PROGRAMME CALENDAR

April 2012 – March 2013

Pathfinder for Excellence in Technical Education

National Institute of Technical Teachers' Training & Research, Kolkata

(Established by the MHRD, Govt. of India)

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STTP SCHEDULE 2012-2013

A. NATIONAL LEVEL SHORT TERM TRAINING PROGRAMMES

The schedule of Short Term Training Programmes (STTP) to be conducted by NITTTR, Kolkata during the year 2012 – 2013 is given below. The programmes have been proposed on the basis of clientele need obtained through a Need Analysis Survey.

STTP SCHEDULE 2012 - 2013 **VENUE: NITTTR, KOLKATA**

CIVIL ENGINEERING (CE)					
Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
1.	Teaching Sanitary Engineering (only Polytechnic teachers from Civil Engg. Deptt., with less than 5 years teaching experience)	Prof. M. Das	09.04.2012	13.04.2012	• Prepare concept map by content analysis for teaching sanitary engineering • Prepare classroom instructional plan for various topics in sanitary engineering based on experiential strategy • Teach the topics in sanitary engineering using experiential teaching strategy • Design sanitary engineering laboratory experiments using Discovery learning style.
2.	Soil Structure Interaction	Dr. J. J. Mandal	16.04.2012	20.04.2012	• Acquire knowledge on soil structure interaction and its importance • Understand the basic considerations and differences with conventional method of design of foundation • Application of SSI in design of different types of foundation systems.
3.	Teaching Water Supply Engineering (only Polytechnic teachers from Civil Engg. Deptt., with less than 5 years teaching experience)	Prof. M. Das	07.05.2012	11.05.2012	• Prepare concept map by content analysis for teaching water supply engineering • Prepare classroom instructional plan for topics in water supply engineering based on experiential strategy • Teach the topics in water supply engineering using experiential teaching strategy • Design water supply engineering laboratory experiments using Discovery learning style.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
4.	Geotechnical Investigation and Testing	Dr. J. J. Mandal	21.05.2012 (2 weeks)	01.06.2012	• Acquire fundamental knowledge on geotechnical investigation and testing • Develop skill to perform laboratory and field tests as required in course curriculum • Develop skill in conducting different laboratory testing procedures related to foundation design.
5.	Limit State Design of Steel Structure Part – 1	Mrs. Mithu Dey	04.06.2012	08.06.2012	• Get an overview of design of steel structures with special emphasis on plastic design as per IS:800 – 2007.
6.	Comprehensive Course on Structural Analysis & Design using Software	Dr. S. Bhanja	11.06.2012 (2 weeks)	22.06.2012	• Understand the role of software in structural analysis and design • Know the basic features of a standard software • Operate a standard software • Develop the input file for analysis and design • Interpret the results • Analyze and design simple civil engineering structures
7.	Laboratory Test on Concrete Material	Mrs. Mithu Dey	25.06.2012	29.06.2012	• Develop skill and knowledge in the fundamentals involved in testing of various ingredients of concrete and concrete both in the fresh and hardened state • Use of NDT equipments shall also be demonstrated to the participants.
8.	Analysis and Design of Shallow Foundations	Dr. J. J. Mandal	09.07.2012	13.07.2012	• Acquire knowledge on settlement and bearing capacity analysis of shallow foundations • Acquire knowledge on structural design aspects of shallow foundations as per the codal recommendation.
9.	Health Monitoring of RCC Structures	Dr. S. Bhanja	16.07.2012	20.07.2012	• Assess the health condition of an existing structure • Diagnose the problem and find out the cause leading to the distresses • Prescribe suitable measures to eliminate/mitigate the cause of the identified problem • Understand the basic steps that should be adopted for repor and retrofitting of distressed RCC structures • Write a technical report in a systematic form.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
10.	Teaching Environmental Pollution (only Polytechnic teachers from Civil Engg. Deptt., with less than 5 years teaching experience)	Prof. M. Das	23.07.2012	27.07.2012	• Prepare concept map by content analysis for teaching environmental pollution • Prepare classroom instructional plan for topics in environmental pollution based on experiential strategy • Teach the topics in environmental pollution through experiential teaching strategy • Design environmental pollution laboratory experiments using Discovery learning style.
11.	Civil Engineering Drawing using Software	Mrs. Mithu Dey	30.07.2012	03.08.2012	• Acquaint the participants with AutoCAD software and its various applications in the field of engineering.
12.	Computer Aided Structural Design	Dr. S. Bhanja	03.09.2012	07.09.2012	• Understand the role of software in structural analysis and design • Explain the basic features of a number of standard software • Develop the input file for analysis and design using different software • Interpret the results • Analyze and design preliminary of simple civil engineering structures.
13.	Teaching Plane Surveying (only Polytechnic teachers from Civil Engg. Deptt., with less than 5 years teaching experience)	Prof. M. Das	10.09.2012	14.09.2012	• Prepare concept map by content analysis for teaching 'plane surveying' • Prepare classroom instructional plan for topics in plane surveying based on experiential strategy • Teach the topics in plane surveying using experiential teaching strategy • Design plane surveying experiments using Discovery learning style.
