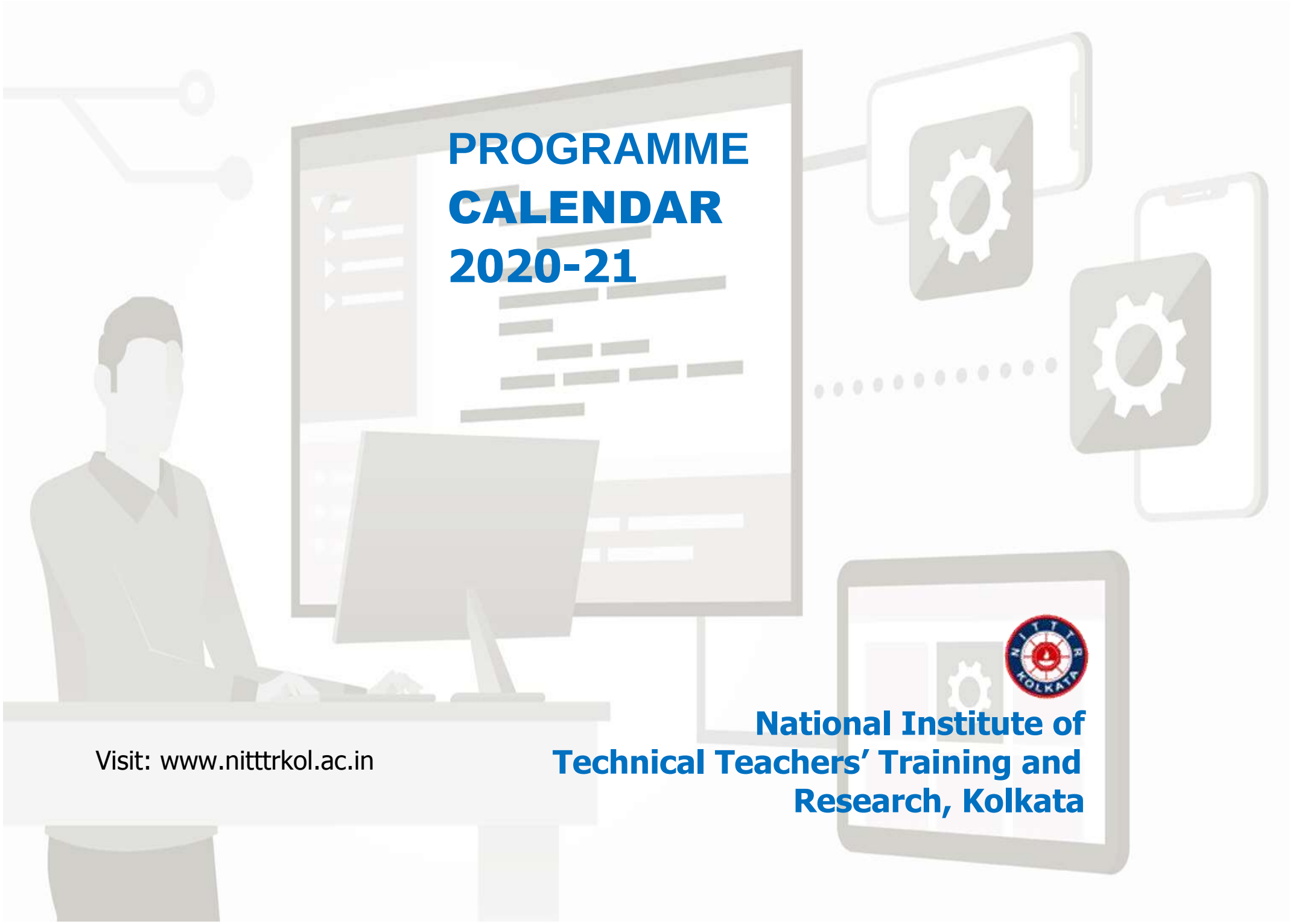


PROGRAMME CALENDAR 2020-21

Visit: www.nitttrkol.ac.in

National Institute of Technical Teachers' Training and Research, Kolkata

TECHNICAL EDUCATION MISSION 2020

TECHNICAL EDUCATION VISION 2020

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.

CONTENTS

Faculty and Staff Members of NITTTR, Kolkata

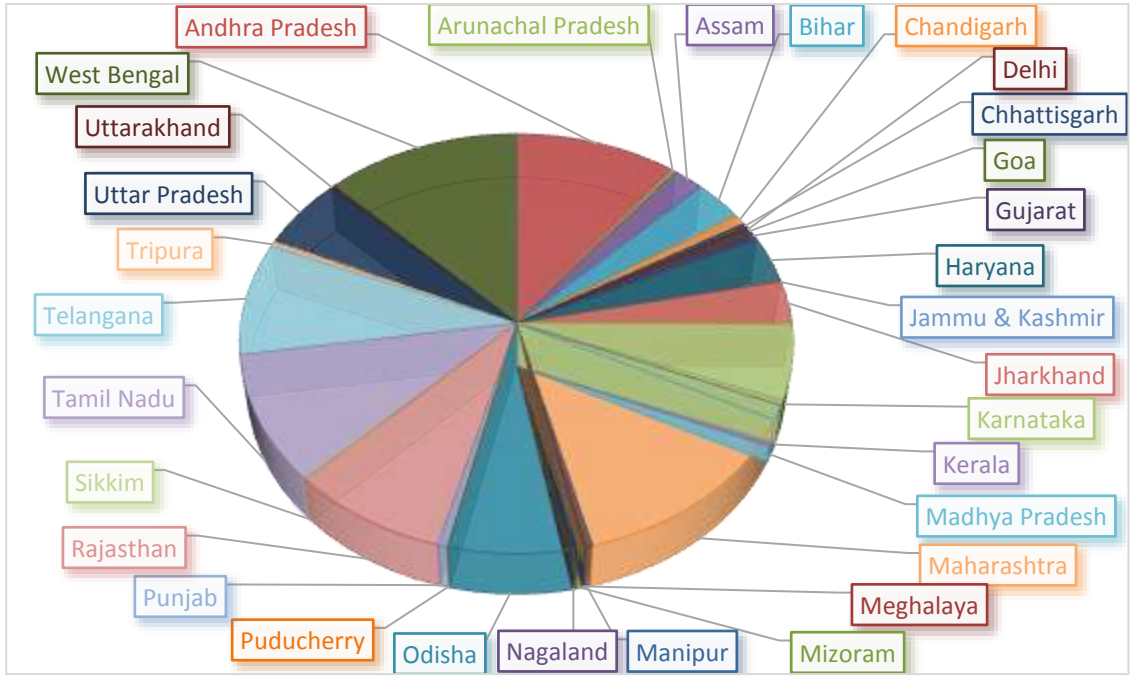
Preface

Like previous years, National Institute of Technical Teachers' Training & Research (NITTTR), Kolkata has prepared its Programme Calendar for the year 2020 – 21 based on the training need analysis (TNA) conducted for the technical institutes of Eastern Region of the country. The TNA questionnaire was prepared to receive feedback on the attributes like past training experiences, content updating / refreshment advancement in respective subjects / specialization areas and Education, Pedagogy, Teaching Skill Development, Curriculum Development, Rural & Community Development, Media Development, Maintenance of Office Equipment, Management, Communication etc.

In order to fulfill the needs of technical teachers of the eastern regions, 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
5. Collaborative Programmes

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 (FDP) under TEQIP/NEQIP 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.



GENERAL INSTRUCTIONS

- Please send your application preferably 15 days before the commencement of the programme.
- Normally course will commence at 10:00 a.m. as per venue. Participants are advised to complete the registration formalities before 10:00 a.m. on the first day of the programme.
- Outstation participants are advised to avail the Hostel facility one day before the commencement of their programme.
- In all cases, the selection letters will be despatched before the date of commencement of the course.
- All applications should be forwarded through proper channel. Applications without the recommendation of the sponsoring authority will not be entertained.
- All participants should have to produce the release letter at the time of the joining in the course. Separate release order should be produced against each course.
- Applicants may send their applications by Email/Post or the same can be directly submitted in the Despatch Section of NITTTR, Kolkata.
- In case the date of commencement of course happens to be a holiday, the course may be held as announced.
- Participants are requested to submit only one application for a particular Short-Term Training Programme.
- Accommodation is available in our Institute Hostel on first-come-first-served on SHARING BASIS from Sunday to Saturday during training days but FAMILY ACCOMMODATION WOULD NOT BE AVAILABLE.

NORMS OF THE PROGRAMMES

I. Contact Mode *(Kolkata Main Campus, Bhubaneswar Extension Centre and Guwahati Extension Centre)*

a) For Government and Government aided Polytechnics / Engineering Colleges / Universities

Course fee

- No course fee is charged

Travelling Allowances

- Participants attended the programme(s) are entitled for reimbursement of Travelling Allowances by NITTTR, Kolkata as per our Institute norms. Fare will be reimbursed on providing proof of to and fro travel.
- Contractual and Part Time Faculty / Staff members attending the programme(s) are entitled for minimum Train / Bus fare.

Air fare, if eligible (Grade Pay Rs. 5400/- as per 6th CPC / Pay Level 9 as per 7th CPC of Govt. of India and above eligible for Air travel in Economy class) *will be reimbursed only if travelled by Air India and Air Ticket(s) are purchased directly from Air India/from the Official Website of Air India. However, Air Ticket(s) may also be purchased from Authorized Travel Agent of Govt. of India as announced from time to time. As of now, authorized travel agents of Govt. of India are M/s Ashoke Tours & Travels, M/s Balmer Lawrie and IRCTC.*

Boarding / Lodging

- Transit DA will be permissible as per Institute rules. However, free boarding and lodging will be provided by the Institute. There will be no financial liability on the institute if the participants do not stay in accommodation provided by NITTTR, Kolkata and make their own arrangement. No DA will be permissible for the duration of the programme.

b) For Self-financing Polytechnics / Engineering Colleges / Universities

Course fee

- No course fee is charged

Travelling Allowances

- Not permissible

Boarding / Lodging

- Participants can avail Hostel facility of NITTTR, Kolkata on payment basis of Rs. 300/- per bed/day for Accommodation Charge and Meal Charge of Rs. 250/- per day per participant.
- Subject to the availability of the bed in the hostel.

c) For Participant from under TEQIP III Prroject and Industry :

Course fee

- Rs. 7,000/- per participants per week. The fee has to be paid through a demand draft in favour of "Director, NITTTR, Kolkata" payable at any branch of any bank at Kolkata, in advance, prior to commencement of programme.

Travelling Allowances

- Not permissible

Boarding / Lodging

- Participants can avail Hostel facility on payment basis of Rs. 500/- per bed / day for Accommodation Charge and Meal Charge of Rs. 250/- per day per participant.
- Subject to the availability of the bed in the hostel.

II. ICT Mode

For Participants from all Polytechnics / Engineering Colleges / Universties

Course fee

- No course fee is charged

Travelling Allowances

- Not permissible

Broad guidelines for Expenditure are as under:

- Writing Pad & Pen @ Rs. 25/- per participant
- Working Lunch and Tea @ Rs. 80/- per participant per day
- No TA/DA
- Maximum 50 participants from the Institute participated in the classroom.
- On successful completion of the programme, certificate(s) shall be provided to the participants in the standard format (Hard copy). In order to process your claim, as stipulated above, which should be addressed to the Director of the Institute. The documentation should be full proof viz., bills, vouchers, should be duly counter signed by the competent authority of the Institute along with attendance sheet.

III. In-House Programmes

Demand based training programmes/workshop will be organized in the campus of the client Institutes with flexible duration according to the convenience of course co-ordinator and client Institute.

a) For Government and Government aided Polytechnics / Engineering Colleges / Universities

a) Batch size of 30-35
b) No Course Fee
c) No TA/DA of the participants
d) Tea / Coffee during the session and other expenses like stationery, course materials and photocopy etc. will be borne by NITTTR, Kolkata
e) Travel cost on actual for Resource Persons (maximum 2 resource persons for one week programme) from NITTTR, Kolkata to be borne by Host Institute
f) Local hospitality, logistics etc. for the Resource Persons to be borne by Host Institute
g) All other expenses for conducting the programme to be incurred by the Host Institute.

b) For Self-financing Polytechics / Engineering Colleges / Universities and under TEQIP III Project

a) Batch size of 30 – 35
b) Course Fee(s) Rs. 8,000/- per session (two sessions per day) Rs. 16,000/- per day as per norms of NITTTR, Kolkata
c) Travel cost on actual for Resource Persons (maximum 2 resource persons for one week programme) from NITTTR, Kolkata to be borne by Host Institute
d) Local hospitality, logistics etc. for the Resource Persons to be borne by Host Institute
e) All other expenses for conducting the programme to be incurred by the Host Institute
f) Payment should be made through cheque in the name of **"Director, NITTTR, Kolkata" or by NEFT**.

IV. Special Programmes

Tailor-made training Programmes/Workshops will be conducted at the main campus or any one of the Extension Centres of the Institute at Bhubaneswar/Guwahati to cater to the special needs felt by the Directorates of Technical Education or organizations/Industry. Interested institutes / organizations are invited to send their proposals to the Director, NITTTR, Kolkata.

V. Collaborative Programmes

Such programmes will be conducted in collaboration with technical institutions / industries by sharing of resources on chargeable basis. The Institute has organized such programmes in collaboration with national and international organizations like Colombo Plan Staff College, United Nations Educational, Scientific & Cultural Organization (UNESCO), International Centre for Technical and Vocational Education and Training of UNESCO-UNIVOC, United Nations Development Programme, Department of Science & Technology, Govt. of West Bengal and Industries like Indian Oil Corporation and various reputed technical institutions. Special courses were offered for personnel of Indian Railways Institute of Mechanical and Electrical Engineering and State Resource Centre for Adult Education, West Bengal. Interested organizations/ institutions are invited to contact Director, NITTTR, Kolkata.

PARTICIPANTS' PROFILE

The training programmes are open to sponsored in service teachers and staff of degree and diploma level technical institutions of the country and also to the sponsored serving professionals from field / industry.

However, the programmes organized at Extension Centers are open to participants, only from technical institutions of respective State/ Region, as specified.

Intending participants may use photocopy of the Application Form given below for registration to each STTP. The filled-in-form should be sent through proper channel/appropriate sponsoring authority. Application Form should be sent to the Academic Co-ordinator at NITTTR, Kolkata and to the Consultant in respective Extension Centre.

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.

APPLICATION FORM

1. Prog. Code

2. (a) Programme Title :

   (b) Date : From To

   (c) Programme Coordinator(s) :

3. (a) Name (in CAPS) : First | Middle | Last

   (b) Designation :

   (c) Department :

   (d) Institution :

   (e) Contact Address (Office) : Pin: State

   (f) Contact Number : Mobile | Phone | Fax

   Email

4. Highest Academic Qualification:

Degree/Diploma	University/Others	Year of Passing	Class Obtained

5. (a) Experience (in years) : Teaching Industry/Field

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

APRIL, 2020

1st Week (6-10)		2nd Week (13-17)		3rd Week (20-24)		4th Week (27-01)	
				BBSR01	Programming in C++ Methodologies Rajeev Chatterjee & Samir Roy 20/04/2020 - 24/04/2020	BBSR02	Environmental Pollution and Health Sailendra Nath Mandal 27/04/2020 - 01/05/2020
						GUW01	Estimating & Costing of Non-Conventional Energies Sheela Yadav Rai 27/04/2020 - 01/05/2020
		CU01	Advance Programming in C Rajeev Chatterjee 13/04/2020 - 17/04/2020	CU02	Development of Mechanical Engineering Experiments and Laboratory Instruction Sheets Samiran Mandal 20/04/2020 - 24/04/2020	CU03	Numerical and Statistical Methods with PYTHON Kinsuk Giri 27/04/2020 - 01/05/2020
		MGT01	Research Methodology and Intellectual Property Right (IPR) Chandan Chakraborty 13/04/2020 - 24/04/2020	PS01	Outcome Based Accreditation and NBA Urmila Kar 20/04/2020 - 24/04/2020	CU04	CAD/CAM Nirmal Kumar Mandal 27/04/2020 - 01/05/2020
				PS02	Skill Assessment in Laboratory and Guiding Students' Project Sagarika Pal 20/04/2020 - 24/04/2020	PS03	HRD through Training and Development Sukanta Kumar Naskar 27/04/2020 - 01/05/2020
				ICT01	NBA Accreditation and SAR Preparation Rayapati Subbarao 11/05/2020 - 15/05/2020	ICT02	Measurement and Control of Industrial Automation Sagarika Pal & Subrata Chattopadhyay 27/04/2020 - 01/05/2020

MAY, 2020

1st Week (4-8)		2nd Week (11-15)		3rd Week (18-22)		4th Week (25-29)	
BBSR03	Management of Laboratory and Workshop Classes Dipankar Bose 04/05/2020 - 08/05/2020			BBSR04	Utilization of Instructional Media and CAI in Effective Teaching Subrata Chattopadhyay 18/05/2020 - 22/05/2020		
GUW02	Applications of MATLAB in Control Ssytem, Image Processing, Fuzzy Logic and Circuit Simulation Sagarika Pal 04/05/2020 - 08/05/2020			GUW03	Outcome Based Accreditation and NBA Urmila Kar 18/05/2020 - 22/05/2020		
CU05	Compiler Design Samir Roy 04/05/2020 - 08/05/2020	CU08	Civil Engineering Laboratory Practice (Brick, Cement, Aggregates, Concrete including demonstration of NTD and SDT) Uday Chand Kumar 11/05/2020 - 15/05/2020	CU12	Electricity Act, Rules & Code of Practices Prasanta Sarkar 18/05/2020 - 22/05/2020		
CU06	Introduction to Robotics Samiran Mandal 04/05/2020 - 08/05/2020	CU09	Medical Electronics Subrata Chattopadhyay 11/05/2020 - 15/05/2020	CU13	Laboratory and Field Testing of Soil and Preparation of Soil Investigation Report Jagat Jyoti Mandal 18/05/2020 - 29/05/2020		
CU07	Refresher course on Analog & Digital Electronics Soumitra Kumar Mandal 04/05/2020 - 15/05/2020	CU10	Fluid Power Dipankar Bose 11/05/2020 - 15/05/2020	CU14	Networking Principles, Management and Administration Rajeev Chatterjee 18/05/2020 - 29/05/2020		
		CU11	Testing & Purification of Drinking Water and Health Sailendra Nath Mandal 11/05/2020 - 22/05/2020	PS05	Problem Based Learning Arpan Kumar Mondal, Indrajit Saha, Sagarika Pal, Kinsuk Giri 18/05/2020 - 29/05/2020		
		PS04	Institutional Development Sukanta Kumar Naskar 11/05/2020 - 15/05/2020				
		ICT03	Advanced Welding Processes and Physics of Welding Arpan Kumar Mondal 11/05/2020 - 15/05/2020	ICT04	Skill Assessment in Laboratory and Workshop Dipankar Bose 18/05/2020 - 22/05/2020		

JUNE, 2020

1st Week (1-5)		2nd Week (8-12)		3rd Week (15-19)		4th Week (22-26)	
BBSR05	Induction Training Subrata Mondal 01/06/2020 - 05/06/2020	BBSR06	Structural Analysis and Design with new Generation Software Santanu Bhanja 08/06/2020 - 12/06/2020			BBSR07	Introduction to PYTHON Programme Kinsuk Giri 22/06/2020 - 26/06/2020
GUW04	Choice Based Credit System (CBCS) and Student's Performance Evaluation Chandan Chakraborty 01/06/2020 - 05/06/2020			GUW05	Electricity Act, Rules & Code of Practices Prasanta Sarkar 15/06/2020 - 19/06/2020		
CU15	Laboratory Practice on Building Materials & NDT Mithu Dey 01/06/2020 - 05/06/2020	CU20	Programming and Automation using PLC Sagarika Pal & Subrata Chattopadhyay 08/06/2020- 12/06/2020	CU23	Artificial Intelligence Samir Roy 15/06/2020 - 19/06/2020	CU25	Philosophy of RCC Design as per IS: 456-2000 Santanu Bhanja 22/06/2020 - 26/06/2020
CU16	Database Design Theory and Practice Ranjan Dasgupta 01/06/2020 - 05/06/2020	CU21	IP Networking Rajeev Chatterjee 08/06/2020 - 19/06/2020	CU24	Modeling and Analysis of Linear Control Systems Urmila Kar 15/06/2020 - 19/06/2020	CU26	Renewable Energy Sources and Emerging Technologies Sheela Yadav Rai 22/06/2020 - 26/06/2020
CU17	Waste Analysis and Management Sailendra Nath Mandal 01/06/2020 - 12/06/2020	CU22	Theory & Practice –Turning, Milling and Drilling Dipankar Bose & Samiran Mandal 08/06/2020 - 12/06/2020	PS07	Induction Training Arpan Kumar Mondal, Indrajit Saha, Sagarika Pal, Kinsuk Giri 15/06/2020 - 26/06/2020	CU27	Laboratory Testing on Soil and Preparation of Report Uday Chand Kumar & Jagat Jyoti Mandal 22/06/2020 - 26/06/2020
CU18	LABVIEW & MATLAB Applications in Electrical & Electronics Engineering Soumitra Kumar Mandal 01/06/2020 - 12/06/2020	PS06	How to Write Thesis and Research Paper Rayapati Subbarao 08/06/2020 - 12/06/2020	MGT02	Laboratory Safety Management Subrata Mondal 15/06/2020 - 26/06/2020	CU28	Probability and Statistics Chandan Chakraborty 22/06/2020 - 03/07/2020
CU19	CNC Machines Nirmal Kumar Mandal 01/06/2020 - 12/06/2020					PS08	Student Mentorship Habiba Hussain 22/06/2020 - 26/06/2020
ICT05	Electricity Act, Rules & Code of Practices Prasanta Sarkar 01/06/2020 - 05/06/2020			ICT06	Instructional Planning Samiran Mandal 15/06/2020 - 19/06/2020		

