalities before 9:30 a.m. on the first day of the programme at the Academic Affairs of NITTTR, Kolkata for offline programmes.
- After completing the registration formalities, you need to report to the respective coordinator(s). Necessary guidance from the Academic Affairs will be given in this respect.
- > Last day of the training programme, certificates will be distributed by the coordinator(s) along with a release letter in case of offline courses and to be sent by mail in case of online courses.
- > No leave(s) permissible during the training programme, except in case of emergency with submission of evidence of reason.
- > The participants will be relieved only on the last day of the programme at 5.30 pm. If participants do not attend the full programme, neither certificate nor TA will be paid to them.
- > The participants willing to attend the programmes at Extension Centers should contact the respective Consultant, Extension Centre / Academic Affairs for accommodation confirmation and food facility.
- > **Essential Requirements for Certification:** i) Minimum 80% Attendance ii) Achievement of Minimum 40% of Total Assessment.
- > Training programmes scheduled at extension centres are state specific and open only for respective state participants.
- > Participants only from the Government and Government Aided / Government sponsored Institutes will be reimbursed TA as per Institute's rules.
- Participants from North Eastern (NE) States and A&N Islands are entitled to travel by air (economy class) and the same will be reimbursed on production of proof of to and fro travel ticket(s). Tickets are to be purchased from the authorized travel agent of Govt. of India as announced time to time.
- > The participants from the provinces other than N.E. states will be reimbursed 3<sup>rd</sup> AC train or equivalent fare.
- > Boarding and Lodging facilities are provided on a sharing basis. Family members are not allowed to stay in the Guest Houses.
- > Course Fees will be charged as per the Category of the Training Programme and it can be remitted through NEFT, Bank Transfer or through demand draft drawn in favour of Director, NITTTR, Kolkata payable at Kolkata.

#### **Bank details:**

Name of the Bank: State Bank of India, Sector – 1, Salt Lake Branch, Bank Holder: NITTTR, Kolkata, Bank A/c No.: 00000034181726656,

IFSC Code: SBIN0001612

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#### Course Fee Details:

Category of FDP	Category - A	Category - B	Category - C	FREE		
Fees per participant	Rs. 1500/-	Rs. 700/-	Rs. 300/-	No fees		
per week						

➤ Participants from Private and Self Financed Institutes will not be paid TA. These participants can avail Boarding and Lodging facilities in Executive Hostels, by paying fees Rs. 300/- per bed/day for Accommodation Charge and Meal Charge of Rs. 250/- per day per participant (rate may vary from time to time), working lunch is free.

#### Processing TA:

- > Those who are eligible to reimburse TA should apply in the prescribed form available in the Academic Affairs along with all supporting documents with signature from the course coordinator(s) and submit to the academic section.
- ➤ TA will be reimbursed directly to the bank account of the trainee.

#### Instructions to participants from NE States and A&N Islands regarding purchase of Air Ticket:

Air tickets shall be purchased positively only from the three Authorized Travel Agents (ATAs), namely:

- (a) M/s. Balmer Lawrie & Company Limited (BLCL),
- (b) M/s. Ashok Travels & Tours (ATT),
- (c) Indian Railways Catering and Tourism Corporation Ltd. (IRCTC)

The choice of the travel agent for booking of ticket from the three-authorized travel agents is left open to the Govt. official in case of self-booking, based on convenience and service quality. No agency charges / convenience fees will be paid to these ATAs.

Participants are to choose flight having the **Best Available Cheapest Fare**, where possible for Non-stop flight in a given slot, mentioned below, at the time of booking. They are to retain the print-out of the concerned webpage of the ATAs having flight and fare details for the purpose of the settlement claims.

- (a) On the day of travel in the desired 3 hours' slot of following time band 00:00 hours to 03:00 hours, 03:00 hours to 06:00 hours, 06:00 hours to 09:00 hours, 09:00 hours to 12:00 hours, 12:00 hours to 15:00 hours, 15:00 hours to 18:00 hours, 18:00 hours to 21:00 hours, 21:00 hours to 24:00 hours
- (b) With provision of optimizing within 10% price bank, for convenience and comfort.

# Henceforth relaxation on account of ignorance/unawareness of these guidelines will not be considered under any condition.

#### How to Reach NITTTR, Kolkata:

The Institute is located in FC Block, Sector-III in Salt Lake City (near Labony Island). It is well communicated by road with Howrah Railway Station (about 8.1 km via Maniktala Main Road), Sealdah Railway (7.4 km) via Beliaghata Main Road and Broadway Road), Kolkata Railway Station (4.8 km) via Canal Circular Road, Shalimar Station (18.8 km) via Parama Island Maa Flyover, Netaji Subhas Chandra Bose International Airport (11.5 km) via Kazi Nazrul Islam Sarani/VIP Road.