14.	Advanced Structural Analysis with Introduction to Structural Dynamics	Mrs. Mithu Dey	24.09.2012	28.09.2012	• Get in depth idea on structural analysis methodologies with emphasis on matrix method and introduction to structural dynamics.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
15.	Teaching Irrigation Engineering (only Polytechnic teachers from Civil Engg. Deptt., with less than 5 years teaching experience)	Prof. M. Das	05.11.2012	09.11.2012	• Prepare concept map by content analysis for teaching irrigation engineering • Prepare classroom instructional plan for topics in irrigation engineering based on experiential strategy • Teach the topics in irrigation engineering using experiential teaching strategy • Design irrigation engineering laboratory experiments using Discovery learning style.
16.	Ground Improvement and Soil Stabilisation Techniques	Dr. J. J. Mandal	19.11.2012	23.11.2012	• Understand the importance and application of different ground improvement and soil stabilization techniques in the context of present day infrastructure development.
17.	Concrete-Evolution from Conventional to High Performance	Dr. S. Bhanja	3.12.2012	07.12.2012	• Get an overview about high performance concrete ingredients used and basic properties • Understand the types and uses of admixtures in concrete • Describe the procedure for use of admixtures in concrete • Select suitable ingredients for concrete • Design concrete mixes for normal and high performance concretes.
18.	Surveying by Total Station	Dr. J. J. Mandal & Dr. S. Bhanja	17.12.2012	21.12.2012	• Introduced to Finite Element Technique • Understand the processes involved in designing various structural components by finite element technique • Introduced to standard FEM package for analysis and design of structures.
19.	Soil Dynamics and Earthquake Engineering	Dr. J. J. Mandal	07.01.2013	11.01.2013	• Acquire the fundamentals knowledge of soil dynamics and earthquake engineering • Understand the principles on which dynamically loaded foundations are designed.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
20.	Earthquake Resistant Design of RCC Buildings	Dr. S. Bhanja	04.02.2013	08.02.2013	• Understand the basic aspects of structural dynamics • Appreciate the underlying principles of earthquake resistant design of RC buildings • Suggest measures for minimization of damage in earthquakes • Detail reinforcement in concrete to improve its ductility • Familiar with the relevant clauses of IS:1893, 2002, IS:1893-1984, IS:4326 and IS:13920.
21.	Laboratory Test on Highway Material	Mrs. Mithu Dey	04.03.2013	08.03.2013	• Acquire skill and technical know how to perform and demonstrate different laboratory tests related to construction of highways.
22.	Limit State Design of Steel Structure Part II	Mrs. Mithu Dey	18.03.2013	22.03.2013	• Understand the behaviour and design of the structural element and their connection in accordance with the latest code of practice IS:800 – 2007.
COMMUNITY DEVELOPMENT & RURAL TECHNOLOGY (CDRT)					
23.	Formulation of Action Plan & Financial Management for MHRD Sponsored CDTP Scheme (for the State of Bihar)	Dr. U. C. Kumar & Smt. Sheela Yadav Rai	16.04.2012	20.04.2012	• Understand the scope and activities of CDTP scheme • Prepare Action Plan of CDTP Scheme • Disseminate Appropriate Technology • Maintain accounts of CDTP Scheme • Involve NGOs in implementing CDTP Scheme. • Liaise with PRI's DRDC, KVK etc.
24.	Formulation of Action Plan & Financial Management for MHRD Sponsored CDTP Scheme (for the State of Jharkhand)	Smt. Sheela Yadav Rai	23.04.2012	27.04.2012	• Understand the scope and activities of CDTP scheme • Prepare Action Plan of CDTP Scheme • Disseminate Appropriate Technology • Maintain accounts of CDTP Scheme • Involve NGOs in implementing CDTP Scheme. • Liaise with PRI's DRDC, KVK etc.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
25.	Formulation of Action Plan & Financial Management for MHRD Sponsored CDTP Scheme (for the State of West Bengal: Phase I) A & N Islands, Tripura, Meghalaya, Mizoram & Nagaland	Dr. U. C. Kumar & Smt. Sheela Yadav Rai	30.04.2012	04.05.2012	• Understand the scope and activities of CDTP scheme • Prepare Action Plan of CDTP Scheme • Disseminate Appropriate Technology • Maintain accounts of CDTP Scheme • Involve NGOs in implementing CDTP Scheme. • Liaise with PRI's DRDC, KVK etc.
26.	Formulation of Action Plan & Financial Management for MHRD Sponsored CDTP Scheme (for the State of West Bengal: Phase II)	Dr. U. C. Kumar & Smt. Sheela Yadav Rai	07.05.2012	11.05.2012	• Understand the scope and activities of CDTP scheme • Prepare Action Plan of CDTP Scheme • Disseminate Appropriate Technology • Maintain accounts of CDTP Scheme • Involve NGOs in implementing CDTP Scheme. • Liaise with PRI's DRDC, KVK etc.