JULY, 2020

1st Week (29-3)		2nd Week (6-10)		3rd Week (13-17)		4th Week (20-24)		5th Week (27 – 31)	
BBSR08	Induction Training Sukanta Kumar Naskar 29/06/2020 - 10/07/2020			BBSR09	Design of Steel Structures Mithu Dey 13/07/2020 - 17/07/2020			BBSR10	Instructional Planning Samiran Mandal 27/07/2020 - 31/07/2020
GUW06	Numerical and Statistical Methods with SCILAB Kinsuk Giri 29/06/2020 - 03/07/2020			GUW07	Approaches in Designing Curriculum Sukanta Kumar Naskar 13/07/2020 - 17/07/2020			GUW08	NBA Accreditation and SAR Preparation Rayapati Subbarao 27/07/2020 - 31/07/2020
CU29	Data Structures Samir Roy 29/06/2020 - 03/07/2020	CU32	Theory, Operation and Experimentation on Sensors, Transducers & Actuators Sagarika Pal & Subrata Chattopadhyay 06/07/2020 - 10/07/2020	CU36	Engineering Thermodynamics and its Applications Rayapati Subbarao 13/07/2020 - 17/07/2020	CU37	Pattern Recognition: Theory & Applications Chandan Chakraborty 20/07/2020 - 24/07/2020	CU39	Design & Detailing of Reinforced Concrete Structural Elements Jagat Jyoti Mandal 27/07/2020 - 07/08/2020
CU30	Application of MATLAB in Engineering Prasanta Sarkar 29/06/2020 - 03/07/2020	CU33	Power Generation from Energy Resources Sheela Yadav Rai 06/07/2020 - 10/07/2020	MGT03	Leadership & Team Building in Academia Habiba Hussain 13/07/2020 - 17/07/2020	CU38	Workshop Practice in Mechanical Engineering Arpan Kumar Mondal 20/07/2020 - 31/07/2020	CU40	Problem Solving with SCILAB Kinsuk Giri 27/07/2020 - 07/08/2020
CU31	Three Dimensional Modelling with AUTOCAD and SOLIWORKS Nirmal Kumar Mandal 29/06/2020 - 10/07/2020	CU34	Automobile Engineering Samiran Mandal 06/07/2020 - 10/07/2020	PS10	Development of Laboratory Instruction Sheets Dipankar Bose 13/07/2020 - 17/07/2020	MGT04	Essentials of Strategic Management Sukanta Kumar Naskar 20/07/2020 - 24/07/2020	CU41	Software Engineering: Theory and Practice Ranjan Dasgupta 27/07/2020 - 07/08/2020
		CU35	Big Data Analytics Chandan Chakraborty & Kinsuk Giri	PS11	Engineering Capstone Project Prasanta Sarkar 13/07/2020 - 17/07/2020	PS12	Laboratory Experimentation in Engineering Chemistry Sailendra Nath Mandal 20/07/2020 - 24/07/2020	CU42	Fundamental and Applications of Nanomaterials Subrata Mondal 27/07/2020 - 07/08/2020
		PS09	Development of Laboratory Instruction and Manual Subrata Mondal 06/07/2020 - 10/07/2020			PS13	Induction Training (Phase I & Phase II) Urmila Kar 20/07/2020 - 31/07/2020		
ICT07	Fundamentals of Network Security Indrajit Saha & Ranjan Dasgupta 29/06/2020 - 03/07/2020			ICT08	Laboratory Safety Management Subrata Mondal 13/07/2020 - 17/07/2020	ICT09	Induction Training Sagarika Pal & Subrata Chattopadhyay 20/07/2020 - 24/07/2020	ICT10	Development of Laboratory and Workshop Instructions Nirmal Kumar Mandal 27/07/2020 - 31/07/2020

AUGUST, 2020

1st Week (3-7)		2nd Week (10-14)		3rd Week (17-21)		4th Week (24-28)	
BBSR11	Computer Numerical Controlled Machines: Constructional Features and Programming Nirmal Kumar Mandal 03/08/2020 - 07/08/2020	BBSR12	Ecology and Environmental Studies Uday Chand Kumar 10/08/2020 - 14/08/2020			BBSR13	Electricity Act, Rules & Code of Practices Prasanta Sarkar 24/08/2020 - 28/08/2020
		GUW09	Mobile and Wireless Network Rajeev Chatterjee 10/08/2020 - 14/08/2020			GUW10	Engineering System Modelling Nirmal Kumar Mandal 24/08/2020 - 28/08/2020
CU43	Programming and Applications using LABVIEW Sagarika Pal 03/08/2020 - 07/08/2020	CU45	Automated Manufacturing Systems Nirmal Kumar Mandal 10/08/2020 - 14/08/2020	CU48	Estimating & Costing of Non-Conventional Energies Sheela Yadav Rai 17/08/2020 - 21/08/2020	CU51	Repair and Rehabilitation of RCC Structures with special emphasis on Earthquakes Santanu Bhanja 24/08/2020 - 28/08/2020
CU44	Multimedia Tools and It's Applications Indrajit Saha 03/08/2020 - 14/08/2020	CU46	Data Science with R programming Chandan Chakraborty 10/08/2020 – 21/08/2020	CU49	Introduction to Optical Fibre & Its Application Subrata Chattopadhyay 17/08/2020 - 21/08/2020	CU52	Design and Analysis of Algorithms Samir Roy 24/08/2020 - 28/08/2020
PS14	Writing Research Proposals Habiba Hussain 03/08/2020 - 07/08/2020	CU47	Basics of Computer, IT and ITes for Faculty and Stuff Arpan Kumar Mondal 10/08/2020 - 21/08/2020	CU50	Product Design Samiran Mandal 17/08/2020 - 21/08/2020	CU53	Computational Techniques for Mechanical Engineers Rayapati Subbarao 24/08/2020 - 28/08/2020
				PS15	Problem Solving and Decision Making Sukanta Kumar Naskar 17/08/2020CU44 - 21/08/2020		
ICT11	Environmental Consciousness Sailendra Nath Mandal 03/08/2020 - 07/08/2020	ICT12	Professional Values, Ethics and Sustainability Development Mithu Dey 10/08/2020 - 14/08/2020	ICT13	Designing Teaching under Outcome Based Education Urmila Kar 17/08/2020 - 21/08/2020	ICT14	Fundamental Concepts of Geotechnical Engineering Jagat Jyoti Mandal 24/08/2020 - 28/08/2020

SEPTEMBER, 2020

1st Week (31-4)		2nd Week (7-11)		3rd Week (14-18)		4th Week (21-25)	
		BBSR14	Essentials of Strategic Management Sukanta Kumar Naskar 07/09/2020 - 11/09/2020	BBSR15	Renewable Energy Sources and Emerging Technologies Sheela Yadav Rai 14/09/2020 - 18/09/2020	BBSR16	Medical Instrumentation Subrata Chattopadhyay 21/09/2020 - 25/09/2020
GUW11	Environmental Pollution Analysis and Health Sailendra Nath Mandal 31/08/2020 - 11/09/2020					GUW12	Design and Analysis of Algorithms Samir Roy 21/09/2020 - 25/09/2020
CU54	Data Analysis using MATLAB Indrajit Saha 31/08/2020 - 04/09/2020	CU57	Advanced Process Control using PLC, DCS and SCADA Sagarika Pal & Subrata Chattopadhyay 07/09/2020 - 11/09/2020	CU62	Mathematics with Engineering applications and Graphical Interpretations Nirmal Kumar Mandal 14/09/2020 - 18/09/2020	CU65	Basics of Welding Processes and CNC Machining Arpan Kumar Mondal 21/09/2020 - 25/09/2020
CU55	Polymer Composites and Nanocomposites Subrata Mondal 31/08/2020 - 04/09/2020	CU58	Power Plant Engineering Rayapati Subbarao 07/09/2020 - 11/09/2020	CU63	Exposure in Optimization Kinsuk Giri 14/09/2020 - 18/09/2020	CU66	Refresher course on Microprocessors & Microcontrollers Soumitra Kumar Mandal 21/09/2020 - 02/10/2020
CU56	Advanced Welding Processes and Physics of Welding Arpan Kumar Mondal 31/08/2020 - 11/09/2020	CU59	Analysis and Design of Structures by Limit State Method using Software Mithu Dey 07/09/2020 - 11/09/2020	CU64	Image Processing using MATLAB Indrajit Saha 14/09/2020 - 25/09/2020	PS17	Office Management (Using Software) Uday Chand Kumar 21/09/2020 - 25/09/2020
		CU60	Testing and Health Benefits of Drinking Water Sailendra Nath Mandal 07/09/2020 - 18/09/2020	PS16	Active Learning under Engineering Education Urmila Kar 14/09/2020 - 25/09/2020		
		CU61	Applied Machine Learning Chandan Chakraborty 07/09/2020 – 18/09/2020			MGT05	Essentials of HRM Sukanta Kumar Naskar 21/09/2020 - 25/09/2020
ICT15	Fundamentals of OBE Habiba Hussain 31/08/2020 - 04/09/2020			ICT16	An Introductory course on Ecology and Environmental Studies Uday Chand Kumar 14/09/2020 - 18/09/2020	ICT17	RCC Design – From Prescriptive as per Codes of Practice to Performance Based Santanu Bhanja 21/09/2020 - 25/09/2020

OCTOBER, 2020

1st Week (5–9)		2nd Week (12-16)		3rd Week (19-23)		4th Week (26-30)	
BBSR17	An Introductory course on Geotechnical Engineering Jagat Jyoti Mandal 05/10/2020 - 09/10/2020	BBSR18	Introduction of Accreditation Mechanism - NBA Approach Ranjan Dasgupta and Arpan Kumar Mondal 12/10/2020 - 16/10/2020				
		GUW13	Machine Learning and It's Applications Indrajit Saha 12/10/2020 - 16/10/2020				
CU67	Engineering Metrology Dipankar Bose 05/10/2020 - 09/10/2020	CU68	Modelling, Analysis and Design of Buildings with ETABS Santanu Bhanja 12/10/2020 - 16/10/2020				
PS18	Teaching Skill Development Habiba Hussain 05/10/2020 - 09/10/2020	CU69	Control Engineering with MATLAB Prasanta Sarkar 12/10/2020 - 16/10/2020				
		CU70	Solar PV System: Operation & Control Soumitra Kumar Mandal 12/10/2020 - 16/10/2020				
		ICT18	Introduction to Data Science and Machine Learning Chandan Chakraborty 12/10/2020 - 16/10/2020				

NOVEMBER, 2020

1st Week (2-6)		2nd Week (9-13)		3rd Week (16-20)		4th Week (23-27)	
BBSR19	Applications of MATLAB in Control System, Image Processing, Fuzzy Logic and Circuit Simulation Sagarika Pal 02/11/2020 - 06/11/2020			BBSR20	Thermodynamics and Power Plant Engineering Rayapati Subbarao 16/11/2020 - 20/11/2020	BBSR21	Laboratory Instructions in Electrical and Electronics Engineering Soumitra Kumar Mandal 23/11/2020 - 27/11/2020
GUW14	Fundamental and Applications of Nanomaterials Subrata Mondal 02/11/2020 - 06/11/2020			GUW15	AutoCAD for Engineers Mithu Dey 16/11/2020 - 20/11/2020		
CU71	Design of Earthquake Resistant RC Buildings with an Introduction to Shake Table Santanu Bhanja 02/11/2020 - 06/11/2020	CU75	Selection, Analysis and Design of Shallow Foundations Jagat Jyoti Mandal 09/11/2020 - 20/11/2020	CU76	Introduction to PYTHON Programming Kinsuk Giri 16/11/2020 - 20/11/2020	CU80	Design of Steel Structure Uday Chand Kumar & Mithu Dey 23/11/2020 - 27/11/2020
CU72	Mechanical Measurements and Control Samiran Mandal 02/11/2020 - 06/11/2020	PS19	Creative Problem Solving, Innovation and Meaningful R & D Chandan Chakraborty 09/11/2020 - 13/11/2020	CU78	Laboratory Instructions in Electrical Machine & Power System Lab Soumitra Kumar Mandal 16/11/2020 - 20/11/2020	CU81	Modeling and Analysis of Nonlinear Control Systems Urmila Kar 23/11/2020 - 27/11/2020
CU73	Testing of Drinking Water and Ambient Air Sailendra Nath Mandal 02/11/2020 - 13/11/2020	PS20	Community Development Through Technical Institutions Sheela Yadav Rai 09/11/2020 - 13/11/2020	CU79	Mathematics with Engineering Applications and Graphical Interpretations Nirmal Kumar Mandal 16/11/2020 - 20/11/2020	PS22	Introduction of Accreditation Mechanism-NBA Approach Ranjan Dasgupta & Arpan Kumar Mondal 23/11/2020 - 27/11/2020
CU74	Design of Payroll Systems using ORACLE Ranjan Dasgupta 02/11/2020 - 13/11/2020	PS21	Designing Teaching for Experiential Learning Habiba Hussain 09/11/2020 - 13/11/2020				
ICT19	Institutional Development Sukanta Kumar Naskar 02/11/2020 - 06/11/2020			ICT20	Artificial Intelligence Samir Roy 16/11/2020 - 20/11/2020	ICT21	Power Plant Instrumentation Sagarika Pal & Subrata Chattopadhyay 23/11/2020 - 27/11/2020

DECEMBER, 2020

1st Week (30-4)		2nd Week (7-11)		3rd Week (14-18)		4th Week (21-25)		5th Week (28-01)	
		BBSR22	Essentials of HRM Sukanta Kumar Naskar 07/12/2020 - 11/12/2020	BBSR23	RCC Design – Prescriptive Design as per IS:456-2000, IS:13920-2016 and beyond with application of Software Santanu Bhanja 14/12/2020 - 18/12/2020			BBSR24	Theory, Operation and Applications of Transducers & Actuators in Industry Subrata Chattopadhyay 28/12/2020 - 01/01/2021
GUW16	Control Engineering with MATLAB Prasanta Sarkar 30/11/2020 - 04/12/2020			GUW17	Introduction of Accreditation Mechanism-NBA Approach Ranjan Dasgupta & Arpan Kumar Mondal 14/12/2020 - 18/12/2020			GUW18	Concept Mapping in Teaching Learning Samiran Mandal 28/12/2020 - 01/01/2021
CU82	Network Infrastructure and Cloud Security Rajeev Chatterjee & Ranjan Dasgupta 30/11/2020 - 04/12/2020	CU85	Power Electronics in Power System Soumitra Kumar Mandal 07/12/2020 - 11/12/2020	CU87	Testing of Bottled Water and Health Sailendra Nath Mandal 14/12/2020 - 18/12/2020			CU91	Application of Total Station in present day Surveying Santanu Bhanja 28/12/2020 - 01/01/2021
CU83	Non-conventional Machining Processes Dipankar Bose 30/11/2020 - 04/12/2020	CU86	Application of AutoCAD in Engineering and Basic Sciences Mithu Dey 07/12/2020 - 11/12/2020	CU88	Advanced Materials Science and Engineering Subrata Mondal 14/12/2020 - 18/12/2020			CU92	Lab Experiment in Power Electronics and Drive Soumitra Kumar Mandal 28/12/2020 - 01/01/2021
CU84	Application of LABVIEW in Industrial Automation Sagarika Pal & Subrata Chattopadhyay 30/11/2020 - 11/12/2020	PS24	NBA Accreditation Rayapati Subbarao 7/12/2020 - 11/12/2020	CU89	Hydraulics and Pnumatics Dipankar Bose 14/12/2020 - 18/12/2020			CU93	Optimization with MATLAB Applications Nirmal Kumar Mandal 28/12/2020 - 01/01/2021
PS23	Role of Technical Institution in implementing Governmental Scheme e.g. CDTP, PWD, Community College Uday Chand Kumar 30/11/2020 - 04/12/2020	PS25	Research Methodology Urmila Kar 07/12/2020 - 18/12/2020	CU90	Circuit Simulation using PSpice Sagarika Pal 14/12/2020 - 18/12/2020			PS27	Induction Training Sukanta Kumar Naskar 28/12/2020 - 01/01/2021
				MGT06	Research Methodology in Engineering and Technical Writing using LaTeX Kinsuk Giri & Indrajit Saha 14/12/2020 - 24/12/2020				
				PS26	Pedagogical Communication Habiba Hussain 14/12/2020 - 18/12/2020				
		ICT22	Problem Based Learning Sagarika Pal, Indrajit Saha, Kinsuk Giri, Arpan Kumar Mondal 07/12/2020 - 11/12/2020					ICT23	Numerical and Statistical Methods with PYTHON Kinsuk Giri 28/12/2020 - 01/01/2021

JANUARY, 2021

1st Week (4-8)		2nd Week (11-15)		3rd Week (18-22)		4th Week (25-29)	
		BBSR25	Question Paper Designing and Student's Performance Evaluation Chandan Chakraborty 11/01/2021 - 15/01/2021			BBSR26	Control Engineering with MATLAB Prasanta Sarkar 25/01/2021 - 29/01/2021
		GUW19	Power Electronics in Power System Soumitra Kumar Mandal 11/01/2021 - 15/01/2021			GUW20	Power Plant Instrumentation Subrata Chattopadhyay 25/01/2021 - 29/01/2021
CU94	Formal Languages and Automata Samir Roy 04/01/2021 - 08/01/2021	CU98	Surveying (Chain, Plane Table, Compass, Levelling, Contouring, Layout of Building) Uday Chand Kumar 11/01/2021 - 15/01/2021	CU101	Design of Concrete Mix as per IS:10262-2019 Santanu Bhanja 18/01/2021 - 22/01/2021	CU105	Theory and Practices on Advanced Welding Processes: TIG, MIG, Pulsed TIG, Medium and Soft Plasma Arc Welding Arpan Kumar Mondal 25/01/2021 - 05/02/2021
CU95	Concept Teaching in Fluid Mechanics Dipankar Bose 04/01/2021 - 08/01/2021	CU99	Discrete Mathematics Kinsuk Giri 11/01/2021 - 15/01/2021	CU102	Solar PV System: Operation & Control Soumitra Kumar Mandal 18/01/2021 - 22/01/2021	PS30	Research in Technical Education Chandan Chakraborty 25/01/2021 - 29/01/2021
CU96	Testing of Pavement Materials, Analysis and Design of Flexible Pavements Jagat Jyoti Mandal 04/01/2021 - 15/01/2021	CU100	Power System Protection Sheela Yadav Rai 11/01/2021 - 15/01/2021	CU103	Production and Operations Management Samiran Mandal 18/01/2021 - 22/01/2021		
CU97	Applications of MATLAB in Control System, Image Processing, Fuzzy Logic and Circuit Simulation Sagarika Pal 04/01/2021 - 15/01/2021			CU104	Introduction to Soft Computing Samir Roy & Indrajit Saha 18/01/2021 - 29/01/2021		
PS28	Entrepreneurship Development Subrata Mondal 04/01/2021 - 08/01/2021						
PS29	Induction Training Habiba Hussain 04/01/2021 - 15/01/2021						
ICT24	Organizational Behaviour Mithu Dey 04/01/2021 - 08/01/2021	ICT25	Engineering Capstone Project Prasanta Sarkar 11/01/2021 - 15/01/2021	ICT26	Introduction to Coding Theory Rajeev Chatterjee 18/01/2021 - 22/01/2021		

FEBRUARY, 2021

1st Week (1-5)		2nd Week (8-12)		3rd Week 15-19)		4th Week (22-26)	
BBSR27	Outcome Based Accreditation and NBA Urmila Kar 01/02/2021 - 05/02/2021			BBSR28	Introduction to Network Security Indrajit Saha 15/02/2021 - 19/02/2021		
GUW21	Refresher Course in Strength of Material Jagat Jyoti Mandal 01/02/2021 - 05/02/2021			GUW22	Ecology and Environmental Studies Uday Chand Kumar 15/02/2021 - 19/02/2021		
CU106	Earthquake Resistant Structures using Software with Advanced Technology Mithu Dey 01/02/2021 - 05/02/2021	CU110	Modelling, Analysis and Design of structures using latest version of STAAD Santanu Bhanja 08/02/2021 - 12/02/2021	CU113	Data Science and Machine Learning Chandan Chakraborty 15/02/2021 - 19/02/2021	CU116	Pollution Testing Sailendra Nath Mandal 22/02/2021 - 05/03/2021
CU107	Introduction to Web Designing using PHP and MySQL Indrajit Saha & Kinsuk Giri	CU111	Advanced Welding Processes Dipankar Bose 08/02/2021 - 12/02/2021	CU114	MS Project Software Based Arpan Kumar Mondal & Nirmal Kumar Mandal 15/02/2021 - 19/02/2021	CU117	Mathematical Foundation of Computer Science Kinsuk Giri & Samir Roy 22/02/2021 - 05/03/2021
CU108	Transmission Line Parameters Sheela Yadav Rai 01/02/2021 - 05/02/2021	CU112	PLC & LABVIEW Applications in Engineering Soumitra Kumar Mandal 08/02/2021 - 19/02/2021	CU115	Lab Experiment in Electrical Motors, Electrical Machine and Control Prasanta Sarkar 15/02/2021 - 19/02/2021		
CU109	Refrigeration and Air Conditioning Rayapati Subbarao 01/02/2021 - 05/02/2021						
PS231	Design and Development of content for e-Learning Rajeev Chatterjee & Ranjan Dasgupta 01/02/2021 - 12/02/2021						
ICT27	Statistics for Data Analysis Chandan Chakraborty 01/02/2021 - 05/02/2021			ICT28	Renewable Energy Sources and Emerging Technologies Sheela Yadav Rai 15/02/2021 - 19/02/2021		

MARCH, 2021

1st Week (1-5)		2nd Week (8-12)		3rd Week (15-19)		4th Week (22-26)	
BBSR29	Designing Question Papers Habiba Hussain 01/03/2021 - 05/03/2021			BBSR30	Power Plant Instrumentation Subrata Chattopadhyay 15/03/2021 - 19/03/2021	BBSR31	Basics of Welding processes and CNC Machining Arpan Kumar Mondal 22/03/2021 - 26/03/2021
GUW23	Management of Laboratory and Workshop Classes Dipankar Bose 01/03/2021 - 05/03/2021			GUW24	Effective Teaching Habiba Hussain 15/03/2021 - 19/03/2021		
CU118	Transmission lines Faults Sheela Yadav Rai 01/03/2021 - 05/03/2021	CU120	Electrical Measurement and Instrumentation Subrata Chattopadhyay 08/03/2021 - 12/03/2021	CU122	Modeling and Analysis of Electrical Circuits and Networks Urmila Kar 15/03/2021 - 19/03/2021	CU123	Introduction to Machine Learning and Internet of Thinking Indrajit Saha & Chandan Chakraborty
CU119	Design of Web-applications using DBMS (PHP & MySQL) Ranjan Dasgupta 01/03/2021 - 12/03/2021	CU121	Applied Thermodynamics Rayapati Subbarao 08/03/2021 - 12/03/2021	MGT08	Analytics for Decision Making Chandan Chakraborty 15/03/2021 - 19/03/2021	CU124	HPC and Cloud Computing Ranjan Dasgupta & Kinsuk Giri 22/03/2021 - 26/03/2021
		MGT07	Awareness programme on Occupational Health and Safety Uday Chand Kumar 08/03/2021 - 12/03/2021	PS32	Make in India Concept – Role Start-up and Incubation Dipankar Bose & Arpan Kumar Mondal	CU125	PCB Design Soumitra Kumar Mandal 22/03/2021 - 26/03/2021
						CU126	Finite Element Analysis with Ansys applications Nirmal Kumar Mandal 22/03/2021 - 26/03/2021
ICT29	Fundamentals of Network Security Indrajit Saha 01/03/2021 - 05/03/2021			ICT30	Development of Laboratory Instruction and Manual Subrata Mondal 15/03/2021 - 19/03/2021	ICT31	NBA Accreditation and SAR preparation Rayapati Subbarao 22/03/2021 - 26/03/2021

A. NATIONAL LEVEL SHORT TERM TRAINING PROGRAMMES

The schedule of Short Term Training Programmes (STTP) to be conducted by NITTTR, Kolkata during the year 2020 - 21 is given below.