27.	Formulation of Action Plan & Financial Management for MHRD Sponsored PWD Scheme	Dr. U. C. Kumar & Smt. Sheela Yadav Rai	21.05.2012	25.05.2012	• Understand the scope and activities of PWD scheme • Prepare Action Plan of PWD Scheme • Maintain accounts of PWD Scheme • Collaborate with other organization for effective implementation of the scheme
28.	Application of Non-Conventional Energy in Rural Areas	Smt. Sheela Yadav Rai	23.07.2012	27.07.2012	• Understand various types of Non-conventional Energies Sources • Understand the scope of Solar Energy, Solar Thermal Conversion, Solar Collector, Wind Energy • Know about Hybrid Energy System • Know about Energy from Biomass • Understand the benefit using Non-conventional Energies over Conventional Energizers Sources • Application of Non-conventional Energies through various agencies.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
29.	Industrial Waste Management	Dr. S. Chakraborty, Dr. U. C. Kumar & Dr. S. N. Mandal	06.08.2012 (2 weeks)	17.08.2012	• Appreciate the importance of waste management • Describe the types of wastes generated in the society • Describe the characteristics of all types of wastes • Identify hazardous wastes and nature of hazards • Describe some control technique • Identify waste management steps.
30.	Community Development through Technical Institutes	Smt. Sheela Yadav Rai	05.11.2012	09.11.2012	• Know and create awareness about the various Community Development Programmes • Understand the Schemes of the Government • Identify the need • Conduct the need Analysis Survey • Form self help group
31.	Quality Improvement in Activities Related to Implementation of CDTP Scheme	Dr. S. Chakraborty, Dr. U. C. Kumar & Dr. S. N. Mandal	04.02.2013	08.02.2013	• Identify the quality parameters in the entire range of CDTP activities • Develop a precise plan of action for quality improvement in CDTP scheme implementation.
32.	Power System for Industrial Plants	Smt. Sheela Yadav Rai	11.02.2013	15.02.2013	• Understand Power System overview • Understand power sector reform Retrospect / Prospect • Know-how Electricity forecasting • Know Power system Instrumentation.
33.	Concepts of TVET Programmes for Community Level Technologies	Smt. Sheela Yadav Rai	11.03.2013	15.03.2013	• Know the background TVET programme • Understand the background of School Dropouts and their motivation • Identify the need • Conduct the Need Analysis Survey • Know how expertise on pilot project (Popular Trades) • Low cost Technologies on Housing, Rural Water Supply & Sanitation Rain Water harvesting etc.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
COMPUTER SCIENCE & ENGINEERING (CSE)					
34.	Database Design & Practice	Dr. R. Dasgupta	09.04.2012	13.04.2012	• Get exposure in database design theory • Design and develop small database application.
35.	Networking Principles	Shri R. Chatterjee	07.05.2012	11.05.2012	• Set-up up of the LAN • Set-up IP Network with Classless addressing • Configure network equipment such as router • Gain basic knowledge of Network security framework.
36.	Topics on Data Structure & Algorithms	Dr. S. Roy	21.05.2012 (2 weeks)	01.06.2012	• Explain the principles of data structure & algorithms • Apply various data structures to solve computational problems • Design algorithms to solve real life computational problems
37.	IP Networking	Shri R. Chatterjee	04.06.2012 (2 weeks)	15.06.2012	• Have basic knowledge of Internet Architecture, Regional Internet Registries and Autonomous Systems • Knowledge of various protocols used in the Internet • Have basic concept of switching (both L2 and L3) • Configure router and other networking devices • Virtual Private Network • Have Basic knowledge of Security Issues in IP based Infrastructures and Mobile IP based systems.
38.	Software Engineering: Quality & Design Issues	Dr. R. Dasgupta & Dr. S. Roy	18.06.2012 (2 weeks)	29.06.2012	• Explain the quality & design aspects of software engineering in classroom situation • Design software by incorporating quality aspects • Visualize, specify, construct, document software, specifically object oriented software through modeling language.
39.	Theory of Internet & Web Page Design	Dr. R. Dasgupta	02.07.2012	06.07.2012	• Acquainted with Internet System • Exposure in TCP/IP protocols • Design & develop web-page(s)
40.	Elements of Artificial Intelligence	Dr. S. Roy	06.08.2012	10.08.2012	• Explain the concepts of artificial intelligence • Apply intelligent techniques to solve complex real life problems.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
41.	Mobile & Personal Area Networking (PAN)	Shri R. Chatterjee	21.08.2012	25.08.2012	• Setting-up of the PAN • Configuration of wifi systems with security parameters • Have concept and architecture of Mobile OS (incl. Android, Chrome OS etc.) • Have Basic knowledge of Mobile Network security.
42.	Office Management & Internet	Shri R. Chatterjee	03.09.2012 (2 weeks)	14.09.2012	• Prepare Office document and presentation using office tools • Use Internet for searching and browsing operation • Communicate through Internet using email.
43.	Elementary Soft Computing Techniques	Dr. S. Roy	17.09.2012	21.09.2012	• Explain the principles & techniques of soft computing • Apply soft computing techniques to solve real life computational problems.