I. CONTENT UPDATING (CU) VENUE: NITTTR, KOLKATA

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
1.	CU01	Advance Programming in C	Rajeev Chatterjee	13/04/2020	17/04/2020	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.
2.	CU02	Development of Mechanical Engineering Experiments and Laboratory Instruction Sheets	Samiran Mandal	20/04/2020	24/04/2020	1	Faculty of Mechanical and allied disciplines	After attending the programme, the participants will be able to • classify the laboratory experiments • develop laboratory experiments • plan the laboratory instruction • prepare laboratory instruction sheets • evaluate laboratory skills
3.	CU03	Numerical and Statistical Methods with PYTHON	Kinsuk Giri	27/04/2020	01/05/2020	1	Faculty of all disciplines	On successful completion of the programme the participants will be able to • get an overview on different numerical ans statistical methods • get an overview on solution techniques • solve problems using PYTHON
4.	CU04	CAD/CAM	Nirmal Kumar Mandal	27/04/2020	01/05/2020	1	Faculty and Instructor of Mechanical and allied disciplines	• After attending the programme the participants will be able to • Define automation. • Classify automation. • Operate automated system.
5.	CU05	Compiler Design	Samir Roy	04/05/2020	08/05/2020	1	Faculty of CSE, IT, BCA, MCA	After successful completion of the programme, the participants will be able to • Design a compiler. • Develop a compiler. • Teach the principles and technics of complier design in a classroom
6.	CU06	Introduction to Robotics	Samiran Mandal	04/05/2020	08/05/2020	1	Faculty of Mechanical and allied disciplines	After attending the programme, the participants will be able to • describe the construction of industrial robots • explain the applications of industrial robots • explain kinematics of industrial robots • assess the economic justification of robot
7.	CU07	Refresher course on Analog & Digital Electronics	Soumitra Kumar Mandal	04/05/2020	15/05/2020	2	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	After attending the programme, the participants will be able to • Study the operations and characteristics of Analog & Digital devices • Design amplifiers and oscillator circuits using Analog devices • Implement digital electronics circuits in CPLD using VHDL and Verilog
8.	CU08	Civil Engineering Laboratory Practice (Brick, Cement, Aggregates, Concrete including demonstration of NTD and SDT)	Uday Chand Kumar	11/05/2020	15/05/2020	1	Faculty/Instructor/Technician of Civil, Architecture & allied disciplines	After attending the programme the participants will be able to • Explain basic concepts on laboratory tests of brick, cement, aggregate • Guide students in conducting different laboratory experiments relate to building construction for determination of various parameters • Demonstrate different tests on building materials • Familiar with the use of NDT and SDT equipment

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
9.	CU09	Medical Electronics	Subrata Chattopadhyay	11/05/2020	15/05/2020	1	Faculty of Electrical, Instrumentation, Electronics & 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
10.	CU10	Fluid Power	Dipankar Bose	11/05/2020	15/05/2020	1	Faculty of Mechanical and allied disciplines	After attending the programme the participants will be able to • State principle of fluid power • Describe various elements of fluid power systems • Explain control components of fluid power systems • Illustrate application of fluid power
11.	CU11	Testing & Purification of Drinking Water and Health	Sailendra Nath Mandal	11/05/2020	22/05/2020	2	Faculty and Staff of all disciplines	After attending the programme the participants will be able to acquire – • knowledge of basic concept of drinking water, sampling, preservation, analysis, interpretation of result, national and international standards, Common water pollutants – analysis and impacts on health, • 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 water analysis/treatment laboratory, • attitude of hand-on working in the laboratory/field (Plant Visit)
12.	CU12	Electricity Act, Rules & Code of Practices	Prasanta Sarkar	18/05/2020	22/05/2020	1	Faculty of Electrical, Instrumentation, 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.
13.	CU13	Laboratory and Field Testing of Soil and Preparation of Soil Investigation Report	Jagat Jyoti Mandal	18/05/2020	29/05/2020	2	Faculty of Civil, Architecture & allied disciplines	After attending the programme the participants will be able to • Explain basic concepts of soil investigation and testing • Guide students in conducting different laboratory experiments related to determination of related parameters • Demonstrate and conduct different laboratory and insitu tests on soil for determination of strength and compressibility parameter of soil • Prepare report for typical exploration programme
14.	CU14	Networking Principles, Management and Administration	Rajeev Chatterjee	18/05/2020	29/05/2020	2	Faculty of CSE / IT / ECE/ EE /Computer Application disciplines	After going through this program the participants will be able to: • explain the various topologies and media of computer Network • explain a network and Internetwork, • explain the various protocols in TCP/IP suite, • explain the concept of switching and routing, • demonstrate the basic techniques of network management, • explain the concept of basic network security, and • explain Software Defined Network
15.	CU15	Laboratory Practice on Building Materials & NDT	Mithu Dey	01/06/2020	05/06/2020	1	Faculty & Technician of Civil, Architecture & allied disciplines	After attending the program, participants are expected to be able to • Explain the physical significance of laboratory tests on Concrete Materials. • Demonstrate to the students on different tests of Concrete Materials • Understand the concrete mix design • Familier with NDT test

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
16.	CU16	Database Design Theory and Practice	Ranjan Dasgupta	01/06/2020	05/06/2020	1	Faculty of CSE / IT / ECE/ EE /Computer Application disciplines	After attending the course the participants will be able to • get exposure in database design theory • design and develop small database application
17.	CU17	Waste Analysis and Management	Sailendra Nath Mandal	01/06/2020	12/06/2020	2	Faculty and Staff of all disciplines	After attending the programme the participants will be able to acquire – • knowledge of basic concept of solid waste, wastewater, sampling, preservation, analysis, standards, interpretation of result and disposal of wastewater, Solid waste, impact on human health , • 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 solid waste, wastewater analysis/ treatment laboratory, • attitude of hand-on working in the laboratory/field (Plant Visit)
18.	CU18	LABVIEW & MATLAB Applications in Electrical & Electronics Engineering	Soumitra Kumar Mandal	01/06/2020	12/06/2020	2	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	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
19.	CU19	Operation and Programming in CNC Machines	Nirmal Kumar Mandal	01/06/2020	12/06/2020	2	Faculty / Technician of Mechanical and allied disciplines	After attending the programme the participants will be able to • Explain CNC Technology. • Develop programs in CNC Lathe • Operate CNC Lathe
20.	CU20	Programming and Automation using PLC	Sagarika Pal & Subrata Chattopadhyay	08/06/2020	12/06/2020	1	Faculty / Technician 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
21.	CU21	IP Networking	Rajeev Chatterjee	08/06/2020	19/06/2020	2	Faculty of CSE / IT / ECE/ EE /Computer Application disciplines	After going through this program the participants will be able to: • explain the concept of networking and internetworking, • explain the working of Internet, • explain the role of RIR and other regulatory bodies, • explain the various protocols in Routing, Switching, • design campus wide network, • configure switches and routers, • explain the concept and working principles of firewall, • explain the various technologies related to Wi. Fi. networks, • explain the working of Mobile IP networks, and • explain the concept of identity management & access management
22.	CU22	Theory & Practice –Turning, Milling and Drilling	Dipankar Bose & Samiran Mandal	08/06/2020	12/06/2020	1	Faculty / Technician of Mechanical and allied disciplines	After attending the course the participants will be able to • State principles of turning, milling, drilling operations • Perform turning, milling, drilling operations in the workshop independently • Able to develop worksheets for practice
23.	CU23	Artificial Intelligence	Samir Roy	15/06/2020	19/06/2020	1	Faculty of CSE, IT, BCA, MCA	After successful completion of the programme the participants will be able to • Explain Artificial Intelligence in classroom • Design intelligent software. • Develop intelligent software.

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
24.	CU24	Modeling and Analysis of Linear Control Systems	Urmila Kar	15/06/2020	19/06/2020	1	Faculty of Electrical, Electronics and allied disciplines	After attending this programme participants will be able to • explain fundamentals of control systems • explain the need for control system analysis • develop mathematical representation of linear control systems • identify approaches for linear control system analysis • select techniques for analyzing stability of linear control systems • simulate models for analysis of linear control systems using MATLAB programming / SIMULINK • use MATLAB control system tool box for designing experiments on linear control system
25.	CU25	Philosophy of RCC Design as per IS: 456-2000	Santanu Bhanja	22/06/2020	26/06/2020	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 major design and detailing considerations • Identify the limitations of the code • Apply a standard software for designing structures • Participants will be awarded a complete unlimited licenced version of STAAD.Pro Connect with STAAD.Pro Advanced Concrete Design Solution for personal use on their PC's for full one year for academic purpose
26.	CU26	Renewable Energy Sources and Emerging Technologies	Sheela Yadav Rai	22/06/2020	26/06/2020	1	Faculty of all 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
27.	CU27	Laboratory Testing on Soil and Preparation of Report	Uday Chand Kumar and Jagat Jyoti Mandal	22/06/2020	26/06/2020	1	Faculty and Technician of Civil, Architecture and allied disciplines	After attending the programme the participants will be able to • Explain basic concepts on laboratory tests of soil as per requirement of Civil engineering Diploma curriculum • Guide students in conducting different laboratory experiments related to determination of related parameters • Demonstrate different tests on soil for determination of strength and compressibility parameter of soil

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
28.	CU28	Probability and Statistics	Chandan Chakraborty	22/06/2020	03/07/2020	2	Faculty of Engineering & Science and allied disciplines	• At the end of this course the participants will be able to • Develop in-depth understanding of concept of probability and probability theory for uncertainty analysis in decision making, • Explore various standard Probability distributions with its applications, • Demonstrate descriptive statistics for data visualization and analysis, • Analyse the multivariate data using Correlation and Regression analysis for problem solving, • Explain an overview of Inferential Statistics and related issues in class room teaching, • Explain the various statistical tables for decision making, • Explore their applications in Engineering problems specially in AI/ML/Data Science etc.
29.	CU29	Data Structures	Samir Roy	29/06/2020	03/07/2020	1	Faculty of CSE, IT, BCA, MCA ECE, EE, ME, Civil disciplines	On successful completion of the programme the participants will be able to • Design data structures for a given computational problems. • Develop a data structure in a programme. • Explain data structures in classroom.
30.	CU30	Application of MATLAB in Engineering	Prasanta Sarkar	29/06/2020	03/07/2020	1	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	After attending the programme, the participants will be able to • 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 problem
31.	CU31	Three Dimensional Modelling with AUTOCAD and SOLIWORKS	Nirmal Kumar Mandal	29/06/2020	10/07/2020	2	Faculty of all disciplines	After attending the programme the participants will be able to • Use various drafting and editing tools • Model 3D parts using AUTOCAD and SOLIWORKS
32.	CU32	Theory, Operation and Experimentation on Sensors, Transducers & Actuators	Sagarika Pal & Subrata Chattopadhyay	06/07/2020	10/07/2020	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 Intrinsic safety instruments • Apply transducers and actuators in process Control Systems
33.	CU33	Power Generation from Energy Resources	Sheela Yadav Rai	06/07/2020	10/07/2020	1	Faculty of all disciplines	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
34.	CU34	Automobile Engineering	Samiran Mandal	06/07/2020	10/07/2020	1	Faculty of Mechanical and allied disciplines	After attending the course the participants will be able to • classify the Automobiles • describe the construction of Automobiles • explain the principle of working of different subsystems of Automobiles.
35.	CU35	Big Data Analytics	Chandan Chakraborty & Kinsuk Giri	06/07/2020	10/07/2020	1	Faculty of Engineering Disciplines, BCA, MCA etc.	On completion of the course, the participants would be able to • Get acquainted with an overview of Big Data and its Applications • Explore statistical methods for analysing big data • Demonstrate **Machine Learning (Classification and Clustering)** and Data Mining algorithms • Get an exposure on **Python Programming** Language • Demonstrate Data Mining with Python (Hands-on-training) • Explore **R programming for Big Data Visualization & ML** • Get an exposure to project based learning in this domain.

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
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36.	CU36	Engineering Thermodynamics and its Applications	Rayapati Subbarao	13/07/2020	17/07/2020	1	Faculty of Mechanical & allied disciplines	At the end of the programme, the participants will be to: • paraphrase the basics of thermodynamics. • apply laws of thermodynamics in various problems. • appreciate more about entropy and the processes of perfect gases. • identify and analyze thermodynamic air cycles. • familiarize the basics of fuels and combustion.
37.	CU37	Pattern Recognition: Theory and Applications	Chandan Chakraborty	20/07/2020	24/07/2020	1	Faculty of Engineering, BCA, MCA disciplines	After completion of this course the participants will be able to • Understand the overview of pattern recognition system with examples • Explain feature space, feature selection and dimensionality reduction • Demonstrate supervised pattern classification (Bayesian, SVM, FLDA etc.) methods and its applications in class room teaching / practicing • Explain unsupervised pattern classification tools (Clustering) • Design relevant projects for hands on experience towards problem solving
38.	CU38	Workshop Practice in Mechanical Engineering	Arpan Kumar Mondal	20/07/2020	31/07/2020	2	Faculty & Technical Staff of Mechanical & 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.
39.	CU39	Design and Detailing of Reinforced Concrete Structural Elements	Jagat Jyoti Mandal	27/07/2020	07/08/2020	2	Faculty of Civil, Architecture & allied disciplines	After attending the programme the participants will be able to • Design different reinforced structural elements, such as • Beam * Slab • Columns * Isolated footings, combined footing • Teach the related topics in more efficient manner
40.	CU40	Problem Solving with SCILAB	Kinsuk Giri	27/07/2020	07/08/2020	2	Faculty of all disciplines	On successful completion of the programme the participants will be able to • understand and explain the different aspects of SCILAB • apply SCILAB to solve for mathematical, statistical and optimization problems • use SCILAB for graphics and visualization
41.	CU41	Software Engineering: Theory and Practice	Ranjan Dasgupta	27/07/2020	07/08/2020	2	Faculty of CSE / IT / ECE/ EE /Computer Application disciplines	After attending the course the participants will be able to • get exposure in various issues related to software engineering • get exposure in application development process • design small application
42.	CU42	Fundamental and Applications of Nanomaterials	Subrata Mondal	27/07/2020	07/08/2020	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.
43.	CU43	Programming and Applications using LABVIEW	Sagarika Pal	03/08/2020	07/08/2020	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After completing the course the participant will be able to • Explain fundamentals of LABVIEW • Use graphical programming language • Apply LABVIEW in various analog and digital systems • Illustrate applications of LABVIEW in DAS
44.	CU44	Multimedia Tools and It's Applications	Indrajit Saha	03/08/2020	14/08/2020	2	Faculty of all disciplines	• After attending the program, the participants will be able to • describe the multimedia components • get exposure in various multimedia related software • prepare a small computer based training material
45.	CU45	Automated Manufacturing Systems	Nirmal Kumar Mandal	10/08/2020	14/08/2020	1	Faculty of Mechanical and allied disciplines	After attending the programme the participants will be able to • Explain Automation • Analyse the performance of Automated Manufacturing System

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
46.	CU46	Data Science with R programming	Chandan Chakraborty	10/08/2020	21/08/2020	2	Faculty of Engineering, BCA, MCA disciplines	After attending the course, the participants would 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. • Develop an ability to do regression, correlation and knowledge discovery of the data. • Get an exposure on basics of R statistical Programming. • 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.
47.	CU47	Basics of Computer, IT and ITes for Faculty and Staff	Arpan Kumar Mondal	10/08/2020	21/08/2020	2	Faculty of all disciplines	After attending the programme the participants will be able to • Understanding the computer hardware • Know about basic computer applications and operating systems used in engineering education and office management. • Practice session on MS Word, Power Point, Excel, specialized graph plotting software, Open office. • Have exposure on handling various operating systems. • Have an exposure on various OS and applications. * Candidates have to bring their own laptop with latest OS and MS Office installed.
48.	CU48	Estimating & Costing of Non-Conventional Energies	Sheela Yadav Rai	17/08/2020	21/08/2020	1	Faculty of all disciplines	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
49.	CU49	Introduction to Optical Fibre and Its Application	Subrata Chattopadhyay	17/08/2020	21/08/2020	1	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	After attending the programme, the participants will be able to; • Acquire knowledge in optical fibre and it's characteristics • Use of optical fibre as analog link • Application of optical fibre in voice communication • Study of signal transmission by optical fibre using different modes of communication • Discuss merits and demerits of optical fibre • Utility of optical fibre in modern technology • Perform various experiments of communication with optical fibre
50.	CU50	Product Design	Samiran Mandal	17/08/2020	21/08/2020	1	Faculty of Mechanical and allied disciplines	After attending the programme, the participants will be able to • identify customer needs • establish product function • carry out product teardown and benchmarking • generate and select concepts • perform concept embodiment • design for X • develop analytical, numerical and physical models

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
51.	CU51	Repair and Rehabilitation of RCC Structures with special emphasis on Earthquakes	Santanu Bhanja	24/08/2020	28/08/2020	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to • Be acquainted with causes of deterioration of RCC structures • Know the importance of non-destructive and semi-destructive testing • Understand repair, rehabilitation and retrofitting measures • Be exposed to hands –on demonstration of various Instruments • Know the methods of Repair and Rehabilitation • Appreciate the effect of earthquake on structures with an introduction to Shake Table testing
52.	CU52	Design and Analysis of Algorithms	Samir Roy	24/08/2020	28/08/2020	1	Faculty of CSE, IT, BCA, MCA ECE, EE, ME, Civil disciplines	After successful completion the course the participant will be able to • Design an algorithm for a given problem. • Analyse a given algorithm. • Explain an algorithm in classroom.
53.	CU53	Computational Techniques for Mechanical Engineers	Rayapati Subbarao	24/08/2020	28/08/2020	1	Faculty of Mechanical & allied disciplines	At the end of the programme, the participants will be to: • Identify the purpose of Computational Techniques • Understand and write applicable programs in C. • Appreciate tools like MS Excel and Origin. • Gain exposure to various software packages to solve problems in Mechanical Engineering.
54.	CU54	Data Analysis using MATLAB	Indrajit Saha	31/08/2020	04/09/2020	1	Faculty of Engineering, MCA & BCA disciplines,	After attending the program, the participants will be able to • analyze the data using various statistical methods • visualize the data for better understanding • develop prediction model for real-life data driven problems
55.	CU55	Polymer Composites and Nanocomposites	Subrata Mondal	31/08/2020	04/09/2020	1	Faculty of Chemical, Mechanical, Science, Textiles, Materials, Polymer and allied disciplines	After attending this program, participants would be able to: • explain the fundamental concept of nanotechnology; • differentiate the microfillers and nanofillers; • explore the fundamental of polymeric composites and nanocomposites; • describe the properties of polymeric composites and nanocomposites; • explain the applications of polymeric composites and nanocomposites etc.
56.	CU56	Advanced Welding Processes and Physics of Welding	Arpan Kumar Mondal	31/08/2020	11/09/2020	2	Faculty of Chemical, Mechanical, Science, Textiles, Materials, Polymer 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. • Understand the physics of welding
57.	CU57	Advanced Process Control using PLC, DCS and SCADA	Sagarika Pal & Subrata Chattopadhyay	07/09/2020	11/09/2020	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. • Apply the control system in distillation column in industry • Utilize the electrical instruments in hazardous area in process plant • Develop programme on PLC and DCS for process automation • Explain SCADA systems for various process control systems
58.	CU58	Power Plant Engineering	Rayapati Subbarao	07/09/2020	11/09/2020	1	Faculty of Mechanical & allied disciplines	At the end of the programme, the participants will be to: • paraphrase the basics of power plants. • recognise different types of power plants. • appreciate the need and importance of fuels in power section. • identify the necessity of newer fuels in transportation.

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
59.	CU59	Analysis and Design of Structures by Limit State Method using Software.	Mithu Dey	07/09/2020	11/09/2020	1	Faculty of Civil, Architecture & allied disciplines	• 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.
60.	CU60	Testing and Health Benefits of Drinking Water	Sailendra Nath Mandal	07/09/2020	18/09/2020	2	Faculty and Staff of all disciplines	After attending the programme the participants will be able to acquire – • knowledge of different drinking water testing parameters, equipment, methods of testing , different standards and impact on human health, • skill of handling 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, • attitude of hand-on working in the laboratory/field (Plant Visit)
61.	CU61	Applied Machine Learning	Chandan Chakraborty	07/09/2020	18/09/2020	2	Faculty of Engineering, BCA, MCA 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 and recent trends of Engineering applications • Account for why it is important to have informative data and features for the success of machine learning systems, • Explain different supervised and unsupervised machine learning models. • Develop an understanding of performance evaluation methods of machine learning algorithms and systems, • Develop machine learning projects in various application areas and project based learning.
62.	CU62	Mathematics with Engineering applications and Graphical Interpretations	Nirmal Kumar Mandal	14/09/2020	18/09/2020	1	Faculty of all disciplines	After attending the programme the participants will be able to • Model a physical system using statistical data • Visualise the mathematical model
63.	CU63	Exposure in Optimization	Kinsuk Giri	14/09/2020	18/09/2020	1	Faculty of all disciplines	On successful completion of the programme the participants will be able to • understand various types of optimization problems • apply optimization techniques in different fields • solve some basic problems using tools
64.	CU64	Image Processing using MATLAB	Indrajit Saha	14/09/2020	25/09/2020	2	Faculty of Engineering, MCA & BCA Disciplines	After attending the program, the participants will be able to • describe the fundamentals of image processing (IP) • apply MATLAB commands to do IP • explain image processing in classroom
65.	CU65	Basics of Welding Processes and CNC Machining	Arpan Kumar Mondal	21/09/2020	25/09/2020	1	Faculty of Mechanical & allied disciplines	After attending the programme the participants will be able to • Explain the principles of welding processes. • Perform independently various welding processes. • Understand the fundamentals of CNC programming. • Understand the basics of CNC machining simulation • Perform independently various CNC machining operations
66.	CU66	Refresher course on Microprocessors and Microcontrollers	Soumitra Kumar Mandal	21/09/2020	02/10/2020	2	Faculty / Technician of Electrical, Instrumentation, Electronics & allied disciplines	After attending the programme, the participants will be able to • Describe Architecture and programming of 8085, 8086 Microprocessors & 8051 Microcontroller • Design interfacing circuits for Microprocessor & Microcontroller based systems • Develop Microprocessor & Microcontroller based projects • Write assembly language programs

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				From	To			
67.	CU67	Engineering Metrology	Dipankar Bose	05/10/2020	09/10/2020	1	Faculty of Mechanical and allied disciplines	After attending the programme the participants will be able to • Define different terms of metrology • State various measuring techniques • Know manipulative technique of measurement
68.	CU68	Modelling, Analysis and Design of Buildings with ETABS	Santanu Bhanja	12/10/2020	16/10/2020	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 of 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 • Analyze, Design and Detail real life multi-storeyed buildings
69.	CU69	Control Engineering with MATLAB	Prasanta Sarkar	12/10/2020	16/10/2020	1	Faculty of Electrical, Instrumentation, Electronics & allied 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
70.	CU70	Solar PV System: Operation and Control	Soumitra Kumar Mandal	12/10/2020	16/10/2020	1	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	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
71.	CU71	Design of Earthquake Resistant RC Buildings with an Introduction to Shake Table	Santanu Bhanja	02/11/2020	06/11/2020	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to • Understand the modifications suggested as per the revised (2016) Standards – IS: 1893 Part 1 and IS :13920 • Appreciate the underlying principles of earthquake resistant design of R.C. buildings • Differentiate between Static and Dynamic analysis and know the domain of their application • Design RC elements for earthquake resistance and investigate their behaviour up to the failure levels • Appreciate the effect of earthquake on structures with an introduction to Shake Table testing • Apply software for analysis & design of seismic resistant structures • Participants will be awarded a complete unlimited licenced version of STAAD.Pro Connect with STAAD.Pro Advanced Concrete Design Solution for personal use on their PC's for full one year for academic purpose
72.	CU72	Mechanical Measurements and Control	Samiran Mandal	02/11/2020	06/11/2020	1	Faculty of Mechanical and allied disciplines	After attending the programme, the participants will be able to • explain the principles of measurement of physical quantities in mechanical engineering applications • explain the basic principles of control system.

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73.	CU73	Testing of Drinking Water and Ambient Air	Sailendra Nath Mandal	02/11/2020	13/11/2020	2	Faculty and Staff of all disciplines	After attending the programme the participants will be able to acquire – • knowledge of different parameter of drinking water, ambient air testing equipment, methods of testing , different standards and impact on human health, • skill of handling different 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, air pollution testing laboratory, • attitude of hand-on working in the laboratory/field (Plant Visit)
74.	CU74	Design of Payroll Systems using ORACLE	Ranjan Dasgupta	02/11/2020	13/11/2020	2	Faculty of CSE / IT / ECE/ EE /Computer Application disciplines	After attending the course the participants will be able to • get exposure in various process of Payroll Systems • get exposure in designing the processes using Software Engineering approach • design & develop the system
75.	CU75	Selection, Analysis and Design of Shallow Foundations	Jagat Jyoti Mandal	09/11/2020	20/11/2020	2	Faculty of Civil, Architecture & allied disciplines	After attending the programme the participants will be able to • Select foundation type for a soil strata based on settlement and bearing capacity analysis • Design different types of shallow foundations • Isolated, • combined footing and • raft foundation and • Teach the related topics in more efficient manner
76.	CU76	Introduction to PYTHON Programming	Kinsuk Giri	16/11/2020	20/11/2020	1	Faculty of all disciplines	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
77.	CU77	Laboratory Instructions in Electrical Machine & Power System Lab	Soumitra Kumar Mandal	16/11/2020	20/11/2020	1	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	After attending the programme, the participants will be able to • Choose experiments form the detailed curriculum • Perform the experiments • Record & analyze the experimental data • Write the instruction manual for students • Evaluate the laboratory performance of students
78.	CU78	Mathematics with Engineering applications and Graphical Interpretations	Nirmal Kumar Mandal	16/11/2020	20/11/2020	1	Faculty of all disciplines	After attending the programme the participants will be able to • Model a physical system using statistical data • Visualise the mathematical model
79.	CU79	Design of Steel Structure	Uday Chand Kumar & Mithu Dey	23/11/2020	27/11/2020	1	Faculty of Civil, Architecture and allied disciplines	After attending the programme the participants will be able to • Understand principles on plastic analysis of steel structures • Design the different structural elements by limit state method • Familiar with the new code IS 800: 2007
80.	CU80	Modeling and Analysis of Nonlinear Control Systems	Urmila Kar	23/11/2020	27/11/2020	1	Faculty of Electrical, Electronics and allied disciplines	After attending this programme, the participants will be able to • explain fundamentals nonlinear control systems • explain the need for analysis of nonlinear control systems • explain types of commonly available nonlinearities and their representation • identify approaches for analysis of nonlinear control systems • select techniques for analyzing stability of nonlinear control systems • simulate models for analysis of nonlinear control systems using MATLAB programming / SIMULINK • use MATLAB control system tool box for designing experiments on nonlinear control systems

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				From	To			
81.	CU81	Network Infrastructure and Cloud Security	Rajeev Chatterjee & Ranjan Dasgupta	30/11/2020	04/12/2020	1	Faculty of CSE / IT / ECE/ EE /Computer Application disciplines	After going through this program the participants will be able to: • explain the network security • management of assets, vulnerability and threats • demonstrate the identity and access management application and techniques. • explain the structure and application of cloud computing • explain the importance of cloud security.
82.	CU82	Non-conventional Machining Processes	Dipankar Bose	30/11/2020	04/12/2020	1	Faculty of Mechanical and allied disciplines	After attending the course the participants will be able to • Explain the utility of non-conventional machining processes • State working principles of different non-conventional machining processes • Explain working principle of hybrid machines • Practice on non-conventional machining process
83.	CU83	Application of LABVIEW in Industrial Automation	Sagarika Pal & Subrata Chattopadhyay	30/11/2020	11/12/2020	2	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After completing the course the participant will be able to • Explain fundamentals of LABVIEW • Use graphical programming language • Apply LABVIEW in various analog and digital systems • Illustrate applications of LABVIEW in DAS • Design controller using LABVIEW • Implement automation system using LABVIEW
84.	CU84	Power Electronics in Power System	Soumitra Kumar Mandal	07/12/2020	11/12/2020	1	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	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
85.	CU85	Application of AutoCAD in Engineering & basic sciences	Mithu Dey	07/12/2020	11/12/2020	1	Faculty 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 Field
86.	CU86	Testing of Bottled Water and Health	Sailendra Nath Mandal	14/12/2020	18/12/2020	1	Faculty and Staff of all disciplines	After attending the programme the participants will be able to acquire • knowledge of bottled water, different bottled water testing parameters, equipment, methods of testing, different standards and impact on human health, • skill of handling 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 bottled water testing laboratory, • attitude of hand-on working in the laboratory/field (Plant Visit)
87.	CU87	Advanced Materials Science and Engineering	Subrata Mondal	14/12/2020	18/12/2020	1	Faculty of Chemical, Mechanical, Science, Textiles, Materials, Polymer 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.
88.	CU88	Hydraulics and Pnumatics	Dipankar Bose	14/12/2020	18/12/2020	1	Faculty and Technician of Mechanical & allied disciplines	After attending the programme, the participants will be able to • know principle of hydraulics and pneumatics and their applications • describe various elements of fluid powered systems (hydraulics and pneumatics) • design and development of hydraulic and pneumatic circuits

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
89.	CU89	Circuit Simulation using PSpice	Sagarika Pal	14/12/2020	18/12/2020	1	Faculty / Technician in EE, Electronics and allied discipline	After attending the programme the participants will be able to • Simulate and analyze the circuit • Calculate the node voltage and branch current in a circuit • Generate the waveform plot for further analysis • Model the behavior of the circuit
90.	CU90	Application of Total Station with Introduction to DGPS in present day Surveying	Santanu Bhanja	28/12/2020	01/01/2021	1	Faculty / Technician of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to • Be introduced to Total Station • Understand the processes involved in operating Total Station • Carry out different types of Surveying using Total Station • Assimilate and store data from site and plot the same • Be introduced to DGPS
91.	CU91	Lab Experiment in Power Electronics and Drive	Soumitra Kumar Mandal	28/12/2020	01/01/2021	1	Faculty / Technician in EE, Electronics and allied discipline	After attending the programme, the participants will be able to • Study performance characteristics of Power Electronics Devices • Design & implement Power Electronics Circuits. • Describe the operation and control of Electrical Drives
92.	CU92	Optimization with MATLAB Applications	Nirmal Kumar Mandal	28/12/2020	08/01/2021	2	Faculty of 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
93.	CU93	Formal Languages and Automata	Samir Roy	04/01/2021	08/01/2021	1	Faculty of CSE, IT, BCA, MCA ECE, EE, ME, Civil 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
94.	CU94	Concept Teaching in Fluid Mechanics	Dipankar Bose	04/01/2021	08/01/2021	1	Faculty of Mechanical and allied disciplines	After attending the programme, the participants will be able to • Understand the idea of concept teaching • Identify the major concepts in fluid statics • Identify the major concepts in fluid dynamics • Work out a strategy for teaching fluid mechanics
95.	CU95	Testing of Pavement Materials, Analysis and Design of Flexible Pavements	Jagat Jyoti Mandal	04/01/2021	15/01/2021	2	Faculty of Civil, Architecture & allied disciplines	After attending the programme the participants will be able to • Explain basic concepts on tests of different material required for construction of Subgrade, Base, Sub base and bituminous layer of pavements • Guide students in conducting different tests on pavement material • Design bituminous mixes • Design flexible pavement according to the guideline of IRC 37 - 2018
96.	CU96	Applications of MATLAB in Control System, Image Processing, Fuzzy Logic and Circuit Simulation	Sagarika Pal	04/01/2021	15/01/2021	2	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 • Use SimPower Systems
97.	CU97	Surveying (Chain, Plane Table, Compass, Levelling, Contouring, Layout of Building)	Uday Chand Kumar	11/01/2021	15/01/2021	1	Faculty and Technician of Civil, Architecture & allied disciplines	After attending the programme the participants will be able to • Identify the different instruments required for surveying • Identify the error of survey instruments • Measure distances, bearing and finding reduced levels with survey instruments • Prepare drawing using survey data • Prepare contour map of a given terrain/topography

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				From	To			
98.	CU98	Discrete Mathematics	Kinsuk Giri	11/01/2021	15/01/2021	1	Faculty of Engineering, Mathematics & Physics disciplines	On successful completion of the programme the participants will be able to • understand the fundamentals of discrete mathematics • solve problems in various areas of discrete mathematics • apply tools to solve few discrete math problems
99.	CU99	Power System Protection	Sheela Yadav Rai	11/01/2021	15/01/2021	1	Faculty of Electrical and allied discipline	After attending the programme the participants will be able to : • Describe the structure of Power System • Understand power system protective relays • Know protection of Alternators & Transformers • Understand the various types of protection system of Bus-bars & Lines
100.	CU100	Design of Concrete Mix as per IS:10262-2019	Santanu Bhanja	18/01/2021	22/01/2021	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to • Understand the different concrete properties and how to regulate them • Appreciate the role of materials in concrete • Identify the most desirable method of selection of ingredients for concrete • Know the roles of admixtures in concrete • Implement IS Codal provisions for concrete mix design
101.	CU101	Solar PV System: Operation & Control	Soumitra Kumar Mandal	18/01/2021	22/01/2021	1	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	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
102.	CU102	Production and Operations Management	Samiran Mandal	18/01/2021	22/01/2021	1	Faculty of all disciplines	After attending the program, participants will be able to use techniques related to • linear programming * Forecasting • Waiting line models * Product and process strategies • Location layout and operations layout * MRP • Aggregate planning * Inventory management • Project management * TQM
103.	CU103	Introduction to Soft Computing	Samir Roy & Indrajit Saha	18/01/2021	29/01/2021	2	Faculty of CSE, IT, BCA, MCA ECE, EE, ME, Civil disciplines	After successful completion the program, the participants will be able to • Explain the principles & techniques of soft computing • Apply Soft Computing techniques for complex computational problem • Design intelligent systems applying soft computing techniques
104.	CU104	Theory and Practices on Advanced Welding Processes: TIG, MIG, Pulsed TIG, Medium and Soft Plasma Arc Welding	Arpan Kumar Mondal	25/01/2021	05/02/2021	2	Faculty of Mechanical & 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
105.	CU105	Earthquake Resistant Structures using Software with Advanced Technology	Mithu Dey	01/02/2021	05/02/2021	1	Faculty of Civil, Architecture & allied disciplines	After attending the program, participants are expected to be able to • Understand the eartquke effect on structures. • Know the different methods of analysis using software • Familier with advanced technology to resist the eartquake forces.
106.	CU106	Introduction to Web Designing using PHP and MySQL	Indrajit Saha & Kinsuk Giri	01/02/2021	05/02/2021	1	Faculty of CSE, IT, BCA, MCA ECE, EE, ME, CIVIL and other allied disciplines	After attending the program, the participants will be able to (1) describe the fundamentals of PHP and MySQL (2) design and develop dynamic webpages (3) explain PHP and MySQL in classroom

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
107.	CU107	Transmission Line Parameters	Sheela Yadav Rai	01/02/2021	05/02/2021	1	Faculty of Electrical and allied discipline	After attending the programme the participants will be able to • Understand various transmission lines • Determine ABCD Parameters • Understand Transmission lines T and Pi Models • Calculate regulation, efficiency & power flow
108.	CU108	Refrigeration and Air Conditioning	Rayapati Subbarao	01/02/2021	05/02/2021	1	Mechanical faculty teaching thermal related courses	• Interpret the working principle and features of refrigeration and air conditioning systems. • Recognize different refrigeration cycles and psychrometry processes for air conditioning. • Understand the basics of air conditioning and analyze cooling or heating load calculations. • Gain expertise through practice on refrigeration and air conditioning systems. • Conduct performance tests on reciprocating air compressors and air blowers.
109.	CU109	Modelling, Analysis and Design of structures using latest version of STAAD	Santanu Bhanja	08/02/2021	12/02/2021	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 standard software-STAAD. Pro - latest revised version along with RCDC • Apply IS Codal provisions in analysis, design and detailing - IS 456, 1893, 875, 13920 etc. • Analyze, design and detail real-life multi- storeyed buildings, civil engineering structures • Analyze and design foundations • Participants will be awarded a complete unlimited licenced version of STAAD.Pro Connect with STAAD.Pro Advanced Concrete Design Solution for personal use on their PC's for full one year for academic purpose
110.	CU110	Advanced Welding Processes	Dipankar Bose	08/02/2021	12/02/2021	1	Faculty of Mechanical and allied disciplines	After attending the programme the participants will be able to • State the various types of advanced welding processes • Explain principles of operation of different advanced welding techniques • Practice on various welding operations
111.	CU111	PLC and LABVIEW Applications in Engineering	Soumitra Kumar Mandal	08/02/2021	19/02/2021	2	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	• 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
112.	CU112	Data Science and Machine Learning	Chandan Chakraborty	15/02/2021	19/02/2021	1	Faculty of Engineering, BCA, MCA disciplines	On successful completion of the course the participant will be able to • Develop comprehensive understanding of various distance metrics in deterministic, probabilistic and possibilistic / fuzzy spaces, • Explore application of these distance functions in supervised and unsupervised machine learning. • Apply to solve data science problems.
113.	CU113	MS Project Software Based	Arpan Kumar Mondal & Nirmal Kumar Mandal	15/02/2021	19/02/2021	1	Faculty and Technical staff of all disciplines	After attending the programme, the participants will be able to • Assist project managers in developing plans • Assign resources to tasks, tracking progress, managing budgets Analyse workloads.

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
114.	CU114	Lab Experiment in Electrical Motoros, Electrical Machine and Control	Prasanta Sarkar	15/02/2021	19/02/2021	1	Faculty / Technician in EE, Electronics and allied discipline	After attending the programme, the participants will be able to • Familiar with the different electrical motors, machines and drives in a standard laboratory setup • Develop standard experimental set up in conducting experiment on electrical motors and machine • Perform experiment to determine characteristic of electrical motors, machine and their control.
115.	CU115	Pollution Testing	Sailendra Nath Mandal	22/02/2021	05/03/2021	2	Faculty and Staff of all disciplines	After attending the programme the participants will be able to acquire – • knowledge of testing and maintenance of different water, wastewater, solid waste, noise, air pollution testing equipment, and impact on human health, • skill of handling different 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 water, wastewater, solid waste, air pollution testing laboratory, • attitude of hand-on working in the laboratory/field (Plant Visit)
116.	CU116	Mathematical Foundation of Computer Science	Kinsuk Giri & Samir Roy	22/02/2021	05/03/2021	2	Faculty of Engineering, Mathematics & Physics disciplines	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
117.	CU117	Transmission Lines Faults	Sheela Yadav Rai	01/03/2021	05/03/2021	1	Faculty of Electrical and allied discipline	After attending the programme the participants will be able to : • Describe the structure of Power System • Understand per unit representation of transmission lines • Know unsymmetrical faults • Know symmetrical faults
118.	CU118	Design of Web-applications using DBMS (PHP & MySQL)	Ranjan Dasgupta	01/03/2021	12/03/2021	2	Faculty of all disciplines	After attending the course the participants will be able to • get acquainted with Database Management System • get exposure in database design theory • design and develop database application
119.	CU119	Electrical Measurement and Instrumentation	Subrata Chattopadhyay	08/03/2021	12/03/2021	1	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	After attending the course the participants will be able to • Classification of Measuring Instruments, control, balancing and damping, errors in measurement • Working of Ammeters, voltmeters (DC/AC), Wattmeter, Energy meters. Operation of Instrument Transformers: Potential and current transformers, • Application of DC/AC Bridges: General equations for bridge balance, measurement of self-inductance by Maxwell's bridge Hay's bridge, Owen's bridge, measurement of capacitance by De Sauty bridge, Schearing bridge, errors, Wagner earth device, Kelvin's double bridge. • Classify the Different types of Transducers & Actuators used in Industry • Transducer: Strain Gauges, Thermistors, Thermocouples, Linear Variable Differential Transformer (LVDT), Capacitive Transducers, Peizo-Electric transducers, Optical Transducer, Torque meters, inductive torque transducers, electric tachometers, photo-electric tachometers, Hall Effect Transducer • Understand fundamental of pressure, flow, temperature, level, velocity, acceleration, vibration, position, displacement measuring transducers used in process industries.

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
120.	CU120	Applied Thermodynamics	Rayapati Subbarao	08/03/2021	12/03/2021	1	Faculty of Mechanical & allied disciplines	At the end of the programme, the participants will be to: • interpret the working principle and features of steam engines, turbines and condensers. • explain the basics of I.C. Engines and analyze the performance • identify the functions of gas turbines and power plants.
121.	CU121	Modeling and Analysis of Electrical Circuits and Networks	Urmila Kar	15/03/2021	19/03/2021	1	Faculty of Electrical, Electronics and allied disciplines	After attending this programme, the participants will be able to • explain the need for circuit and network analysis • illustrate the techniques of circuit and network analysis • identify the mathematical tools for circuit and network analysis • develop models for analysis using suitable software (Pspice and MATLAB)
122.	CU122	Testing of Pavement Materials	Mithu Dey	22.03.2021	26.03.2021	1	Faculty and Technician of Civil and allied disciplines	After attending the program, participants are expected to be able to • Explain the physical significance of laboratory tests on pavements Materials. • Demonstrate to the students on different tests of pavement Materials • Understand the Marshal stability test.
123.	CU123	Introduction of Machine Learning and Internet of Things	Indrajit Saha & Chandan Chakraborty	22/03/2021	26/03/2021	1	Faculty of CSE, IT, BCA, MCA ECE, EE, ME, CIVIL and other allied disciplines	On successful completion of the course the participant will be able to (1) describe the fundamentals of Machine Learning (ML) and Internet of Things (IoT) (2) apply supervised and unsupervised learning techniques (3) explain and demonstrate the integration of ML with IoT
124.	CU124	HPC and Cloud Computing	Ranjan Dasgupta & Kinsuk Giri	22/03/2021	26/03/2021	1	Faculty of CSE / IT / ECE/ EE /Computer Application disciplines	After attending the course the participants will be able to • get exposure in different hardware components of modern computer • get exposure in the limitation of modern computer in context of high performance • get exposure in HPC and Cloud Computing
125.	CU125	PCB Design	Soumitra Kumar Mandal	22/03/2021	26/03/2021	1	Faculty / Technician in EE, Electronics and allied discipline	After attending the programme, the participants will be able to Explain the concept of PCB Design Different components of PCB Design PCB Design flow chart Application of tools in PCB Design
126.	CU126	Finite Element Analysis with Ansys Applications	Nirmal Kumar Mandal	22/03/2021	26/03/2021	1	Faculty of Mechanical and allied disciplines	After attending the programme the participants will be able to • Explain a mechanical system. • Use of software packages to analyse mechanical system.

II. MANAGEMENT (MGT)

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
1.	MGT01	Research Methodology and Intellectual Property Right (IPR)	Chandan Chakraborty	13/04/2020	24/04/2020	2	Faculty of Engineering & Science, Allied disciplines	After completion of this course the participants will be competent enough to • Develop understanding of the basic framework of research process, • Develop an understanding of various research designs and techniques, • Identify various sources of information for literature review and data collection, • Explore ethical issues specially in applied research, • Demonstrate the basic Statistical methods for scientific validation of research hypothesis with software, • Prepare a research project thesis report, • Understand the law of patent and copyrights, • Understand the Adequate knowledge on IPR, • Demonstrate in class room teaching with case studies / applications.
2.	MGT02	Laboratory Safety Management	Subrata Mondal	15/06/2020	26/06/2020	2	Faculty of all disciplines	After attending this program, participants would be able to • demonstrate the proper housekeeping in the laboratory area; • explain various personal protective equipment for the laboratory works; • evaluate the risk assessment for the hazardous laboratory works; • identify the emergency equipment for the laboratory work area; • explain the hazardous waste management for the laboratory etc.
3.	MGT03	Leadership & Team Building in Academia	Habiba Hussain	13/07/2020	17/07/2020	1	Faculty of all disciplines	After attending this program, participants would be able to • Identify leadership attributes • Analyse different stages in team building • Build learning team in the class
4.	MGT04	Essentials of Strategic Management	Sukanta Kumar Naskar	20/07/2020	24/07/2020	1	Faculty of all disciplines	After attending the programme the participants will be able to • Explore nature and scope of strategic management • Identify stages in strategic planning • Appreciate the concept of time management with strategic management
5.	MGT05	Essentials of HRM	Sukanta Kumar Naskar	21/09/2020	25/09/2020	1	Faculty of all disciplines	After attending the programme the participants will be able to • Explore the functions of HRM • Analyse the functions of HRM for applying respective organization
6.	MGT06	Research Methodology in Engineering and Technical Writing using LaTeX	Kinsuk Giri & Indrajit Saha	14/12/2020	24/12/2020	2	Faculty of all disciplines	On successful completion of the programme the participants will be able to • get exposure in Research Methodology • describe the fundamentals LaTeX programming • apply LaTeX commands for preparing scientific and non-scientific documents
7.	MGT07	Awareness programme on Occupational Health and Safety	Uday Chand Kumar	08/03/2021	12/03/2021	1	Faculty and Technical Staff of all disciplines	After attending the programme the participants will be able to • Identify occupation related issues in various activities • Develop a comprehensive action plan for safety management • Identify the safety equipment
8.	MGT08	Analytics for Decision Making	Chandan Chakraborty	15/03/2021	19/03/2021	1	Faculty of all disciplines	After successful competition of the course, the participants will be able to • Explore importance, basic concepts and principles of decision making, • Develop understanding of variability in the real world and implications for decision making, • Get acquainted with decision making at the workplace & Workplace Problems, • Explore uncertainty analysis in decision making framework, • Explore data types and data quality with appropriate visualizations, • Apply data analytics to administrative/managerial decisions, especially in educational setting.