44.	Theory of Formal Languages & Automata	Dr. S. Roy	29.10.2012	02.11.2012	• Explain the concepts of format languages & automate • Apply principles of formal languages & automata to solve computational problems.
45.	Introduction to Linux	Shri R. Chatterjee	05.11.2012	09.11.2012	• Run Linux commands in the CUI environments • Run basic Unix programs • Configure and Manage Unix proxy, Firewall and other network application.
46.	Computer Aided Technical Presentation	Dr. S. Roy	07.01.2013	11.01.2013	• Design presentation materials • Develop presentation materials • Deliver presentation materials with the help of computers.
47.	Design of Business Application using Software Engineering Approach	Dr. R. Dasgupta	21.01.2013 (2 weeks)	01.02.2013	• Exposure in various issues related to software engineering • Exposure in business application development process • Design small business application.
48.	Multimedia Application & E.learning	Shri R. Chatterjee	04.02.2013	08.02.2013	• Basic knowledge about various component of Multimedia • Run various multimedia packages • Concept of E-learning, its application and different kinds of learning methodologies.
49.	Intelligent Search Techniques	Dr. S. Roy	18.02.2013	22.02.2013	• Explain various intelligent search techniques in the classroom • Design computational systems employing soft computing techniques for complex computational problems.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
50.	Programming in HTML & XML	Dr. R. Dasgupta	04.03.2013	08.03.2013	• Get exposure in Internet use • Develop programmes using HTML & XML.
51.	Introduction to DBMS	Dr. R. Dasgupta	18.03.2013 (2 weeks)	29.03.2013	• Acquainted with Database Management System • Exposed in database design theory • Design and develop database application.
CURRICULUM DEVELOPMENT CENTRE (CDC)					
52.	Materials Management & Purchase Procedure	Shri S. K. Naskar & Prof.S.K.Bhattacharyya	07.05.2012	11.05.2012	• Manage effectively and efficiently a small store on manual basis
53.	Application of Mathematics in Electrical Engineering Curriculum	Dr. U. Kar	14.05.2012	18.05.2012	• Develop concepts of Curriculum Analysis • Understand the concepts of components of Technical Curriculum • Identify components of Electrical Engineering Curriculum • Understand the role of Mathematics in Electrical Engineering Curriculum
54.	Human Resource Management	Shri S. K. Naskar	25.06.2012	29.06.2012	• Understand the concept and scope of HRM • Apply these concepts in field of work
55.	Innovative Approaches in Curriculum Design	Dr. U. Kar & Shri S. K. Naskar	16.07.2012	20.07.2012	• Develop concepts of curriculum development • Understand various approaches of curriculum design • Identify implementation issues in innovative curriculum.
56.	Project Planning & Finance	Shri S. K. Naskar & Prof.S.K.Bhattacharyya	01.10.2012	05.10.2012	• Understand the concept of Project Management • Apply the concept with practice.
57.	Application of MATLAB in Electrical Engineering	Dr. U. Kar	17.12.2012 (2 weeks)	28.12.2012	• Develop fundamental of MATLAB • Understand the use of MATLAB in teaching Electrical Engineering • Analyze electrical circuits using MATLAB • Model and simulate electrical systems using MATLAB / SIMULINK.
58.	Management Principles for Technical Teachers	Shri S. K. Naskar	18.02.2013	22.02.2013	• Understand apply the management principles applicable to Technical Institutions.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
59.	Design of Question Bank for Effective Implementation of Curriculum	Dr. U. Kar	11.03.2013	15.03.2013	• Understand the need for question bank • Develop instructional objectives • Prepare specification table • Identify types of question • Construct test items • Analyze test items.
EDUCATION					
60.	Psychology for Teachers	Dr. H. Hussain	09.04.2012	13.04.2012	• Identify the individual differences among students • Match teaching suitably with the learning style of students • Create a conducive learning environment
61.	Systemic Research in Technical Education	Dr. R. Roy	16.04.2012 (2 weeks)	27.04.2012	• Comprehending the concept and purpose of systematic research in technical education • Identifying the types of research • Develop research proposal on the specified topic of research in Engineering Education • Carry out minor research study in their work-situation • Recognizing Teachers' potential to canyon research • Apply statistical techniques to analyze data of systemic research.
62.	Orientation Programme (for newly Recruited Teachers)	Dr. R. Roy	14.05.2012 (2 weeks)	25.05.2012	• Oriented towards teaching • Identify components of teaching-learning process • Select appropriate instructional strategy • Demonstrate teaching skill • Adapt appropriate classroom management style • Develop instructional objectives • Prepare instructional plan • Design suitable evaluation tools • Guide pupils in their career path.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
63.	Understanding Educational Research	Dr. R. Roy	04.06.2012	08.06.2012	• Familiar with modern methodology of educational research • Implement methodologies in action research projects • Explore solutions of problems arising in the educational settings, through research.
64.	Effective Teaching	Dr. R. Srinivasan	11.06.2012	15.06.2012	• Understand principles of learning use appropriate Teaching techniques • Recognize individual difference among learners • Relate classroom teaching with industrial scenario.
65.	Team building and Leadership for Academic Institutions	Dr. H. Hussain	18.06.2012 (2 weeks)	29.06.2012	• Appreciate the role of team work for better performance of Institutions • Analyse the impact of stages of team development • Improve the quality of decision making and problem solving skills in students • Identify strategies for resolving conflicts
66.	Research Methodology	Dr. R. Roy	06.08.2012	10.08.2012	• Comprehend the concept and purpose of research in technical education system • Identifying the types of research • Develop research proposal on the specified topic of research in technical education system • Carryout minor research study in their work-situation. • Recognizing teachers' potential to canyon research • Apply statistical techniques to analyze data to research in technical education system.
67.	Emotional Intelligence: Optimizing Academic Performance in Institution	Dr. R. Roy	10.09.2012	14.09.2012	• Recognize the need of Emotional Intelligence • Comprehend the concept of Emotional Intelligence • Familiar with the techniques and procedures to manage Emotional Intelligence and thereby optimize academic performance in Institution • Classify different components of Emotional Intelligence. • Plan for extending Emotional Intelligence among students and thereby leadership qualities too.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
68.	Improving Interpersonal Skill	Dr. H. Hussain	24.09.2012	28.09.2012	• Identify specific strategies for improving interpersonal relationship with students both inside and outside the classroom setting • Improve communication skill in students • Appreciate the role of emotional intelligence for better classroom interaction.
69.	Microteaching	Dr. H. Hussain	08.10.2012	12.10.2012	• Analyze the components of teaching • Practice a few skill of teaching in simulated environment • Reflect upon their teaching to improve further.
70.	Teaching Methodology	Dr. H. Hussain	03.12.2012	07.12.2012	• Analyze the factors affecting learning • Plan instruction • Select appropriate teaching strategies
71.	Human Resource Management	Dr. H. Hussain & Dr. R. Srinivasan	04.03.2013	08.03.2013	• Differentiate between personnel management and HRM • Justify the importance of HR planning • Suitable techniques of performance appraisal.
72.	Teachers' Stress and Burnout Management	Dr. R. Roy	11.03.2013	15.03.2013	• Identify the teachers' barriers within the system of education and beyond • Comprehend the concepts and facts of teachers' stress and burnout • Recognize and identify teacher's stress • Identify the stages of stress and burnout • Analyze the incubation-vacuum. • Match the perceived experiences with the symptoms expressed • Acquire prevention and recovery strategies relating burnout • Realize need of counseling for themselves.
73.	Entrepreneurial Development and Management	Dr. R. Srinivasan	18.03.2013	22.03.2013	• Identify Entrepreneurial characteristics • Describe EDP • Motivate students to become entrepreneurial • Manage an unit effectively.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
74.	Examination Management through Item Generation & Question Banking	Dr. R. Roy	25.03.2013	29.03.2013	• Recognize the need of Examination Management through Item Generation & Question Banking • Classify different types of questions • Classify different levels of questions • Analyze items • Place the analyzed items in the item-pool.
EDUCATIONAL PLANNING AND MANAGEMENT (EDPM)					
75.	Project Management (MS Project Software Based)	Dr. S. Chakraborty & Shri S. K. Naskar	23.04.2012	27.04.2012	• Develop project approach towards implementing a job • Formulate a project using MS Project software • Develop strategies for implementation of a project • Use different project management tools appropriately.
76.	Awareness on ISO 9001:2008 & Total Quality Management in Education Sector	Dr. S. Chakraborty	30.07.2012	03.08.2012	• Identify quality parameters in institutional activities • Explain the principles of QMS and TQM • Describe the steps in ISO 9001:2008 certification process • Use basic management tools for management problem solving • Develop a strategic plan for quality improvement.
77.	Developing Effective Presentation	Dr. S. Chakraborty & Dr. H. Hussain	07.01.2013	11.01.2013	• Identify the key elements of effective presentation • Communicate suitably with different categories of students • Present their lectures in a more lucid and interesting manner.
78.	Institutional Development	Dr. S. Chakraborty	21.01.2013	25.01.2013	• Identify different aspects of institutional development • Develop a process and systems approach to institutional development • Undertake a gap analysis of the institutional development • Deduce a plan of action for implementation.
79.	Occupational health, Environment & Safety-introduction to OHSAS 18001 Standards	Dr. S. Chakraborty	18.02.2013	22.02.2013	• Build-up a general awareness about occupational health, safety in workplaces • Analyze the sequences leading to an accident • Analyze various costs involved in an accident • Identify important steps to be taken to reduce chances of accidents and hazardous in workplaces • Identify requirements of OHSAS 18001 standards.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
ELECTRICAL ENGINEERING (EE)					
80.	Conventional Process Control System	Dr. S. Chattopadhyay	09.04.2012	13.04.2012	• Understand close loop control systems • Tune P, PI, PID controllers • Describe Conventional controllers such as – ratio, cascade, feed forward, inverse derivative, selective, override etc.
81.	Modern Control Systems	Dr. P. Sarkar	16.04.2012	20.04.2012	• Explain State variable technique • Apply state variable technique in controller design • Apply MATLAB Control system tool box.