III. PROFESSIONAL SKILL DEVELOPMENT (PS)

Sl. No	Prog Code	Programme Title	Programme Co-ordinator (s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
1.	PS01	Outcome Based Accreditation and NBA	Urmila Kar	20/04/2020	24/04/2020	1	Faculty & Technicians of all disciplines	After attending the programme, participants will be able to: • 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 features of Outcome Based Curriculum (OBC) • identify outcome based learning-teaching and assessment processes • explain the process of preparing self-assessment report (SAR) for Accreditation by NBA
2.	PS02	Skill Assessment in Laboratory and Guiding Students' Project	Sagarika Pal	20/04/2020	24/04/2020	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
3.	PS03	HRD through Training and Development	Sukanta Kumar Naskar	27/04/2020	01/05/2020	1	Faculty of all disciplines	After attending the programme the participants will be able to: • Appreciate the importance the importance of training activity for employee development • Identify the steps in conducting training • Identify the parameters of effectiveness of a training • Conduct Training Needs Analysis (TNA)
4.	PS04	Institutional Development	Sukanta Kumar Naskar	11/05/2020	15/05/2020	1	Faculty of all disciplines	After attending the programme, the participants will be able to: • Explore management issues for developing an Institutes • Identify the dimensions of institutional development for Technical Institute • Apply management tools for managing institutional activities
5.	PS05	Problem Based Learning	Arpan Kumar Mondal, Indrajit Saha, Sagarika Pal, Kinsuk Giri	18/05/2020	29/05/2020	2	Faculty of 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
6.	PS06	How to Write Thesis and Research Paper	Rayapati Subbarao	08/06/2020	2/06/2020	1	Faculty of all disciplines	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. • discover the ways of writing a research paper. • Communicate a paper in their area of research.
7.	PS07	Induction Training	Arpan Kumar Mondal, Indrajit Saha, Sagarika Pal, Kinsuk Giri	15/06/2020	26/06/2020	2	Faculty of all disciplines	After attending the course the participants will be able to • Identify the roll of a teacher • Identify Instructional Objectives • Prepare Lesson Plan • Design Instructional Media & Computer Assisted Instruction(CAI) • Assess the learning performance of students

Sl. No	Prog Code	Programme Title	Programme Co-ordinator (s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
8.	PS08	Student Mentorship	Habiba Hussain	22/06/2020	26/06/2020	1	Faculty & Laboratory Instructors of all disciplines	After attending he programme the participant will be able to • Characterise their role as a mentor • Analyse mentoring skills • Classify styles of mentoring
9.	PS09	Development of Laboratory Instruction and Manual	Subrata Mondal	06/07/2020	10/07/2020	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.
10.	PS10	Development of Laboratory Instruction Sheets	Dipankar Bose	13/07/2020	17/07/2020	1	Faculty of all disciplines	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 by conducting hands on practices • Know evaluation techniques
11.	PS11	Engineering Capstone Project	Prasanta Sarkar	13/07/2020	17/07/2020	1	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	After attending the programme, the participants will be able to • Able to form Capstone Project Team • Identify Capstone Project topic • Prepare Capstone Project proposal • Develop Capstone Project • Assess Capstone Project
12.	PS12	Laboratory Experimentation in Engineering Chemistry	Sailendra Nath Mandal	20/07/2020	24/07/2020		Faculty and Staff of all disciplines	After attending the programme the participants will be able to gain and develop • knowledge of 'modern principles of laboratory experimentation' in engineering chemistry, • 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, related to engineering chemistry, • attitude of hands-on-working in the laboratory/field. (Plant Visit)
13.	PS13	Induction Training (Phase I & Phase II)	Urmila Kar	20/07/2020	31/07/2020	2	Faculty members and technicians from all technical institutes, Individual phases can also be attended	Phase I: • 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 Phase II: • After attending the programme, participants will be able to: • Identify quality parameters in institutional development • Illustrate the process of accreditation for technical institutes • Explain Technology Enable Learning (TEL) • explain the need for active learning for 21st century learners • plan instruction for active learning • practice micro-teaching

Sl. No	Prog Code	Programme Title	Programme Co-ordinator (s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
14.	PS14	Writing Research Proposals	Habiba Hussain	03/08/2020	07/08/2020	1	Faculty of all disciplines	After attending he programme the participant will be able to • Categorise the components of research proposal • Distinguish between research proposal & research report • Prepare a research proposal
15.	PS15	Problem Solving and Decision Making	Sukanta Kumar Naskar	17/08/2020	21/08/2020	1	Faculty of all disciplines	After attending the course the participants will be able to: • Explore the steps and steps process of problem-solving and decision making • Apply appropriate conflict management style to resolve it • Identify and apply management tools for solving management problem
16.	PS16	Active Learning under Engineering Education	Urmila Kar	14/09/2020	25/09/2020	2	Faculty & Technicians of all disciplines	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 into engineering curricula
17.	PS17	Office Management (Using Software)	Uday Chand Kumar	21/09/2020	25/09/2020	1	Office and Technical Staff	After attending the programme the participants will be able to • Apply management principles to manage office • Follow purchase procedure • Develop knowledge to prepare salary bills • Develop skill in applying basic office management software
18.	PS18	Teaching Skill Development	Habiba Hussain	05/10/2020	09/10/2020	1	Faculty of all disciplines	After attending he programme the participant will be able to • Classify different teaching skills • Practice teaching in simulated environment • Integrate the skills in teaching in actual classroom
19.	PS19	Creative Problem Solving, Innovation and Meaningful R & D	Chandan Chakraborty	09/11/2020	13/11/2020	1	Faculty of all disciplines	At the end of this course, the participants will be able to • Develop an understanding of creative problem-solving processes, • Innovate the process, services and products etc. in work life, • Build effective teams for R & D, • Understand and apply research methodologies, • Design action research proposal for innovative study as well as grant application for enhancing R&D strength towards institute building, • Develop an understanding of data analytics methods and its context based implementation, • Undertake research to improve the various sub-components of technical education system.
127.	PS20	Community Development Through Technical Institutions	Sheela Yadav Rai	09/11/2020	13/11/2020	1	Faculty of all disciplines	After attending the programme the participants will be able to • explain about the various community Development programme • understand the various Schemes • identify the need • conduct the need Analysis Survey • form self-help group
20.	PS21	Designing Teaching for Experiential Learning	Habiba Hussain	09/11/2020	13/11/2020	1	Faculty of all disciplines	After attending he programme the participant will be able to • Analyse experiential learning cycle • Design activities for experiential learning • Demonstrate learner centred instruction

Sl. No	Prog Code	Programme Title	Programme Co-ordinator (s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
21.	PS22	Introduction of Accreditation Mechanism-NBA Approach	Ranjan Dasgupta & Arpan Kumar Mondal	23/11/2020	27/11/2020	1	Faculty of all disciplines	• This discussion type special awareness course will provide exposure to the faculty and technical staff members of Engineering college and polytechnics for participating in forthcoming NBA accreditation process. This is not a conventional STTP. Participants of the colleges who are keen to apply or already applied for NBA accreditation will be maximum benefitted. The course will include discussion on need and benefit of accreditation, role of different stakeholders, preparation for accreditation, Washington Accord, mechanism followed by NBA.
22.	PS23	Role of Technical Institution in implementing Governmental Scheme e.g. CDTP, PWD, Community College	Uday Chand Kumar	30/11/2020	04/12/2020	1	Faculty of all disciplines	After attending the programme the participants will be able to • Understand the activities of the various scheme. • Aware the role of polytechnic in implementing the various scheme. • Prepare project report. • Prepare action plan of the scheme. • Involve PRI /NGO in implementing the scheme.
23.	PS24	NBA Accreditation	Rayapati Subbarao	07/12/2020	01/12/2020	1	Faculty of all disciplines	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
24.	PS25	Research Methodology	Urmila Kar	07/12/2020	18/12/2020	2	Faculty of all disciplines	After attending the programme, participants will be able to: • explain the basic principles of Scientific and Technical Research • elaborate the basic skills necessary for planning and carrying out research • identify different sources of information and effective utilization of the same. • identify ethical issues involved • formulate scientific and technical arguments from unstructured textual data. • prepare a scientific communication from given material • prepare a critical assessment for summarizing a scientific communication • demonstrate skills in statistical analysis and presentation of data
25.	PS26	Pedagogical Communication	Habiba Hussain	14/12/2020	18/12/2020	1	Faculty & Laboratory Instructors of all disciplines	After attending he programme the participant will be able to • Identify the elements of effective communication • Influence students' learning through better communication • Communicate to build interpersonal relations
26.	PS27	Induction Training	Sukanta Kumar Naskar	28/12/2020	01/01/2021	1	Faculty of all disciplines	• After attending the course the participants will be able to: • Appreciate the phases of curriculum development • Analyse the quality issues of Technical Education • Identify the issues of classroom management • Develop lesson plan
27.	PS28	Entrepreneurship Development	Subrata Mondal	04/01/2021	08/01/2021	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.

Sl. No	Prog Code	Programme Title	Programme Co-ordinator (s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
28.	PS29	Induction Training	Habiba Hussain	04/01/2021	15/01/2021	2	Faculty & Laboratory Instructors of all disciplines	After attending he programme the participant will be able to • Identify professional skills of a teacher • Distinguish the components of LT system • Prepare lesson plan • Assess learning performance
29.	PS30	Research in Technical Education	Chandan Chakraborty	25/01/2021	29/01/2021	1	Faculty of all disciplines	After attending this programme, participants would be able to: • Demonstrate knowledge and understanding of educational research, • Manage research projects in educational settings, • Design, analyse, and evaluate quantitative and qualitative data and evidence, • Design your own piece of research, from initial research question to research design and data collection (sampling techniques), • Design research instruments and select appropriate data analysis techniques, • Explore statistical computing using appropriate software, • Present and report research findings in an appropriate format, • Develop questionnaire and research proposal for impact study of various schemes
30.	PS31	Design and Development of content for e-Learning	Rajeev Chatterjee & Ranjan Dasgupta	01/02/2021	12/02/2021	2	Faculty of all disciplines	After going through this program the participants will be able to: • explain the concept of e-learning, • design the basic requirement of ICT infrastructure for e-learning, • 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 demonstrate the various concept of e-content, LMS, interactive Multimedia Presentation, • develop e-content chunks / learning object in their own subject domain, • design and develop e-content using various standards, tools and technique, and • exhibit and demonstrate the process of e-content creation for MOOCs based e-content.
31.	PS32	Make in India Concept – Role of Start-up and Incubation	Dipankar Bose & Arpan Kumar Mondal	15/03/2021	19/03/2021	1	Faculty and Technical Staff members of Technical Institutions	After attending the programme, the participants will be able to • Know the concept of make in India • Identify the concepts of nurturing creative ideas for Incubation • Understand the idea of starting of a Start –up • State the financing and protection of ideas • Explain management issues of Start–up

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 2020-21. A list of the training programmes to be offered through ICT Mode in 2020-21 is provided below:

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
1.	ICT01	NBA Accreditation and SAR Preparation	Rayapati Subbarao	20/04/2020	24/04/2020	1	Faculty of all disciplines	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
2.	ICT02	Measurement and Control of Industrial Automation	Sagarika Pal & Subrata Chattopadhyay	27/04/2020	01/05/2020	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After attending the course the participant will be able to • Identify different measuring elements • Measure different types of parameters • 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
3.	ICT03	Advanced Welding Processes and Physics of Welding	Arpan Kumar Mondal	11/05/2020	15/05/2020	1	Faculty of Mechanical & allied disciplines	After attending the programme the participants will be able to • Classify various welding processes • Explain the principles of advanced welding processes. • Understand the physics of welding • Analyse the weld induced residual stress and distortion • Evaluate the different types of weld defects • Understand the welding metallurgy
4.	ICT04	Skill Assessment in Laboratory and Workshop	Dipankar Bose	18/05/2020	22/05/2020	1	Faculty of all disciplines	After attending the programme the participants will be able to • State various assessment techniques • Classify various skills involved in laboratory & workshop practices • Know various categories of laboratory experiments • State different skill assessment and evolution techniques
5.	ICT05	Electricity Act, Rules & Code of Practices	Prasanta Sarkar	01/06/2020	05/06/2020	1	Faculty of Electrical, Instrumentation, 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.
6.	ICT06	Instructional Planning	Samiran Mandal	15/06/2020	19/06/2020	1	Faculty of all disciplines	After attending the programme, the participants will be able to • Write instructional objectives • Analyse the content • Prepare unit plan • Prepare lesson plan • Prepare questions for student evaluation
7.	ICT07	Fundamentals of Network Security	Indrajit Saha & Ranjan Dasgupta	29/06/2020	03/07/2020	1	Faculty of Engineering, MCA & BCA Disciplines	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

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
8.	ICT08	Laboratory Safety Management	Subrata Mondal	13/07/2020	17/07/2020	1	Faculty of all disciplines	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.
9.	ICT09	Induction Training	Sagarika Pal & Subrata Chattopadhyay	20/07/2020	24/07/2020	1	Faculty of all disciplines	After completing the course the participants will be able to • Identify the roll of a teacher • Identify Instructional Objectives • Prepare Lesson Plan • Design Instructional Media & Computer Assisted Instruction(CAI) • Assess the learning performance of students
10.	ICT10	Development of Laboratory and Workshop Instructions	Nirmal Kumar Mandal	27/07/2020	31/07/2020	1	Faculty of allied disciplines	After attending the programme the participants will be able to • Acquire Different types of employable skills. • Assess the performance of learner.
11.	ICT11	Environmental Consciousness	Sailendra Nath Mandal	03/08/2020	07/08/2020	1	Faculty and Staff of any disciplines	After attending the programme the participants will be able to acquire – • knowledge of basic concept of Environmental Consciousness, different parameter, standards of Water, Air, Noise and impact of each parameter on human health, teachers' occupational health, green sustainable campus etc. • 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, air, noise analysis equipment.
12.	ICT12	Professional Values, Ethics and Sustainability Development	Mithu Dey	10/08/2020	14/08/2020	1	Faculty 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
13.	ICT13	Designing Teaching under Outcome Based Education	Urmila Kar	17/08/2020	21/08/2020	1	Faculty & Technicians of all disciplines	After attending the programme, participants will be able to: • analyze features of Outcome Based Education(OBE) • identify learning-teaching system for OBE • identify teaching skill components • select appropriate teaching strategies for OBE • select appropriate teaching techniques for OBE • prepare plan for specific instruction • illustrate instructional delivery as per plan
14.	ICT14	Fundamental Concepts of Geotechnical Engineering	Jagat Jyoti Mandal	24/08/2020	28/08/2020	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme the participants will be able to • Explain basic concepts of Geotechnical Engineering and its applicability in Civil engineering • Apply these concepts to solve practical problems • Impart acquired knowledge to students in a systematic manner
15.	ICT15	Fundamentals of OBE	Habiba Hussain	31/08/2020	04/09/2020	1	Faculty of all disciplines	After attending he programme the participant will be able to • Distinguish between OBE & traditional education • Determine the paradigm shift in LT system • Align learning experiences, assessment with outcomes

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
16.	ICT16	An Introductory course on Ecology and Environmental Studies	Uday Chand Kumar	14/09/2020	18/09/2020	1	Faculty and Teaching supporting staff of all disciplines	After attending the programme the participants will be able to • Describe the ecological system • Understand the biodiversity • Describe the different causes of air, water and soil pollution and effect of pollution • Describe the solid waste management • Analyse the Social issues and the environment • Explain the Human population and Environment
17.	ICT17	RCC Design – From Prescriptive as per Codes of Practice to Performance Based	Santanu Bhanja	21/09/2020	25/09/2020	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 as per IS:13920-2016 • Identify the major design and detailing considerations • Differentiate between load and capacity design • Understand Performance based design
18.	ICT18	Introduction to Data Science and Machine Learning	Chandan Chakraborty	12/10/2020	16/10/2020	1	Faculty of Engineering & Science, Allied disciplines	On successful completion of the course the participant will be able to • Develop an understanding to the overview of data science and its applications, • Get exposure on probability concepts for data science, • Explore data science approach to the quantitative analysis of data using statistical learning methods (regression and Bayesian specially), • Contextualize the role of Machine Learning in broader technology, • Demonstrate main topics of supervised and unsupervised machine learning algorithms, • Explore few analytical methods from this field with hands-on applications.
19.	ICT19	Institutional Development	Sukanta Kumar Naskar	02/11/2020	06/11/2020	1	Faculty of all disciplines	After attending the programme, the participants will be able to: • Explore management issues for developing an Institutes • Identify the dimensions of institutional development for Technical Institute • Apply management tools for managing institutional activities
20.	ICT20	Artificial Intelligence	Samir Roy	16/11/2020	20/11/2020	1	Faculty of CSE, IT, BCA, MCA ECE, EE, ME, Civil disciplines	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.
21.	ICT21	Power Plant Instrumentation	Sagarika Pal & Subrata Chattopadhyay	23/11/2020	27/11/2020	1	Faculty of Electrical, Mechanical, Electronics & Instrumentation disciplines	After completing the course the participants will be able to • Identify electrical equipment used in power system • Explain instrument transformers [CT & PT] and their applications • Explain the concept of measurement and instrumentation in power system • Apply PLC, DCS & SCADA for power system automation • Design boiler, furnace instrumentation and control • Identify hazardous area in power plant instrumentation
22.	ICT22	Problem Based Learning	Sagarika Pal, Indrajit Saha, Kinsuk Giri, Arpan Kumar Mondal	07/12/2020	11/12/2020	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
23.	ICT23	Numerical and Statistical Methods with PYTHON	Kinsuk Giri	28/12/2020	01/01/2021	1	Faculty of all disciplines	On successful completion of the programme the participants will be able to • get an overview on different numerical and statistical methods • get an overview on solution techniques • solve problems using PYTHON

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
24.	ICT24	Organizational Behaviour	Mithu Dey	04/01/2021	08/01/2021	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
25.	ICT25	Engineering Capstone Project	Prasanta Sarkar	11/01/2021	15/01/2021	1	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	After attending the programme, the participants will be able to • Able to form Capstone Project Team • Identify Capstone Project topic • Prepare Capstone Project proposal • Develop Capstone Project • Assess Capstone Project
26.	ICT26	Introduction to Coding Theory	Rajeev Chatterjee	18/01/2021	22/01/2021	1	Faculty of Engineering discipline	After going through this program the participants will be able to: • explain Information, quality of Information, information entropy, • demonstrate the Working principles and design of AES and DES, and • demonstrate various encoding algorithm like Arithmetic Huffman, Hamming, Gray.
27.	ICT27	Statistics for Data Analysis	Chandan Chakraborty	01/02/2021	05/02/2021	1	Faculty of all disciplines	On successful completion of the course the participant will be able to • Develop an understanding of data, information and knowledge, • Explore summarization and visualization of data at different scales, • Demonstrate probability and probability distributions for data modelling, • Explore univariate, bivariate and multivariate data analysis, • Undertake the correlation and regression modelling for data fitting, • Demonstrate and practice using a range of real-world data sets. • Apply for problem solving.
28.	ICT28	Renewable Energy Sources and Emerging Technologies	Sheela Yadav Rai	15/02/2021	19/02/2021	1	Faculty of all 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
29.	ICT29	Fundamentals of Network Security	Indrajit Saha	01/03/2021	05/03/2021	1	Faculty of Engineering, MCA & BCA Disciplines	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
30.	ICT30	Development of Laboratory Instruction and Manual	Subrata Mondal	15/03/2021	19/03/2021	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.
31.	ICT31	NBA Accreditation and SAR Preparation	Rayapati Subbarao	22/03/2021	26/03/2021	1	Faculty of all disciplines	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

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

C. STATE LEVEL SHORT TERM TRAINING PROGRAMMES AT EXTENSION CENTERS

(i) For participants from Technical Institutions in the State of Odisha only.

Venue: NITTTR Kolkata Extension Centre BHUBANESWAR

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
1.	BBSR01	Programming in C++ Methodologies	Rajeev Chatterjee & Samir Roy	20/04/2020	24/04/2020	1	Faculty of CSE, IT Comp. Appl., Electronics, Electrical, Mathematics disciplines	After successful completion of the program, the participants will be able to • 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.
2.	BBSR02	Environmental Pollution and Health	Sailendra Nath Mandal	27/04/2020	01/05/2020	1	Faculty and Staff of any disciplines	After attending the programme the participants will be able to acquire – • knowledge of basic idea of Air pollution, Water pollution, Noise pollution, Land Pollution, Marine Pollution and impact on human health • skill of handling portable equipment, field kits, performing related experiments, interpreting experimental results, preparing related test-reports with remarks/comments , • attitude of hand-on working in the mobile laboratory/field (Plant Visit)
3.	BBSR03	Management of Laboratory and Workshop Classes	Dipankar Bose	04/05/2020	08/05/2020	1	Faculty of all disciplines	After attending he programme the participant will be able to • Know nature of learning processes 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
4.	BBSR04	Utilization of Instructional Media and CAI in Effective Teaching	Subrata Chattopadhyay	18/05/2020	22/05/2020	1	Faculty of Electrical, Instrumentation, Electronics & allied 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

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
5.	BBSR05	Induction Training	Subrata Mondal	01/06/2020	05/06/2020	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.
6.	BBSR06	Structural Analysis and Design with new Generation Software	Santanu Bhanja	08/06/2020	12/06/2020		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 standard software-STAAD. Pro-Latest revised version along with RCDC • Apply IS Codal provisions in analysis, design and detailing as envisaged in IS 456, 1893, 875, 13920 etc. • Analyze, design and detail real-life multi- storeyed RCC buildings • Analyze and design foundations • Participants will be awarded a complete unlimited licenced version of STAAD.Pro Connect with STAAD.Pro Advanced Concrete Design Solution for personal use on their PC's for full one year for academic purpose
7.	BBSR07	Introduction to PYTHON Programming	Kinsuk Giri	22/06/2020	26/06/2020	1	Faculty of all disciplines	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
8.	BBSR08	Induction Training	Sukanta Kumar Naskar	29/06/2020	10/07/2020	2	Faculty of all disciplines	After attending the course the participants will be able to: • Appreciate the phases of curriculum development • Analyse the quality issues of Technical Education • Identify the issues of classroom management • Develop lesson plan
9.	BBSR09	Design of Steel Structures	Mithu Dey	13/07/2020	17/07/2020	1	Faculty & Technician of Civil, Architecture & allied disciplines	After attending the program, participants are expected to be able to • Appreciate the understanding principles on plastic analysis of Steel structures. • Design the different structural elements by limit state method. • Familiar with the new code IS 800 : 2007
10.	BBSR10	Instructional Planning	Samiran Mandal	27/07/2020	31/07/2020	1	Faculty of all disciplines	After attending the programme, the participants will be able to • Develop instructional objectives for a lesson • explain the major steps in lesson planning • prepare lesson plan for a given content • construct test items for evaluation of students performance.
11.	BBSR11	Computer Numerical Controlled Machines: Constructional Features and Programming	Nirmal Kumar Mandal	03/08/2020	07/08/2020	1	Faculty of Mechanical and allied disciplines	After attending the programme the participants will be able to • Identify Machining Centre. • Develop programs on CNC Vertical machining Centre. • Operate machining Centre.