82.	Mechatronics & Automation	Dr. S. Chattopadhyay	07.05.2012	11.05.2012	• Understand Mechantronics and Mechatronic System Dynamics. • Apply Sensors & Signal Conditioning circuits in Mechatronics • Implement Control System and Programmable Logic Controllers (PLC) for Mechatronics System • Describe Robotics & Automation Systems.
83.	Transducers & Instrumentation	Dr. S. Pal	14.05.2012	18.05.2012	• Classify Different types of transducers • Measure different process parameters • Apply transducers in Instrumentation
84.	Digital Logic Circuits Simulation	Dr. S. K. Mandal	21.05.2012	25.05.2012	• Explain Logic Gates and Combinational Logic Circuits, Multiplexer and Demultiplexer. • Design Decoder, Encoder and ALU, Sequential Logic Circuits • Design ADC and DAC.
85.	Digital Control – Analysis & Design	Dr. P. Sarkar	28.05.2012	01.06.2012	• Describe Linear Discrete Time Signals & Systems Modelling • Explain Time & Frequency Domain techniques. • Explain Input – Output Stability • Design Digital Controller • Design Control System with MATLAB.
86.	Laboratory Experiments on Industrial Electronics	Dr. S. K. Mandal	11.06.2012	15.06.2012	• Study Performance characteristics of UJT, Power Diode, MOSFET, SCR IGBT, DIAC and TRIAC • Describe Single Phase and Three Phase Uncontrolled and Controlled Converter, Commutation of SCRs • Describe Inverter, Chopper & Cyclo-converter, AC and DC Drives.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
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87.	Introduction to MATLAB. SIMULINK, Control System and Image Processing Toolbox	Dr. S. Pal	25.06.2012	29.06.2012	• Use MATLAB commands. • Apply Control System Tool Box Commands. • Illustrate Simulink Modelling Techniques. • Apply Image processing Tool Box Commands.
88.	Electrical Power System	Dr. S. K. Mandal	09.07.2012	13.07.2012	• Describe Per unit System and Fundamentals of Power Flow • Analyze Stability of Dynamic Systems • Describe Power System Stability • Find Numerical Solution of Transient Stability • Explain Power System Operation and Control.
89.	Advanced Control System	Dr. P. Sarkar	23.07.2012	27.07.2012	• Describe Recent Trends in Automation and Control. • Explain Modern Control Technique. • Describe Robust Control Technique • Implement Intelligent Control Technique.
90.	D.C. Machines	Dr. S. Chattopadhyay	30.07.2012	03.08.2012	• Explain Fundamental principle of DC Generator & Motors • Characterize DC Machines • Execute Parallel operation • Apply Stepper Motor, Brush less DC Motor
91.	Experiments on Sensors & Process Control	Dr. S. Pal	20.08.2012 (2 weeks)	31.08.2012	• Measure different process parameters using sensors • Explain Conventional process control techniques • Describe complex controls such as ratio, cascade, feed forward etc. • Programme PLC and DCS for process applications
92.	Laboratory Experiments on Electronic Devices	Dr. S. K. Mandal	10.09.2012	14.09.2012	• Explain BJT and FET Characteristics • Design Amplifier Circuits and Oscillators • Implement Logic Gates and Combinational Logic Circuits • Design Multiplexer, Demultiplexer, Decoder, Encoder and ALU.
93.	Control System Analysis & Design	Dr. P. Sarkar	17.09.2012	21.09.2012	• Model Physical Systems. • Analyze in Time & Frequency Domain. • Determine Input-Output Stability • Design Controller

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Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
94.	Medical Instrumentation	Dr. S. Chattopadhyay	24.09.2012	28.09.2012	• Understand Cells, Digestive System, Excretory System, Endocrinology • Describe Origins of electro-physiological signal and their characteristics • Explain Electric shock hazards and safety devices • Design practical clinical sensors and transducers • Illustrate X-ray, Fluoroscopy and Radiography, Pacemaker, Magnetic Resonance Imaging.
95.	Electrical Measurement & Signal Conditioning	Dr. S. Pal	26.11.2012	30.11.2012	• Classify different measuring instruments. • Describe Construction Operation and application of different Bridge Circuits. • Measure Circuit Components (R, L, C), Frequency, Power Factor etc. • Design Analog and Digital Signal conditioning circuits.
96.	8086 Microprocessor & Microcontrollers	Dr. S. K. Mandal	17.12.2012	21.12.2012	• Describe Architecture and working principles of 8086 Micro-processor & 8051 Micro-Controller. • Describe Addressing modes & instruction sets of 8086 & 8051. • Write Assembly Language programmes. • Design Interfacing circuits.
97.	Operation and Maintenance of Electrical Equipment	Dr. P. Sarkar & Dr. S. K. Mandal	31.12.2012 (2 weeks)	11.01.2013	• Describe AC & DC Motor Starters. • Explain Operation and Maintenance of DC Motors, Single Phase and Three Phase induction motor, Transformers and Synchronous Generators. • Understand Operation and Maintenance of Sub-Station.
98.	MATLAB Applications in Electrical Engineering	Dr. S. Pal	14.01.2013	18.01.2013	• Use MATLAB Commands. • Apply Control System Tool Box Commands & Simulink Modelling Techniques. • Illustrate applications of MATLAB in Electrical Engineering

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
99.	Power System Safety and Regulations	Dr. P. Sarkar	28.01.2013	01.02.2013	• Understand Safe working Regulations for Electrical Installations. • Identify Sub-stations and generating stations • Describe Overhead equipment and transmission lines • Describe Earthing Installation • Understand Extracts from Indian Electricity Rules & Electricity Act 2003.
100.	Process Control using PLC and DCS	Dr. S. Pal	25.02.2013	01.03.2013	• Describe P, PI, PID controllers & Complex controllers such as – ratio, cascade, feed forward, inverse derivative etc. • Programme PLC and DCS • Apply PLC and DCS in processes.
101.	Laboratory Practice on Electrical Machines	Dr. S. Chattopadhyay	04.03.2013	08.03.2013	• Understand characteristics of DC Generator • Describe speed control of DC Motor • Explain characteristics of Alternator • Implement Parallel operation of Alternator.
102.	Laboratory Practice on PLC	Dr. S. Chattopadhyay	18.03.2013	22.03.2013	• Understand fundamentals of PLC • Illustrate architecture of PLC system • Programme of PLC for applications.
LEARNING RESOURCES CENTRE (LRC)					
103.	Linear & Non-Linear Video Editing	Shri Y. Das & Shri P. Paul	23.07.2012	27.07.2012	• Identify the in-built reasoning ability to human being to perceive the content or context from visual & audio symbols. • Recognize conventional and non-conventional ways of human perception of audio and visual sequences. • Differentiate the techniques of Linear & Non-linear video editing • Use the Linear & Non-linear editing system for video editing.
104.	Operation & Maintenance of Office Equipment	Shri Y. Das & Shri S. C. Mukherjee	03.09.2012	07.09.2012	• Identify different types of office equipment and their uses • Familiar with uses of various types of office equipment (viz. Computer, EPABX, Fax, Xerox etc.) • Describe the do's and don'ts of using office equipment • Take necessary measures for maintenance of common office equipment.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
105.	Repairing & Maintenance of CD/DVD Player	Shri Y. Das & Shri S. C. Mukherjee	19.11.2012	23.11.2012	• Identify various parts CD/DVD player & CD Writer and their functions • State the compact disk structure, Coding & Decoding System • Explain digital signal processing system • Describe the do's and don'ts of CD/DVD Player • Identify the faults of a defective CD & DVD Player • Repair / maintain the CD & DVD Player
106.	Digital Photography	Shri Y. Das & Shri P. Paul	10.12.2012	14.12.2012	• Recognize the art and the science of photography • Identify various parts of a digital still camera and their functions • Take digital photographs and modify the digital image to get a quality output.
107.	Operation & Maintenance of Office Equipment	Shri Y. Das & Shri S. C. Mukherjee	14.01.2013	18.01.2013	• Identify different types of office equipment and their sues • Use types of office equipment (viz. Computer, EPABX, Fax, Xerox etc.) • Describe the do's and don't of using office equipment • Take necessary measures for maintenance of common office equipment
108.	Educational Video Film Production	Shri Y. Das & Shri P. Paul	11.02.2013 (2 weeks)	22.02.2013	• Recognize importance of educational video film • Identify various components of a video film • Use beta & digital video camera for taking various types of shots • Prepare proposal/storyboard/script for educational video film • Produce studio programmes with two cameras • Edit the video sequences recorded indoor & outdoor.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
LIBRARY					
109.	Computerized Database Management for Resource Centres	Mrs. M. Chakraborty	05.11.2012	09.11.2012	• Enable the participants to acquire knowledge regarding application of Information Technology (IT) in Resource Centres services. • Enhance the ability for preparation of database in House-Keeping activities of Library & Information Centres. • Provide the facility for Resources-Sharing globally. • Achieve the organizational goal.
MECHANICAL ENGINEERING (ME)					
110.	Non Conventional Machining Processes	Dr. D. Bose	09.04.2012	13.04.2012	• Explain the utility of non conventional machining processes • State working principles of different non conventional machining processes.
111.	MATLAB for Mechanical Engineering	Shri N. K. Mandal	28.05.2012	01.06.2012	• Explain the basic concepts in technical computations and programming using MATLAB. • Use MATLAB in calculus, algebra and engineering analysis.
112.	Machining with CNC Turning Centre	Shri N. K. Mandal	02.07.2012	06.07.2012	• Identify turning centre • Develop CNC programmes on turning centre • Operate turning centre.
113.	Welding Processes	Dr. D. Bose & Dr. S. Mandal	09.07.2012 (2 weeks)	20.07.2012	• Explain various welding processes • Explain metallurgy of welding for different welding profedures • Perform inspection and testing of welding job.