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
12.	BBSR12	Ecology and Environmental Studies	Uday Chand Kumar	10/08/2020	14/08/2020	1	Faculty and Teaching supporting staff all disciplines	After attending the programme the participants will be able to • Describe the ecological system • Understand the biodiversity • Describe the different causes of air, water and soil pollution and effect of pollution • Describe the solid waste management • Analyse the Social issues and the environment • Explain the Human population and Environment
13.	BBSR13	Electricity Act, Rules & Code of Practices	Prasanta Sarkar	24/08/2020	28/08/2020	1	Faculty of Electrical, Instrumentation, 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.
14.	BBSR14	Essentials of Strategic Management	Sukanta Kumar Naskar	07/09/2020	11/09/2020	1	Faculty of all disciplines	After attending the programme the participants will be able to: • Explore nature and scope of strategic management • Identify stages in strategic planning • Appreciate the concept of time management with strategic management
15.	BBSR15	Renewable Energy Sources and Emerging Technologies	Sheela Yadav Rai	14/09/2020	18/09/2020	1	Faculty of all 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
16.	BBSR16	Medical Instrumentation	Subrata Chattopadhyay	21/09/2020	25/09/2020	1	Faculty of Electrical, Instrumentation, Electronics & 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
17.	BBSR17	An Introductory course on Geotechnical Engineering	Jagat Jyoti Mandal	05/10/2020	09/10/2020	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme the participants will be able to • Explain basic concepts of Geotechnical Engineering and its applicability in Civil engineering • Apply these concepts to solve practical problems • Impart acquired knowledge to students in a systematic manner
18.	BBSR18	Introduction of Accreditation Mechanism - NBA Approach	Ranjan Dasgupta and Arpan Kumar Mondal	12/10/2020	16/10/2020	1	Faculty of all disciplines	• This discussion type special awareness course will provide exposure to the faculty and technical staff members of Engineering College and polytechnics for participating in forthcoming NBA accreditation process. • This is not a conventional STTP. Participants of the colleges who are keen to apply or already applied for NBA accreditation will be maximum benefitted. The course will include discussion on need and benefit of accreditation, role of different stakeholders, preparation for accreditation, Washington Accord, mechanism followed by NBA.

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
19.	BBSR19	Applications of MATLAB in Control System, Image Processing, Fuzzy Logic and Circuit Simulation	Sagarika Pal	02/11/2020	06/11/2020	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 • Use SimPower Systems
20.	BBSR20	Thermodynamics and Power Plant Engineering	Rayapati Subbarao	16/11/2020	20/11/2020	1	Faculty of Mechanical & allied disciplines	At the end of the programme, the participants will be to: • paraphrase the basics of thermodynamics. • apply laws of thermodynamics in various problems. • analyze thermodynamic cycles. • paraphrase the basics of power plants. • recognise different types of power plants.
21.	BBSR21	Laboratory Instructions in Electrical and Electronics Engineering	Soumitra Kumar Mandal	23/11/2020	27/11/2020	1	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	After attending the programme, the participants will be able to • Choose experiments form the detailed curriculum • Perform the experiments • Record & analyze the experimental data • Write the instruction manual for students • Evaluate the laboratory performance of students
22.	BBSR22	Essentials of HRM	Sukanta Kumar Naskar	07/12/2020	11/12/2020	1	Faculty of all disciplines	After attending the programme the participants will be able to: • Explore the functions of HRM • Analyse the functions of HRM for applying respective
23.	BBSR23	RCC Design – Prescriptive Design as per IS:456-2000, IS:13920-2016 and beyond with application of Software	Santanu Bhanja	14/12/2020	18/12/2020	1	Faculty of Civil, Architecture & allied disciplines	After attending the programme, the participants will be able to • 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 as per IS:13920-2016 • Identify the major design and detailing considerations • Differentiate between load and capacity design • Understand Performance based design • Participants will be awarded a complete unlimited licenced version of STAAD.Pro Connect with STAAD.Pro Advanced Concrete Design Solution for personal use on their PC's for full one year for academic purpose
24.	BBSR24	Theory, Operation and Applications of Transducers & Actuators in Industry	Subrata Chattopadhyay	28/12/2020	01/01/2021	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

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
25.	BBSR25	Question Paper Designing and Student's Performance Evaluation	Chandan Chakraborty	11/01/2021	15/01/2021	1	Faculty of all disciplines	On successful completion of the course the participant will be able to • Develop an understanding of various structures and characteristics of question papers • Explore different assessment and evaluation methods, • Design and practice of rubrics for student's performance evaluation, • Explore and practice of designing question papers at per national exams like JEE, GATE, UGC/CSIR NET, SET, RET etc. • Apply to perform evaluation task for seminar, project and laboratory works etc., as case studies.
26.	BBSR26	Control Engineering with MATLAB	Prasanta Sarkar	25/01/2021	29/01/2021	1	Faculty of Electrical, Instrumentation, Electronics & allied 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
27.	BBSR27	Outcome Based Accreditation and NBA	Urmila Kar	01/02/2021	05/02/2021	1	Faculty & Technicians of all disciplines	After attending the programme, participants will be able to: • 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 features of Outcome Based Curriculum (OBC) • identify outcome based learning-teaching and assessment processes • explain the process of preparing self-assessment report (SAR) for Accreditation by NBA
28.	BBSR28	Introduction to Network Security	Indrajit Saha	15/02/2021	19/02/2021	1	Faculty of Engineering, MCA & BCA disciplines	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
29.	BBSR29	Designing Question Papers	Habiba Hussain	01/03/2021	05/03/2021	1	Faculty of all disciplines	After attending he programme the participant will be able to • Distinguish between different types of evaluation • Prepare TOS • Develop questions to assess learning
30.	BBSR30	Power Plant Instrumentation	Subrata Chattopadhyay	15/03/2021	19/03/2021	1	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	After attending the course the participants will be able to • Understand electrical equipment used in power system • Know instrument transformers [CT & PT] and their applications • Familiar with measurement and instrumentation in power system • Classify the Different types of transducers and fundamental of pressure, flow, temperature, level, velocity, acceleration, vibration, position, displacement measuring transducers used in power system. • Application of PLC & DCS in power system • Apply SCADA and power system automation • Design boiler, furnace instrumentation and control • Know hazardous area classification
31.	BBSR31	Basics of Welding processes and CNC Machining	Arpan Kumar Mondal	22/03/2021	26/03/2021	1	Faculty and Technical Staff of Mechanical & allied disciplines	After attending the programme the participants will be able to • Classify various types of arc welding processes. • Explain the principles of MMW, SAW, TIG, MIG, Pulsed Welding processes, Plasma Welding, and Laser Welding. • Perform independently various arc welding processes. • Understand the basics of CNC programming

(ii) For participants from Technical Institutions in North East States only

Venue: NITTTR Kolkata Extension Centre GUWAHATI

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
1.	GUW01	Estimating & Costing of Non-Conventional Energies	Sheela Yadav Rai	27/04/2020	01/05/2020	1	Faculty of all 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
2.	GUW02	Applications of MATLAB in Control System, Image Processing, Fuzzy Logic and Circuit Simulation	Sagarika Pal	04/05/2020	08/05/2020	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 • Use SimPower Systems
3.	GUW03	Outcome Based Accreditation and NBA	Urmila Kar	18/05/2020	22/05/2020	1	Faculty & Technicians of all disciplines	After attending the programme, participants will be able to: • 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 features of Outcome Based Curriculum (OBC) • identify outcome based learning-teaching and assessment processes • explain the process of preparing self-assessment report (SAR) for Accreditation by NBA
4.	GUW04	Choice Based Credit System (CBCS) and Student's Performance Evaluation	Chandan Chakraborty	01/06/2020	05/06/2020	1	Faculty of all disciplines	On successful completion of the course the participant will be able to • Understand the basic philosophy and structure of CBCS as recommended by University Grant Commission (UGC) in Institutional framework, • Explore the meaning of core, discipline specific elective, skill and ability enhancement core courses and their implication in the future education, • Apply in their own programme and ensure the maximum utility of the resource in order to enhance the student's learning and outcome, • Develop an understanding of various assessment & evaluation methods, • Design and practice of Rubrics for student's performance evaluation, • Apply to perform the evaluation task for seminar, project and laboratory works etc., as case studies.
5.	GUW05	Electricity Act, Rules & Code of Practices	Prasanta Sarkar	15/06/2020	19/06/2020		Faculty of Electrical, Instrumentation, 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.
6.	GUW06	Numerical and Statistical Methods with SCILAB	Kinsuk Giri	29/06/2020	03/07/2020	1	Faculty of all disciplines	On successful completion of the programme the participants will be able to • get an overview on different numerical and statistical methods • get an overview on solution techniques • solve problems using SCILAB

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
7.	GUW07	Approaches in Designing Curriculum	Sukanta Kumar Naskar	13/07/2020	17/07/2020	1	Faculty of all disciplines	After attending the programme the participants will be able to: • Explore various conceptual changes in Technical curriculum development • Identify stages in developing curriculum • Analyse the existing curricula
8.	GUW08	NBA Accreditation and SAR preparation	Rayapati Subbarao	27/07/2020	31/07/2020	1	Faculty of all disciplines	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
9.	GUW09	Mobile and Wireless Network	Rajeev Chatterjee	10/08/2020	14/08/2020	1	Faculty of Engineering discipline	After going through this program the participants will be able to: • Setting of a PAN • Configuration of WIFI system and security parameters • Mobile network and security • Identity and access management
10.	GUW10	Engineering System Modelling	Nirmal Kumar Mandal	24/08/2020	28/08/2020	1	Faculty of all disciplines	After attending the programme the participants will be able to • Model a system. • Analyse the physical system
11.	GUW11	Environmental Pollution Analysis and Health	Sailendra Nath Mandal	31/08/2020	11/09/2020	2	Faculty and Staff of any disciplines	After attending the programme the participants will be able to gain and develop • knowledge of basic concept of Air pollution, Water pollution, Noise pollution, Light pollution and impact on human health, • 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, • attitude of hands-on-working in the laboratory/field. (Plant Visit)
12.	GUW12	Design and Analysis of Algorithms	Samir Roy	21/09/2020	25/09/2020	1	Faculty of CSE, IT, BCA, MCA ECE, EE, ME, Civil disciplines	After successful completion the course the participant will be able to • Design an algorithm for a given problem. • Analyse a given algorithm. • Explain an algorithm in classroom.
13.	GUW13	Machine Learning and It's Applications	Indrajit Saha	12/10/2020	16/10/2020	1	Faculty of Engineering, MCA & BCA Disciplines	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
14.	GUW14	Fundamental and Applications of Nanomaterials	Subrata Mondal	02/11/2020	06/11/2020	1	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.
15.	GUW15	AutoCAD for Engineers	Mithu Dey	16/11/2020	20/11/2020	1	Faculty & Technician 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 Field

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
16.	GUW16	Control Engineering with MATLAB	Prasanta Sarkar	30/11/2020	04/12/2020	1	Faculty of Electrical, Instrumentation, Electronics & allied 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
17.	GUW17	Introduction of Accreditation Mechanism-NBA Approach	Ranjan Dasgupta & Arpan Kumar Mondal	14/12/2020	18/12/2020	1	Faculty of all disciplines	• This discussion type special awareness course will provide exposure to the faculty and technical staff members of Engineering college and polytechnics for participating in forthcoming NBA accreditation process. This is not a conventional STTP. Participants of the colleges who are keen to apply or already applied for NBA accreditation will be maximum benefitted. The course will include discussion on need and benefit of accreditation, role of different stakeholders, preparation for accreditation, Washington Accord, mechanism followed by NBA.
18.	GUW18	Concept Mapping in Teaching Learning	Samiran Mandal	28/12/2020	01/01/2021	1	Faculty of Mechanical and allied disciplines	After attending the course the participants will be able to • explain discrimination and equivalence definition, generation and concept • analyse a concept • construct a concept map • use concept map in teaching and learning
19.	GUW19	Power Electronics in Power System	Soumitra Kumar Mandal	11/01/2021	15/01/2021	1	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	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
20.	GUW20	Power Plant Instrumentation	Subrata Chattopadhyay	25/01/2021	29/01/2021	1	Faculty of Electrical, Instrumentation, Electronics & allied disciplines	After attending the course the participants will be able to • Understand electrical equipment used in power system • Know instrument transformers [CT & PT] and their applications • Familiar with measurement and instrumentation in power system • Classify the Different types of transducers and fundamental of pressure, flow, temperature, level, velocity, acceleration, vibration, position, displacement measuring transducers used in power system. • Application of PLC & DCS in power system • Apply SCADA and power system automation • Design boiler, furnace instrumentation and control • Know hazardous area classification
21.	GUW21	Refresher Course in Strength of Material	Jagat Jyoti Mandal	01/02/2021	05/02/2021	1	Faculty of Civil, Mechanical, Architecture & allied disciplines	After attending the programme the participants will be able to • Explain basic concepts of Engineering Mechanics & Strength of Material • Apply these concepts to solve simple engineering problems • Teach the related topics in more efficient manner
22.	GUW22	Ecology and Environmental Studies	Uday Chand Kumar	15/02/2021	19/02/2021	1	Faculty and Teaching supporting staff of all disciplines	After attending the programme the participants will be able to • Describe the ecological system • Understand the biodiversity • Describe the different causes of air, water and soil pollution and effect of pollution • Describe the solid waste management • Analyse the Social issues and the environment • Explain the Human population and Environment

Sl. No.	Prog. Code	Programme Title	Programme Co-ordinator(s)	Date		Week	Target Participant / Group	Programme Objectives
				From	To			
23.	GUW23	Management of Laboratory and Workshop Classes	Dipankar Bose	01/03/2021	05/03/2021	1	Faculty of all disciplines	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.
24.	GUW24	Effective Teaching	Habiba Hussain	15/03/2021	19/03/2021	1	Faculty of all disciplines	After attending he programme the participant will be able to • Analyse components of effective teaching • Identify paradigm change in Learning-Teaching system • Design instruction for active learning • Manage classroom behaviour

Faculty Profile

Dr. Phalguni Gupta
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Phalguni Gupta who is a Professor in the Department of Computer Science & Engineering, Indian Institute of Technology Kanpur (IITK), Kanpur, India, has joined this Institute (on Deputation) as the Director with effect from 25 April 2014. He received the Doctoral degree from Indian Institute of Technology Kharagpur, India in 1986. He works in the field of biometrics, data structures, sequential algorithms, parallel algorithms, image processing. He is an author of 3 books and 14 book chapters. He has published more than 300 papers in International Journals and International Conferences. He was the Principal Investigator of several research projects in the area of Biometric Systems, Image Processing, Graph Theory and Network Flow. Prior to joining IITK in 1987, he worked in Space Applications Centre Ahmedabad, Indian Space Research Organization, India.

"A teacher can never truly teach unless he is still learning himself. A lamp can never light another lamp unless it continues to burn its own flame."

- Rabindra Nath Tagore

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Shri Arpan Kumar Mondal is a faculty member in the Department of Mechanical Engineering, National Institute of Technical Teachers' Training & Research Kolkata. He is currently pursuing his doctoral study in Mechanical Engineering at Indian Institute of Technology Guwahati. He did M. Tech from National Institute of Technology Rourkela and B. Tech from Haldia Institute of Technology under WBUT. He has 14+ publications in reputed International Journals and Conferences. He has been a reviewer of more than 5 international journals. Apart from Teaching and R&D, he has also been involved in several projects, organizing workshops/conferences, installation of labs, preparation of course materials etc.

His areas of interests include Welding Technology, Fusion welding processes, Submerged Arc Welding, Computational Welding Mechanics, Heat transfer in welding, Residual stress and distortion, Application of optimization in manufacturing, Production Engineering, Manufacturing Technology, Plastics Technology, Composites and Bio-materials for artificial implants.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	ICT03	Advanced Welding Processes and Physics of Welding	11/05/2020	15/05/2020	1
2.	PS05	Problem Based Learning	18/05/2020	29/05/2020	2
3.	PS07	Induction Training	15/06/2020	26/06/2020	2
4.	CU38	Workshop Practice in Mechanical Engineering	20/07/2020	31/07/2020	2
5.	CU47	Basics of Computer, IT and ITes for Faculty and Staff	10/08/2020	21/08/2020	2
6.	CU56	Advanced Welding Processes and Physics of Welding	31/08/2020	11/09/2020	2
7.	CU65	Basics of Welding Processes and CNC Machining	21/09/2020	25/09/2020	1
8.	BBSR18	Introduction of Accreditation Mechanism - NBA Approach	12/10/2020	16/10/2020	1
9.	PS22	Introduction of Accreditation Mechanism-NBA Approach	23/11/2020	27/11/2020	1
10.	ICT22	Problem Based Learning	07/12/2020	11/12/2020	1
11.	GUW17	Introduction of Accreditation Mechanism-NBA Approach	14/12/2020	18/12/2020	1
12.	CU104	Theory and Practices on Advanced Welding Processes: TIG, MIG, Pulsed TIG, Medium and Soft Plasma Arc Welding	25/01/2021	05/02/2021	2
13.	CU113	MS Project Software Based	15/02/2021	19/02/2021	1
14.	PS32	Make in India Concept – Role of Start-up and Incubation	15/03/2021	19/03/2021	1
15.	BBSR31	Basics of Welding processes and CNC Machining	22/03/2021	26/03/2021	1

"Education is the most powerful weapon which you can use to change the world."

- Nelson Mandela

Dr. Chandan Chakraborty
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Dr. Chandan Chakraborty is a Professor in the Department of Computer Science & Engineering, National Institute of Technical Teachers' Training & Research Kolkata. He received his Master's and Doctoral degree from IIT Bombay and IIT Kharagpur, India in 2001 and 2006 respectively. As an interdisciplinary researcher, he has significantly contributed in the development of advanced computing algorithms in the field of image analytics and machine learning/deep learning for biomedical imaging applications. He published more than 90 peer-reviewed papers in the International Journals. Few of these may be named in the peer-reviewed journals viz., IEEE Trans. on Image Processing, IEEE Trans. on NanoBioscience, Pattern Recognition, Nature - Scientific Reports, Computerized Medical Imaging and Graphics, Applied Soft Computing, Analytical Methods (RSC), Journal of Microscopy etc. along with 02 US patents granted. In many of his research works, integrated machine learning framework using statistical data analytics and statistical learning algorithms like Bayesian learning and Support Vector Machine have been designed and implemented for solving real life problems.

His current research interests include statistical data analytics, artificial intelligence, machine learning, data science, image processing and educational data mining. Recently, Prof. Chakraborty has focused on developing statistical and data mining techniques for modeling and classification of enormous data being generated at educational setting for improving teaching-learning process as well as students' behavioral pattern analysis.

Prof. Chakraborty has received various prestigious awards viz., ISCA Young Scientist Award from Hon'ble President of India, Dr APJ Abdul Kalam, DAE-Young Researcher Award, DST Young Scientist Award, ICMR International Fellowship Award, IBM Faculty Award (NY, USA).

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	MGT01	Research Methodology and Intellectual Property Right (IPR)	13/04/2020	24/04/2020	2
2.	GUW04	Choice Based Credit System (CBCS) and Student's Performance Evaluation	01/06/2020	05/06/2020	1
3.	CU28	Probability and Statistics	22/06/2020	03/07/2020	2
4.	CU35	Big Data Analytics	06/07/2020	10/07/2020	1
5.	CU37	Pattern Recognition: Theory and Applications	20/07/2020	24/07/2020	1
6.	CU46	Data Science with R programming	10/08/2020	21/08/2020	2
7.	CU61	Applied Machine Learning	07/09/2020	18/09/2020	2
8.	ICT18	Introduction to Data Science and Machine Learning	12/10/2020	16/10/2020	1
9.	PS19	Creative Problem Solving, Innovation and Meaningful R & D	09/11/2020	13/11/2020	1
10.	BBSR25	Question Paper Designing and Student's Performance Evaluation	11/01/2021	15/01/2021	1
11.	PS30	Research in Technical Education	25/01/2021	29/01/2021	1
12.	ICT27	Statistics for Data Analysis	01/02/2021	05/02/2021	1
13.	CU112	Data Science and Machine Learning	15/02/2021	19/02/2021	1
14.	MGT08	Analytics for Decision Making	15/03/2021	19/03/2021	1
15.	CU123	Introduction of Machine Learning and Internet of Things	22/03/2021	26/03/2021	1

"Tell me and I forget. Teach me and I remember. Involve me and I learn."

- Bengamin Franklin

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Dr. Dipankar Bose is a faculty member in the Department of Mechanical Engineering and his present research area includes Non-traditional Engineering, Reliability Engineering, Welding Technology, Fluid Power Engineering etc. He graduated from the University of Calcutta, India in Mechanical Engineering and received his post graduate and doctoral degrees in the area of Mechanical Engineering from Jadavpur University, Kolkata.
Since joining at the Institute from NERIST, Deemed University, Arunachal Pradesh in 2003, Dr. Bose has offered several STTPs in the areas of Non-Traditional Machining, Fluid Power Technologies, Various Welding Processes, Fabrication Techniques, Metrology and Measurement. He has published more than 40 papers in various international and National Journals and Proceedings and is a life member of ISTE. At present, he is the Chairman, Purchase Committee of the Institute. Beside this, he is also a member of other external academic bodies of WBUT.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	BBSR03	Management of Laboratory and Workshop Classes	04/05/2020	08/05/2020	1
2.	CU10	Fluid Power	11/05/2020	15/05/2020	1
3.	ICT04	Skill Assessment in Laboratory and Workshop	18/05/2020	22/05/2020	1
4.	CU22	Theory & Practice –Turning, Milling and Drilling	08/06/2020	12/06/2020	1
5.	PS10	Development of Laboratory Instruction Sheets	13/07/2020	17/07/2020	1
6.	CU67	Engineering Metrology	05/10/2020	09/10/2020	1
7.	CU82	Non-conventional Machining Processes	30/11/2020	04/12/2020	1
8.	CU88	Hydraulics and Pnumatics	14/12/2020	18/12/2020	1
9.	CU94	Concept Teaching in Fluid Mechanics	04/01/2021	08/01/2021	1
10.	CU110	Advanced Welding Processes	08/02/2021	12/02/2021	1
11.	GUW23	Management of Laboratory and Workshop Classes	01/03/2021	05/03/2021	1
12.	PS32	Make in India Concept – Role of Start-up and Incubation	15/03/2021	19/03/2021	1

"An investment in knowledge pays the best interest."

- Benjamin Franklin

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Dr. Habiba Hussain is a faculty member in the Department of Education and Management. A post-graduate in Bio-Sciences (Spl. Biotechnology) & in Education, she earned her Doctorate Degree in Education from GGDU, Bilaspur, M.P.
She joined this Institute in January, 2002. She has teaching and training experience of more than 15 years. She has been actively involved in the long-term as well as short-term training programmes since 2002. She has also contributed towards the world-bank research projects under Tech-Ed II. Since her joining in this Institute, she has offered training programmes in several themes under the broader areas of Educational Technology, Educational Psychology, Management in Education, HRM, Soft Skills, Research Methodology, Educational Measurement & Evaluation.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	PS08	Student Mentorship	22/06/2020	26/06/2020	1
2.	MGT03	Leadership & Team Building in Academia	13/07/2020	17/07/2020	1
3.	PS14	Writing Research Proposals	03/08/2020	07/08/2020	1
4.	ICT15	Fundamentals of OBE	31/08/2020	04/09/2020	1
5.	PS18	Teaching Skill Development	05/10/2020	09/10/2020	1
6.	PS21	Designing Teaching for Experiential Learning	09/11/2020	13/11/2020	1
7.	PS26	Pedagogical Communication	14/12/2020	18/12/2020	1
8.	PS29	Induction Training	04/01/2021	15/01/2021	2
9.	BBSR29	Designing Question Papers	01/03/2021	05/03/2021	1
10.	GUW24	Effective Teaching	15/03/2021	19/03/2021	1

"Education is not preparation for life, education is life itself."

- John Dewey

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Dr. Saha is a faculty member in the department of Computer Science and Engineering, NITTTR, Kolkata. He has done his postdoctoral research at the National Research Council, Italy and University of Wroclaw, Poland. He was the visiting research scientist at CWI, Netherlands, INRIA France, IIT-CNR, Italy, ICM and CeNT in University of Warsaw (UW), Poland. He obtained his Ph.D degrees in Computer Science and Engineering and Bioinformatics from Jadavpur University, India and Polish Academy of Sciences, Poland. He has co-authored of more than 50 research papers in various International Journals and Conferences. Dr. Saha is an active member of the board of reviewers for several International Journals. Currently, he is a Principal Investigator of a bilateral project between India and Poland funded by DST, India on Breast Cancer research. His research interest includes Education Technology, Computational Intelligence, Computational Biology, Machine Learning, Image Processing and Pattern Recognition.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	PS05	Problem Based Learning	18/05/2020	29/05/2020	2
2.	PS07	Induction Training	15/06/2020	26/06/2020	2
3.	ICT07	Fundamentals of Network Security	29/06/2020	03/07/2020	1
4.	CU44	Multimedia Tools and It's Applications	03/08/2020	14/08/2020	2
5.	CU54	Data Analysis using MATLAB	31/08/2020	04/09/2020	1
6.	CU64	Image Processing using MATLAB	14/09/2020	25/09/2020	2
7.	GUW13	Machine Learning and It's Applications	12/10/2020	16/10/2020	1
8.	ICT22	Problem Based Learning	07/12/2020	11/12/2020	1
9.	MGT06	Research Methodology in Engineering and Technical Writing using LaTeX	14/12/2020	24/12/2020	2
10.	CU103	Introduction to Soft Computing	18/01/2021	29/01/2021	2
11.	CU106	Introduction to Web Designing using PHP and MySQL	01/02/2021	05/02/2021	1
12.	BBSR28	Introduction to Network Security	15/02/2021	19/02/2021	1
13.	ICT29	Fundamentals of Network Security	01/03/2021	05/03/2021	1
14.	CU123	Introduction of Machine Learning and Internet of Things	22/03/2021	26/03/2021	1

"The roots of education are bitter, but the fruit is sweet."

- Aristotle

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Dr. Jagat Jyoti Mandal is attached to the Department of Civil Engineering of National Institute of Technical Teachers' Training and Research (NITTTR), Kolkata, as a faculty member since 2008. After graduating with Honours in Civil Engineering from IIT Kharagpur, he obtained his M.Tech in Civil Engineering (with Specialization in Soil Mechanics and Foundation Engineering) and Ph.D in Civil Engineering from IIT Kharagpur. He has taught various subjects of Civil Engineering at Graduate and Post-Graduate level at various institutes for the past 30 years. He has around sixteen articles in International and National journals and conference proceedings. His areas of interest include Numerical Geo-technique, Soil and Structural Dynamics and their applications in Earth quake Engineering, Ground Improvement Techniques. He has conducted Short Term Training Programmes on various topics including Geotechnical Investigation and Testing, Analysis and Design of Foundations, Ground Improvement Techniques, Testing of Civil Engineering Materials, Introductory Courses on Applications of FEM in Civil Engineering, Introductory courses on Soil and Structural dynamics, Design of Reinforced Concrete structural Elements, Surveying by Total Station and so on.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	CU13	Laboratory and Field Testing of Soil and Preparation of Soil Investigation Report	18/05/2020	29/05/2020	2
2.	CU27	Laboratory Testing on Soil and Preparation of Report	22/06/2020	26/06/2020	1
3.	CU39	Design and Detailing of Reinforced Concrete Structural Elements	27/07/2020	07/08/2020	2
4.	ICT14	Fundamental Concepts of Geotechnical Engineering	24/08/2020	28/08/2020	1
5.	BBSR17	An Introductory course on Geotechnical Engineering	05/10/2020	09/10/2020	1
6.	CU75	Selection, Analysis and Design of Shallow Foundations	09/11/2020	20/11/2020	2
7.	CU95	Testing of Pavement Materials, Analysis and Design of Flexible Pavements	04/01/2021	15/01/2021	2
8.	GUW21	Refresher Course in Strength of Material	01/02/2021	05/02/2021	1

"Education's purpose is to replace an empty mind with an open one."

- Malcolm S. Forbes

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Dr. Kinsuk Giri is an Assistant Professor in the Department of Computer Science and Engineering, NITTTR, Kolkata. His main research area is Numerical Simulations, Computational Astrophysics which includes Hydrodynamics, Accretion and Outflows around compact objects, Shocks in Accretion, Viscous Flows, Two Component Accretion Flow (TCAF), Magneto Hydrodynamics, etc. He received both his graduation and post graduation in Mathematics from Visva-Bharati Central University and was awarded NET-JRF and LS in Mathematical Sciences in 2008/2007 by CSIR-UGC. Dr. Giri was awarded Ph.D. (Science) in 2013 in Numerical and Computational Astrophysics, with an emphasis on computational fluid dynamics and accretion flows in astrophysics from S. N. Bose National Centre for Basic Sciences, India (Degree awarded by Jadavpur University, Kolkata). Subsequently he joined as a MOST Postdoctoral Fellow at National Tsing Hua University, Taiwan. After completing his two years postdoc tenure, he joined at NITTTR, Kolkata as an Assistant Professor on September, 2015.

The work developed in his Ph.D thesis addresses very important and relevant issues of accretion processes around black holes. His thesis received the "Outstanding Ph.D Thesis Award" by Springer-Verlag, Berlin and was published as a Book in 2014. During his research and academic career, he delivered few invited lectures and several contributed talks within India as well as abroad during his academic visits to various countries, e.g., Italy, Sweden, Russia, Japan, France, Taiwan, China, Turkey, Nepal etc. He is in the editorial and reviewer board of few international and national journals.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	CU03	Numerical and Statistical Methods with PYTHON	27/04/2020	01/05/2020	1
2.	PS05	Problem Based Learning	18/05/2020	29/05/2020	2
3.	PS07	Induction Training	15/06/2020	26/06/2020	2
4.	BBSR07	Introduction to PYTHON Programming	22/06/2020	26/06/2020	1
5.	GUW06	Numerical and Statistical Methods with SCILAB	29/06/2020	03/07/2020	1
6.	CU35	Big Data Analytics	06/07/2020	10/07/2020	1
7.	CU40	Problem Solving with SCILAB	27/07/2020	07/08/2020	2
8.	CU63	Exposure in Optimization	14/09/2020	18/09/2020	1
9.	CU76	Introduction to PYTHON Programming	16/11/2020	20/11/2020	1
10.	ICT22	Problem Based Learning	07/12/2020	11/12/2020	1
11.	MGT06	Research Methodology in Engineering and Technical Writing using LaTeX	14/12/2020	24/12/2020	2
12.	ICT23	Numerical and Statistical Methods with PYTHON	28/12/2020	01/01/2021	1
13.	CU98	Discrete Mathematics	11/01/2021	15/01/2021	1
14.	CU106	Introduction to Web Designing using PHP and MySQL	01/02/2021	05/02/2021	1
15.	CU116	Mathematical Foundation of Computer Science	22/02/2021	05/03/2021	2
16.	CU124	HPC and Cloud Computing	22/03/2021	26/03/2021	1

"A true education is an ornament in times of prosperity and it is a refuge in times of adversity."

- Aristotle

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Mrs. Mithu Dey is a faculty member in the Department of Civil Engineering and her present research area include Numerical analysis, FRP composite plate, Software Application in Structural Engineering etc. She graduated from Jadavpur University and completed M. Tech. degree from BESU in the field of Structural Engineering.
She served this Institute for more than six years teaching in this institute. She has taught various topics of Civil Engineering at Graduate and Post-Graduate level. She has conducted Short Term Training Programmes on various topics including Design of Steel Structures using latest code(IS 800-2007), advanced Structural analysis, Drawing using software, Lab oriented programme and so on.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	CU15	Laboratory Practice on Building Materials & NDT	01/06/2020	05/06/2020	1
2.	BBSR09	Design of Steel Structures	13/07/2020	17/07/2020	1
3.	ICT12	Professional Values, Ethics and Sustainability Development	10/08/2020	14/08/2020	1
4.	CU59	Analysis and Design of Structures by Limit State Method using Software.	07/09/2020	11/09/2020	1
5.	GUW15	AutoCAD for Engineers	16/11/2020	20/11/2020	1
6.	CU79	Design of Steel Structure	23/11/2020	27/11/2020	1
7.	CU85	Application of AutoCAD in Engineering & basic sciences	07/12/2020	11/12/2020	1
8.	ICT24	Organizational Behaviour	04/01/2021	08/01/2021	1
9.	CU105	Earthquake Resistant Structures using Software with Advanced Technology	01/02/2021	05/02/2021	1
10.	CU122	Testing of Pavement Materials	22.03.2021	26.03.2021	1

"The aim of education is the knowledge not the facts but of values."

- William Ralph Inge

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Shri Nirmal Kumar Mandal is a member of faculty in the Dept. of Mechanical Engineering and his present areas of interest include Computer Graphics, CAD/CAM, CNC Machines, FEM, and Mechanical Vibrations etc.. He had graduated from Bengal Engineering College (now IIEST) and received his post graduate degree in the area of Production Engineering from the Jadavpur University.
Since his joining at NITTTR, Kolkata in October 1994, he offered several STTPs in the areas of Computer Graphics, Automated Manufacturing System, Automation, FEM, CAD/CAM and it's allied areas. He has also served the Institute with several administrative responsibilities like Senior Administrative Officer, member, Board of Governors etc.
He has about 20 publications in various National and International journals and conferences.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	CU04	CAD/CAM	27/04/2020	01/05/2020	1
2.	CU19	Operation and Programming in CNC Machines	01/06/2020	12/06/2020	2
3.	CU31	Three Dimensional Modelling with AUTOCAD and SOLIWORKS	29/06/2020	10/07/2020	2
4.	ICT10	Development of Laboratory and Workshop Instructions	27/07/2020	31/07/2020	1
5.	BBSR11	Computer Numerical Controlled Machines: Constructional Features and Programming	03/08/2020	07/08/2020	1
6.	CU45	Automated Manufacturing Systems	10/08/2020	14/08/2020	1
7.	GUW10	Engineering System Modelling	24/08/2020	28/08/2020	1
8.	CU62	Mathematics with Engineering applications and Graphical Interpretations	14/09/2020	18/09/2020	1
9.	CU78	Mathematics with Engineering applications and Graphical Interpretations	16/11/2020	20/11/2020	1
10.	CU92	Optimization with MATLAB Applications	28/12/2020	08/01/2021	2
11.	CU113	MS Project Software Based	15/02/2021	19/02/2021	1
12.	CU126	Finite Element Analysis with Ansys Applications	22/03/2021	26/03/2021	1

"Education is a progressive discovery of our ignorance."

- Richard Cecil

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Dr. Prasanta Sarkar is a faculty member in the Department of Electrical Engineering since 2005. He received B.Sc degree from Calcutta University in 1978, Graduate degree in Electrical Engineering from The Institution of Engineers (India) in 1985, ME degree in Electrical Engineering from Allahabad University in 1991 and Ph.D. degree in Electrical Engineering from Indian Institute of Technology, Kharagpur, in 2001.

From 1982 to 1992, he served Northern Railway, Allahabad as Electrical supervisor and from 1992 to 2005 as faculty in North Eastern Regional Institute of Science and Technology, Nirjuli, Arunachal Pradesh. He has about 34 years of working experience in academics and Industry in the field of Electrical Engineering. His present areas of interest include Control Systems, System Identification, Model Order Reduction and Intelligent Control. He is a life member of Indian Society for Technical Education, System Society of India and member, The Institution of Engineers (India) and Institute of Electrical and Electronics Engineers.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	CU12	Electricity Act, Rules & Code of Practices	18/05/2020	22/05/2020	1
2.	ICT05	Electricity Act, Rules & Code of Practices	01/06/2020	05/06/2020	1
3.	GUW05	Electricity Act, Rules & Code of Practices	15/06/2020	19/06/2020	
4.	CU30	Application of MATLAB in Engineering	29/06/2020	03/07/2020	1
5.	PS11	Engineering Capstone Project	13/07/2020	17/07/2020	1
6.	BBSR13	Electricity Act, Rules & Code of Practices	24/08/2020	28/08/2020	1
7.	CU69	Control Engineering with MATLAB	12/10/2020	16/10/2020	1
8.	GUW16	Control Engineering with MATLAB	30/11/2020	04/12/2020	1
9.	ICT25	Engineering Capstone Project	11/01/2021	15/01/2021	1
10.	BBSR26	Control Engineering with MATLAB	25/01/2021	29/01/2021	1
11.	CU114	Lab Experiment in Electrical Motoros, Electrical Machine and Control	15/02/2021	19/02/2021	1

"Education is training the mind and not stuffing the brain."

- Swami Ranganathananda

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Shri Rajeev Chatterjee is working as a faculty member in the Dept. of Computer Science & Engineering of National Institute of Technical Teachers' Training and Research, Kolkata, since January 2001. Previously he was working as a Lecturer in an Engineering College. He obtained his Bachelor's Degree in Engineering from Karnataka University, Dharwad in the field of Computer Science. He obtained his Master of Technology degree in Multimedia and Software Systems from West Bengal University of Technology, Kolkata. He has more than 15 years of teaching experience at Graduate and Post-Graduate levels. He has around seven articles in International and National conference proceedings.

Rajeev Chatterjee has conducted a number of Training Programmes for the teachers of various institutes including Polytechnics, Engineering Colleges, NITs and Universities in the area of Fundamentals of Computer Systems, Computer Networking, Mobile and Personal Area Networking, Programming in C/C++, e-Learning and related areas. He has also conducted teachers training for Vocational Education System. His areas of interest include IP based Networks, Design and Development of IT Infrastructure, e-Learning, Confidence Based Learning, Human Computer Interaction, ICT in Education, IT and ITES in Vocational Education System. He is also a member of National Syllabus Committee of NEILET in the area of Multimedia.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	CU01	Advance Programming in C	13/04/2020	17/04/2020	1
2.	BBSR01	Programming in C++ Methodologies	20/04/2020	24/04/2020	1
3.	CU14	Networking Principles, Management and Administration	18/05/2020	29/05/2020	2
4.	CU21	IP Networking	08/06/2020	19/06/2020	2
5.	GUW09	Mobile and Wireless Network	10/08/2020	14/08/2020	1
6.	CU81	Network Infrastructure and Cloud Security	30/11/2020	04/12/2020	1
7.	ICT26	Introduction to Coding Theory	18/01/2021	22/01/2021	1
8.	PS31	Design and Development of content for e-Learning	01/02/2021	12/02/2021	2

"Education is the Kindling of a Flame, not the filling of a vessel."

- Socrates

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Dr. Dasgupta is a member of faculty in the Dept. of Computer Science & Engineering and his present research area includes E-Learning, Software Engineering, Cloud Computing etc. He had graduated from the University of Calcutta, India in Electronics and received his post graduate and doctoral degrees in the area of Computer Science from the same University.

Since his joining at NITTTR, Kolkata from Jadavpur University in 1993 he offered several STTPs in the areas of DBMS, Software Engineering, C Programming and Networking. He had also served the Institute with several other responsibilities like Chairman, Purchase Committee, Chairman, Library Committee, member, Board of Governors etc. At present he has the responsibility of the Secretary, Academic Council. He is also connected with several other external academic bodies like AICTE, NBA.

He had more than 50 publications in various conferences and journals and is a member of IEEE Computer Society.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	CU16	Database Design Theory and Practice	01/06/2020	05/06/2020	1
2.	ICT07	Fundamentals of Network Security	29/06/2020	03/07/2020	1
3.	CU41	Software Engineering: Theory and Practice	27/07/2020	07/08/2020	2
4.	BBSR18	Introduction of Accreditation Mechanism - NBA Approach	12/10/2020	16/10/2020	1
5.	CU74	Design of Payroll Systems using ORACLE	02/11/2020	13/11/2020	2
6.	PS22	Introduction of Accreditation Mechanism-NBA Approach	23/11/2020	27/11/2020	1
7.	CU81	Network Infrastructure and Cloud Security	30/11/2020	04/12/2020	1
8.	GUW17	Introduction of Accreditation Mechanism-NBA Approach	14/12/2020	18/12/2020	1
9.	PS31	Design and Development of content for e-Learning	01/02/2021	12/02/2021	2
10.	CU118	Design of Web-applications using DBMS (PHP & MySQL)	01/03/2021	12/03/2021	2
11.	CU124	HPC and Cloud Computing	22/03/2021	26/03/2021	1

"Education has to produce the perfect man – sound in character, active in mind and strong in body."

- Plato

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Dr. Rayapati Subbarao is working as an Associate Professor in Mechanical Engineering Department at NITTTR Kolkata. He obtained Ph.D from IIT Madras and M.Tech from IIT Delhi. He has more than 16+ years of experience in Teaching, Research & Development and Training. He has 80+ publications in reputed International Journals and Conferences. Apart from Teaching and R&D, he has also been involved in installation of labs, participating/organizing workshops/conferences/STTPs and preparation of course materials/lab handouts. He is a Member of Institution of Engineers (India) (MIE) and ASME. Also, he is a life member of Indian Society of Heat and Mass Transfer (ISHMT), Fluid Mechanics and Fluid Power (FMFP), Combustion Institute (India) and Indian Society of Technical Education (ISTE). He has been a reviewer of reputed journals. Also, he has been the reviewer and session chair for reputed conferences like ASME GT India, FMFP, AIMTDR and CAE. He is a member of various University level committees. He was involved in works like EU-Asialink program, ABET USA and NBA accreditations. Earlier, he had worked USA and visited Korea for presenting papers. His areas of research are Turbomachinery, CFD of Turbomachinery, Counter Rotating and Axial Flow Turbines, Turbine blade materials, Combined cycle power plants, Alternative fuels, Steam and gas turbines. He has been preparing video lectures for Gyan Darshan. He is offering MOOC courses on 'Academic and Research Report Writing' and 'Thermodynamics'.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	ICT01	NBA Accreditation and SAR Preparation	20/04/2020	24/04/2020	1
2.	PS06	How to Write Thesis and Research Paper	08/06/2020	2/06/2020	1
3.	CU36	Engineering Thermodynamics and its Applications	13/07/2020	17/07/2020	1
4.	GUW08	NBA Accreditation and SAR preparation	27/07/2020	31/07/2020	1
5.	CU53	Computational Techniques for Mechanical Engineers	24/08/2020	28/08/2020	1
6.	CU58	Power Plant Engineering	07/09/2020	11/09/2020	1
7.	BBSR20	Thermodynamics and Power Plant Engineering	16/11/2020	20/11/2020	1
8.	PS24	NBA Accreditation	07/12/2020	01/12/2020	1
9.	CU108	Refrigeration and Air Conditioning	01/02/2021	05/02/2021	1
10.	CU120	Applied Thermodynamics	08/03/2021	12/03/2021	1
11.	ICT31	NBA Accreditation and SAR Preparation	22/03/2021	26/03/2021	1

"Educating the mind without educating the heart is no education at all."

- Aristotle

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Dr. Sagarika Pal is a faculty member in the Department of Electrical Engineering and his present research area includes Sensors, Measurement, Process Control and Mechatronics. She graduated in Instrumentation Engineering and received her post graduate degree with specialization in Measurement and Instrumentation from the University of Calcutta. She was awarded doctoral degree in the area of Robotics from Jadavpur University, Kolkata.
Since joining at the Institute Dr. Pal has offered several Short Term Training Programmes (STTP) in the areas of Sensors and Transducers, Measurement, Advanced Process Control, PLC and Automation, Mechatronics, MATLAB and its Application in Engineering etc. She has published more than 40 papers in various National, International Journals and Conference Proceedings and is a life member of Institution of Engineers (India) and Forum of Scientists, Engineers and Technologists (FOSET). At present, she is involved in various Institutional activities apart from teaching.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	PS02	Skill Assessment in Laboratory and Guiding Students' Project	20/04/2020	24/04/2020	1
2.	GUW02	Applications of MATLAB in Control System, Image Processing, Fuzzy Logic and Circuit Simulation	04/05/2020	08/05/2020	1
3.	ICT02	Measurement and Control of Industrial Automation	27/04/2020	01/05/2020	1
4.	PS05	Problem Based Learning	18/05/2020	29/05/2020	2
5.	CU20	Programming and Automation using PLC	08/06/2020	12/06/2020	1
6.	PS07	Induction Training	15/06/2020	26/06/2020	2
7.	CU32	Theory, Operation and Experimentation on Sensors, Transducers & Actuators	06/07/2020	10/07/2020	1
8.	ICT09	Induction Training	20/07/2020	24/07/2020	1
9.	CU43	Programming and Applications using LABVIEW	03/08/2020	07/08/2020	1
10.	CU57	Advanced Process Control using PLC, DCS and SCADA	07/09/2020	11/09/2020	1
11.	BBSR19	Applications of MATLAB in Control System, Image Processing, Fuzzy Logic and Circuit Simulation	02/11/2020	06/11/2020	1
12.	ICT21	Power Plant Instrumentation	23/11/2020	27/11/2020	1
13.	CU83	Application of LABVIEW in Industrial Automation	30/11/2020	11/12/2020	2
14.	ICT22	Problem Based Learning	07/12/2020	11/12/2020	1
15.	CU89	Circuit Simulation using PSpice	14/12/2020	18/12/2020	1
16.	CU96	Applications of MATLAB in Control System, Image Processing, Fuzzy Logic and Circuit Simulation	04/01/2021	15/01/2021	2

"To succeed in your mission you must have single minded devotion to your goal."

- Dr. A. P. J. Abdul Kalam

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Dr. Sailendra Nath Mandal is a faculty member in the Department of Civil Engineering and his present research area includes Environmental Science & Engineering. He graduated from the University of Calcutta, India in Chemical Engineering and received his post graduate and doctoral degrees in the area of Chemical Engineering from the same University. Since joining at the Institute from University of Calcutta in 1997, Dr. Mandal has offered several STTPs in the areas of Drinking Water Quality, Ambient Air Quality, Wastewater Treatment, Solid Waste Management, Applied Chemistry, Environmental Science & Engineering etc. He has published more than 75 papers in various conferences and journals and is member IIChE, ISEC, ICCE, MIEE, FOSET.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	BBSR02	Environmental Pollution and Health	27/04/2020	01/05/2020	1
2.	CU11	Testing & Purification of Drinking Water and Health	11/05/2020	22/05/2020	2
3.	CU17	Waste Analysis and Management	01/06/2020	12/06/2020	2
4.	PS12	Laboratory Experimentation in Engineering Chemistry	20/07/2020	24/07/2020	1
5.	ICT11	Environmental Consciousness	03/08/2020	07/08/2020	1
6.	GUW11	Environmental Pollution Analysis and Health	31/08/2020	11/09/2020	2
7.	CU60	Testing and Health Benefits of Drinking Water	07/09/2020	18/09/2020	2
8.	CU73	Testing of Drinking Water and Ambient Air	02/11/2020	13/11/2020	2
9.	CU86	Testing of Bottled Water and Health	14/12/2020	18/12/2020	1
10.	CU115	Pollution Testing	22/02/2021	05/03/2021	2

"He who opens a school door, closes a prison."

- Victor Hugo

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Dr. Samir Roy is attached to the Dept. of Computer Science & Engineering of National Institute of Technical Teachers' Training and Research (NITTTR), Kolkata, as a faculty member since 2005. After graduating with Honours in Physics from the Presidency College, Kolkata, he obtained his B.Tech, M.E and Ph.D degrees, all in the field of Computer Science & Engineering. He has taught various topics of Computer Science at Graduate and Post-Graduate level at various institutes for the past 23 years. He has around fifty articles in International and National journals and conference proceedings. He has authored a text book entitled Introduction to Soft Computing: Neuro-Fuzzy and Genetic Algorithms with a co-author which has been published by Pearson. His areas of interest include Educational Informatics, Artificial Intelligence, Soft Computing, Theory of Computation. He has conducted Short Term Training Programmes on various topics including Artificial Intelligence, Formal Languages & Automata, Design and Analysis of Algorithms, Object Oriented Software Design, Unified Modeling Language, Data Structures, Computer Aided Technical Presentation and so on.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	BBSR01	Programming in C++ Methodologies	20/04/2020	24/04/2020	1
2.	CU05	Compiler Design	04/05/2020	08/05/2020	1
3.	CU23	Artificial Intelligence	15/06/2020	19/06/2020	1
4.	CU29	Data Structures	29/06/2020	03/07/2020	1
5.	CU52	Design and Analysis of Algorithms	24/08/2020	28/08/2020	1
6.	GUW12	Design and Analysis of Algorithms	21/09/2020	25/09/2020	1
7.	ICT20	Artificial Intelligence	16/11/2020	20/11/2020	1
8.	CU93	Formal Languages and Automata	04/01/2021	08/01/2021	1
9.	CU103	Introduction to Soft Computing	18/01/2021	29/01/2021	2
10.	CU116	Mathematical Foundation of Computer Science	22/02/2021	05/03/2021	2

"The highest education is that which does not merely give us information but makes our life in harmony with all existence."

- Rabindra Nath Tagore

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Dr. Samiran Mandal is a faculty member in the Department of Mechanical Engineering and his present research area includes Robotics, Machining Science, Powder Metallurgy. He graduated from the University of Burdwan, in Mechanical Engineering and had his post graduate degree in the area of Mechanical Engineering from IIT Kharagpur.
After completion of M. Tech, he worked in Telco Jamshedpur as design engineer. He did his Ph. D from IIT Kanpur, and joined NITTTR, Kolkata in 1994. Dr. Mandal has offered several STTPs in the areas of Robotics, Automobile Engineering, Welding Processes, Product Design, Fabrication Techniques, Metrology and Measurement. He has published number of papers in various National Journals and Proceedings and was a member of IEEE. Beside this, he is also a member of the external academic body of IIEST.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	CU02	Development of Mechanical Engineering Experiments and Laboratory Instruction Sheets	20/04/2020	24/04/2020	1
2.	CU06	Introduction to Robotics	04/05/2020	08/05/2020	1
3.	CU22	Theory & Practice –Turning, Milling and Drilling	08/06/2020	12/06/2020	1
4.	ICT06	Instructional Planning	15/06/2020	19/06/2020	1
5.	CU34	Automobile Engineering	06/07/2020	10/07/2020	1
6.	BBSR10	Instructional Planning	27/07/2020	31/07/2020	1
7.	CU50	Product Design	17/08/2020	21/08/2020	1
8.	CU72	Mechanical Measurements and Control	02/11/2020	06/11/2020	1
9.	GUW18	Concept Mapping in Teaching Learning	28/12/2020	01/01/2021	1
10.	CU102	Production and Operations Management	18/01/2021	22/01/2021	1

"Education has for its object the formation of character."

- Herbert Spencer

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Dr. Santanu Bhanja is a faculty member in the Department of Civil Engineering and his present research area includes High Performance Concrete, Reinforced Concrete Design, Earthquake Resistant Design, Software Application in Structural Engineering etc. He graduated with Honours from Jadavpur University, completed M Tech from IIT, Kharagpur and Ph.D from Jadavpur University in the field of Structural Engineering.
He served the industry for seven years both in the private and Government sectors before joining the Civil Engineering Department of the Bengal Engineering College (Deemed University) in 1996 where he served about a decade before taking up the present assignment. He has guided several students at Master Degree level and one student has been awarded Ph.D degree in 2013 under his guidance. He has successfully completed a Research Project sponsored by the Fly Ash Unit of DST, Govt. of India in 2012. He has published number of papers in reputed Journals like Cement and Concrete Research, ACI Materials Journal, Indian Concrete Journal, Journal of the Institution of Engineers etc. and contributed a number of technical papers in National and International Seminars and Conferences. He has chaired technical sessions in International Conferences. He as acted as a key technical speakers in a number of Seminars/ Engineers' Meets/Skill and Technology transfer programmes organized by reputed cement manufacturers and in an awareness programme on Earthquakes aired live by DD Bangla.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	BBSR06	Structural Analysis and Design with new Generation Software	08/06/2020	12/06/2020	
2.	CU25	Philosophy of RCC Design as per IS: 456-2000	22/06/2020	26/06/2020	1
3.	CU51	Repair and Rehabilitation of RCC Structures with special emphasis on Earthquakes	24/08/2020	28/08/2020	1
4.	ICT17	RCC Design – From Prescriptive as per Codes of Practice to Performance Based	21/09/2020	25/09/2020	1
5.	CU68	Modelling, Analysis and Design of Buildings with ETABS	12/10/2020	16/10/2020	1
6.	CU71	Design of Earthquake Resistant RC Buildings with an Introduction to Shake Table	02/11/2020	06/11/2020	1
7.	BBSR23	RCC Design – Prescriptive Design as per IS:456-2000, IS:13920-2016 and beyond with application of Software	14/12/2020	18/12/2020	1
8.	CU90	Application of Total Station with Introduction to DGPS in present day Surveying	28/12/2020	01/01/2021	1
9.	CU100	Design of Concrete Mix as per IS:10262-2019	18/01/2021	22/01/2021	1
10.	CU109	Modelling, Analysis and Design of structures using latest version of STAAD	08/02/2021	12/02/2021	1

"All knowledge that the world has ever received comes from the mind, the infinite library of the universe is in our own mind."

- Swami Vivekananda

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Mrs. Sheela Yadav Rai is a faculty member in the Department of Electrical Engineering, NITTTR Kolkata. She did her graduation Electrical & Electronics Engineering from Andhra University, Visakhapatnam and Master of Engineering in Power System from Birla Institute of Technology, Mesra, Ranchi. She has published papers in seminars/conferences. Her areas of interest are Rural development, Non-conventional Energy, Power System & Power Electronics.
She has taken active participation in developing various training packages on 'Textile, Clothing & Footwear' during 2003-2005 under National Vocational Education Qualification and Certification Framework (NVEQCF) programme of MHRD and various curricula on 'Organized Retail Sector' during 2009-2011 under National Skill Development Mission (NSDM) of MHRD, Government of India.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	GUW01	Estimating & Costing of Non-Conventional Energies	27/04/2020	01/05/2020	1
2.	CU26	Renewable Energy Sources and Emerging Technologies	22/06/2020	26/06/2020	1
3.	CU33	Power Generation from Energy Resources	06/07/2020	10/07/2020	1
4.	CU48	Estimating & Costing of Non-Conventional Energies	17/08/2020	21/08/2020	1
5.	BBSR15	Renewable Energy Sources and Emerging Technologies	14/09/2020	18/09/2020	1
6.	PS20	Community Development Through Technical Institutions	09/11/2020	13/11/2020	1
7.	CU99	Power System Protection	11/01/2021	15/01/2021	1
8.	CU107	Transmission Line Parameters	01/02/2021	05/02/2021	1
9.	ICT28	Renewable Energy Sources and Emerging Technologies	15/02/2021	19/02/2021	1
10.	CU117	Transmission Lines Faults	01/03/2021	05/03/2021	1

"A teacher who is attempting to teach without inspiring the pupil is hammering on cold iron."

- Horace Mann

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Dr. Soumitra Kumar Mandal is a faculty member in the Department of Electrical Engineering, National Institute of Technical Teachers' Training and Research (NITTTR), Kolkata since 2004. He obtained B.E. degree in Electrical Engineering from Bengal Engineering College, Shibpur, Calcutta University and M.Tech in Electrical Engineering with specialization in Power Electronics from Institute of Technology, Banaras Hindu University, Varanasi. He obtained Ph.D degree from Punjab University, Chandigarh. He has taught various subjects of Electrical Engineering at Undergraduate and Post Graduate level for the past 20 years. He has published about fifty papers in International and National Journals and Conferences. His research interests are in the field of Computer Control Drives, Microprocessor and Microcontroller based system design, embedded system design and Neuro-fuzzy computing.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	CU07	Refresher course on Analog & Digital Electronics	04/05/2020	15/05/2020	2
2.	CU18	LABVIEW & MATLAB Applications in Electrical & Electronics Engineering	01/06/2020	12/06/2020	2
3.	CU66	Refresher course on Microprocessors and Microcontrollers	21/09/2020	02/10/2020	2
4.	CU70	Solar PV System: Operation and Control	12/10/2020	16/10/2020	1
5.	CU77	Laboratory Instructions in Electrical Machine & Power System Lab	16/11/2020	20/11/2020	1
6.	BBSR21	Laboratory Instructions in Electrical and Electronics Engineering	23/11/2020	27/11/2020	1
7.	CU84	Power Electronics in Power System	07/12/2020	11/12/2020	1
8.	CU91	Lab Experiment in Power Electronics and Drive	28/12/2020	01/01/2021	1
9.	GUW19	Power Electronics in Power System	11/01/2021	15/01/2021	1
10.	CU101	Solar PV System: Operation & Control	18/01/2021	22/01/2021	1
11.	CU111	PLC and LABVIEW Applications in Engineering	08/02/2021	19/02/2021	2
12.	CU125	PCB Design	22/03/2021	26/03/2021	1

"You have to dream before your dreams come true."

- Dr. A. P. J. Abdul Kalam

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Dr. Subrata Chattopadhyay is a faculty member in Electrical Engineering Department and In – Charge of Extension Center, Bhubaneswar. He received his Ph. D (Tech) in Instrumentation Engineering from the University of Calcutta, India in 2006, preceded by M. Tech [Instrumentation], B. Tech. [Electrical] and B. Sc in Physics, in 1993, 1991 and 1987 respectively.

He served as a Deputy Manager [Projects & Maintenance] in Electrical and Instrumentation Engineering of Chemical and Manufacturing Industries in India and then joined as an Assistant Professor in Electrical Engineering Department at this Institute in 2003. At present he is working as a Professor in Electrical Engineering and In-charge of NITTTR Kolkata Extension Centre, Bhubaneshwar. He introduced, as head of Electrical Engineering Department, a new Post Graduate Programme [M. Tech. in Mechatronics Engineering], the first of its kind in Eastern India at NITTTR Kolkata, with required development of the Department to accommodate the same. He is highly involved in Teaching and Research and his present investigation is on innovation of noble techniques of measurement & control based on Sensor and Transducer development, Process Automation, PLC and Distributed Control System, Mechatronics, Robotics etc. He has nearly 70 publications in various International and National journals and conferences to his name.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	ICT02	Measurement and Control of Industrial Automation	27/04/2020	01/05/2020	1
2.	CU09	Medical Electronics	11/05/2020	15/05/2020	1
3.	BBSR04	Utilization of Instructional Media and CAI in Effective Teaching	18/05/2020	22/05/2020	1
4.	CU20	Programming and Automation using PLC	08/06/2020	12/06/2020	1
5.	CU32	Theory, Operation and Experimentation on Sensors, Transducers & Actuators	06/07/2020	10/07/2020	1
6.	ICT09	Induction Training	20/07/2020	24/07/2020	1
7.	CU49	Introduction to Optical Fibre and Its Application	17/08/2020	21/08/2020	1
8.	CU57	Advanced Process Control using PLC, DCS and SCADA	07/09/2020	11/09/2020	1
9.	BBSR16	Medical Instrumentation	21/09/2020	25/09/2020	1
10.	ICT21	Power Plant Instrumentation	23/11/2020	27/11/2020	1
11.	CU83	Application of LABVIEW in Industrial Automation	30/11/2020	11/12/2020	2
12.	BBSR24	Theory, Operation and Applications of Transducers & Actuators in Industry	28/12/2020	01/01/2021	1
13.	GUW20	Power Plant Instrumentation	25/01/2021	29/01/2021	1
14.	CU119	Electrical Measurement and Instrumentation	08/03/2021	12/03/2021	1
15.	BBSR30	Power Plant Instrumentation	15/03/2021	19/03/2021	1

"If you can't explain it simply, you don't understand it well enough."

- Albert Einstein

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Dr. Subrata Mondal is an Associate Professor at the National Institute of Technical Teachers Training & Research (NITTTR), Salt Lake City, Kolkata, West Bengal, India. Prior to move NITTTR, Kolkata, Dr. Mondal has worked at The Petroleum Institute, Abu Dhabi, United Arab Emirates. Earlier, he was employed with various universities such as National University of Singapore, Singapore; Colorado State University, USA; The University of Queensland, Australia. He got his doctoral degree from The Hong Kong Polytechnic University, Hong Kong SAR. Dr. Subrata Mondal has highly interdisciplinary research and teaching interests in biomaterial, nanotechnology, polymer composite, smart polymeric materials, functional textiles, laboratory safety management, and wastewater treatment.
As of now he has 48 SCI journal publications, 2 USA patents, 6 book chapters and 18 conferences with citation over 2800, h-index 22, i-10 index of 30 (Source: Google Scholar). Total SCI impact point of his all publications is over 120. Currently, Dr. Mondal is an editorial board member of few journals. So far, he has reviewed over 200 manuscripts from over 80 different referred journals. Based on his research performances, he has received several international awards. Dr. Mondal's researches have been featured in Australian Broadcasting Corporation (ABC) television channel, Queensland Business Review and Australia's Anthill (Australia's largest online communities for entrepreneurs). Dr. Mondal has also reviewed research proposals from USA-Israel BARD fund (www.bard-isus.com) and FONDECYT-CHILE (Chile's National Research Grant), Republic of Chile. Dr. Mondal was one of the committee member for AICTE model curriculum 2019 in Chemical Engineering discipline.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	BBSR05	Induction Training	01/06/2020	05/06/2020	1
2.	MGT02	Laboratory Safety Management	15/06/2020	26/06/2020	2
3.	PS09	Development of Laboratory Instruction and Manual	06/07/2020	10/07/2020	1
4.	ICT08	Laboratory Safety Management	13/07/2020	17/07/2020	1
5.	CU42	Fundamental and Applications of Nanomaterials	27/07/2020	07/08/2020	2
6.	CU55	Polymer Composites and Nanocomposites	31/08/2020	04/09/2020	1
7.	GUW14	Fundamental and Applications of Nanomaterials	02/11/2020	06/11/2020	1
8.	CU87	Advanced Materials Science and Engineering	14/12/2020	18/12/2020	1
9.	PS28	Entrepreneurship Development	04/01/2021	08/01/2021	1
10.	ICT30	Development of Laboratory Instruction and Manual	15/03/2021	19/03/2021	1

"Live as if you were to die tomorrow, Learn as if you were to live forever."

- Mahatma Gandhi

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Shri Sukanta Kumar Naskar is a faculty in the department of Education and Management of National Institute of Technical Teachers Training and Research (NITTTR)-Kolkata since 2008. He joined NITTTR-Kolkata in the year of 1997 as faculty member of Educational Planning and Management. He did his B.Tech. with honours from Jadavpur University and M.Tech from IIT-Kharagpur. He taught subjects related to Production Engineering and Mechanical Engineering at undergraduate and post graduate levels. He is having experience in handling various education project related to Technical Education System including World Bank Assisted Technician Education (Tech. Ed.) Project. He has around twenty publications in national and international journals and conference proceedings. He also contributed as presenter in developing five Educational Video films. His areas of interest include Total Quality Management, Project Management, Human Resource Management, Industrial Management and has conducted short term training programmes in the related fields.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	PS03	HRD through Training and Development	27/04/2020	01/05/2020	1
2.	PS04	Institutional Development	11/05/2020	15/05/2020	1
3.	BBSR08	Induction Training	29/06/2020	10/07/2020	2
4.	GUW07	Approaches in Designing Curriculum	13/07/2020	17/07/2020	1
5.	MGT04	Essentials of Strategic Management	20/07/2020	24/07/2020	1
6.	PS15	Problem Solving and Decision Making	17/08/2020	21/08/2020	1
7.	BBSR14	Essentials of Strategic Management	07/09/2020	11/09/2020	1
8.	MGT05	Essentials of HRM	21/09/2020	25/09/2020	1
9.	ICT19	Institutional Development	02/11/2020	06/11/2020	1
10.	BBSR22	Essentials of HRM	07/12/2020	11/12/2020	1
11.	PS27	Induction Training	28/12/2020	01/01/2021	1

"The function of education is to teach one to think intensively and to think critically, intelligence plus character – that is the goal of true education."

- Martin Luther King, Jr.

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Dr. Uday Chand Kumar is a faculty member in the department of Civil Engineering and his area of Interest is in Rural Development. He graduated from the University of North Bengal in Civil Engineering and obtained his post graduate degree in the area of Civil Engineering from M.I.T. Muzaffarpur.

He worked in Ghosh & Ghosh as a Consultancy Officer, Architectural Design Cell, Cuttack and Bhattacharya & Associate then R.K. Mission Shilpamandir, Belur as Lecturer. He did his Ph. D from ISM, Dhanbad and he also completed Master Degree in Science (Ecology & Environment), Master of Arts (Rural Development). Dr. Kumar joined NITTTR, Kolkata in 1994.

Dr. U. C. Kumar has offered several STTPs in the areas of Rural Development, Disaster Management, Rural Water Supply and Sanitation, West Management etc., He has published a number of papers in various National & International Journals.

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	CU08	Civil Engineering Laboratory Practice (Brick, Cement, Aggregates, Concrete including demonstration of NTD and SDT)	11/05/2020	15/05/2020	1
2.	CU27	Laboratory Testing on Soil and Preparation of Report	22/06/2020	26/06/2020	1
3.	BBSR12	Ecology and Environmental Studies	10/08/2020	14/08/2020	1
4.	ICT16	An Introductory course on Ecology and Environmental Studies	14/09/2020	18/09/2020	1
5.	PS17	Office Management (Using Software)	21/09/2020	25/09/2020	1
6.	CU79	Design of Steel Structure	23/11/2020	27/11/2020	1
7.	PS23	Role of Technical Institution in implementing Governmental Scheme e.g. CDTP, PWD, Community College	30/11/2020	04/12/2020	1
8.	CU97	Surveying (Chain, Plane Table, Compass, Levelling, Contouring, Layout of Building)	11/01/2021	15/01/2021	1
9.	GUW22	Ecology and Environmental Studies	15/02/2021	19/02/2021	1
10.	MGT07	Awareness programme on Occupational Health and Safety	08/03/2021	12/03/2021	1

"Education is not the learning of facts, but the training of the mind to think."

- Albert Einstein

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Dr. Urmila Kar is a faculty member in the department of Education and Management of NITTTR, Kolkata since 2008 and has more than 25 years of teaching experience at Graduate and Post-Graduate levels. Her present research area includes Nonlinear System Dynamics and Control, Fuzzy Logic Control, Engineering Education, Competency Based Curriculum Design, Design and Implementation of Outcome Based Curriculum. She obtained her BE degree in Electrical Engineering from Regional Engineering College, Silchar and MEE degree with specialization in Control System from Jadavpur University. She obtained her doctoral degree in the area of Fuzzy Logic Control from Jadavpur University, Kolkata.

Since joining at the Institute, Dr. Kar has offered several Short Term Training Programmes (STTP) in the areas of Electric Circuits, Linear and Nonlinear Control, Fuzzy Logic Control, MATLAB and its Application in Engineering, Exposure to Scilab, Design and Implementation of Technical Curriculum, Competency Based Curriculum Design, Design and Implementation of Outcome Based Curriculum, Effective Teaching and Students' performance Evaluation etc. She has published more than 20 papers in various National, International Journals and Conference Proceedings and is a member of the Institution of Electrical Engineers (IEE) and life member of Indian Society of Technical Education (ISTE) and All India Association for Educational Research (AIAER).

List of Short-Term Training Programme

SL. No	Prog. Code	Programme Title	Date		Duration
			From	To	
1.	PS01	Outcome Based Accreditation and NBA	20/04/2020	24/04/2020	1
2.	GUW03	Outcome Based Accreditation and NBA	18/05/2020	22/05/2020	1
3.	CU24	Modeling and Analysis of Linear Control Systems	15/06/2020	19/06/2020	1
4.	PS13	Induction Training (Phase I & Phase II)	20/07/2020	31/07/2020	2
5.	ICT13	Designing Teaching under Outcome Based Education	17/08/2020	21/08/2020	1
6.	PS16	Active Learning under Engineering Education	14/09/2020	25/09/2020	2
7.	CU80	Modeling and Analysis of Nonlinear Control Systems	23/11/2020	27/11/2020	1
8.	PS25	Research Methodology	07/12/2020	18/12/2020	2
9.	BBSR27	Outcome Based Accreditation and NBA	01/02/2021	05/02/2021	1
10.	CU121	Modeling and Analysis of Electrical Circuits and Networks	15/03/2021	19/03/2021	1

"The Principal goal of education is to create individuals who are capable of doing new things, not simply of repeating what other generations have done."

- Jean Piaget

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