114.	Machining with CNC Milling Machine	Shri N. K. Mandal	23.07.2012	27.07.2012	• Identifying machining centre • Programming on machining centre • Operate machining centre.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
115.	Production and Operations Management	Dr. S. Mandal	21.08.2012	25.08.2012	• Explain the scope of production and operation management • Explain the concepts and tools used the following areas. ➢ Aggregate planning ➢ Forecasting ➢ Inventory management ➢ Project management ➢ Quality management ➢ Lean production ➢ Plant layout ➢ Supply chain management.
116.	Industrial Robotics	Dr. S. Mandal	03.09.2012	07.09.2012	• Describe the construction of industrial robotics • Explain the applications of industrial robots • Assess the economic justification of robot.
117.	Skill Assessment & Preparation of Laboratory Instruction sheets in Mechanical Engineering	Dr. D. Bose	17.09.2012	21.09.2012	• 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.
118.	Computer Aided Design	Shri N. K. Mandal	24.09.2012	28.09.2012	• Draw model of an engineering parts in 2D and 3D. • Analyze an engineering parts.
119.	Advances in Welding	Dr. D. Bose	08.10.2012	12.10.2012	• Explain advanced welding processes like Plasma Arc Welding, Laser beam welding, Friction stir welding etc. • State the principle of welding automation. • Narrate working principles of welding robots and their applications.
120.	Mechanical Engineering Research Methodology	Dr. S. Mandal	15.10.2012	19.10.2012	• Explain the basic concepts of research methodology • Trace the history of Mechanical Engineering • Develop the methods and techniques for data collection • Analyse and present the data.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
121.	Development of Mechanical Engineering Laboratory Experiments	Dr. S. Mandal	05.11.2012	09.11.2012	• Classify skills • Explain different types of laboratory experiments • Develop performance objectives for laboratory experiments • Design the laboratory experiments • Select instruments and equipment for a laboratory experiment • Conduct the laboratory experiment • Analyse the data and draw the conclusions.
122.	Reliability & Maintainability	Dr. D. Bose	12.11.2012	16.11.2012	• Explain various techniques for measurement of reliability of systems. • Explain various methodologies to be adopted in maintaining systems.
123.	CAD / CAM	Shri N. K. Mandal	26.11.2012	30.11.2012	• Familiarize oneself Familiar with the fundamentals of CAD/CAM. • Introduce different types of numerical controlled machines.
124.	Introduction to Product Design	Dr. S. Mandal	03.12.2012	07.12.2012	• Identify customer needs • Establish product function • Carry out product teardown and benchmarking • Establish product architecture • Generate and select concepts. • Perform concept embodiment • Model product metrics • Design product for manufacturing, assembly, environment • Develop analytical and numerical model solution • Develop physical prototypes and models.
125.	Automation	Shri N. K. Mandal	10.12.2012	14.12.2012	• Define automation. • Describe different types of automation.
126.	Advances in Manufacturing	Dr. D. Bose & Shri N. K. Mandal	14.01.2013 (2 weeks)	25.01.2013	• Classify Manufacturing. • Describe different types of automation in manufacturing.
127.	Principles of TIG & MIG Welding	Dr. D. Bose	11.03.2013	15.03.2013	• Explain principles of TIG Welding • Explain principles of MIG Welding.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
OFFICE ADMINISTRATION					
128.	Modern Office Management	Shri A. K. Chakraborty	21.08.2012	25.08.2012	•
SCIENCE					
129.	Setting up Experiments using Optical Fibre & Laser	Dr. A. De	21.05.2012	25.05.2012	• Acquire knowledge on optical fibre principles & characteristics • Understand laser principles • State various types of laser • Identify the different characteristics of optical fibre • Couple optical source into the fibre • Describe the technologies used to optical communication • State various laser related hazards • Get an in-depth knowledge about the laser and optical fibre by performing various experiments.
130.	Water Quality Monitoring & Surveillance	Dr. S. N. Mandal	28.05.2012	01.06.2012	• Familiarise oneself with water quality modern methods of laboratory experimentation in monitoring parameters and impact of water quality parameter on human health. • Handle equipment (i) performing experiments (ii) interpret results (iii) prepare test report (iv) provide laboratory instructions/develop inquiring attitude among the student skill of evaluation of laboratory. • Carryout hands-on working in the laboratory/field.
131.	Exposure on MATLAB	Dr. A. De	04.06.2012 (2 weeks)	15.06.2012	• Understand the different aspects of MATLAB in general • Apply MATLAB for mathematical calculations and Numerical analysis • Develop different types of MATLAB files. • Use MATLAB SIMULINK • Develop experimental or mathematical models using different Simulink Toolboxes • Develop a simple GUI.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
132.	Performing Experiments & Preparation of Instructional Materials on Applied Physics	Dr. A. De	09.07.2012 (2 weeks)	20.07.2012	• Perform some experiments on Applied Physics useful for Polytechnic/Engineering education • Set up at least one experiment according to participant's choice on Applied Physics • Prepare the related laboratory instruction material.
133.	Laboratory Experiments on Engineering / Environmental Chemistry	Dr. S. N. Mandal	30.07.2012	03.08.2012	• Familiarise oneself with water quality modern methods of laboratory experimentation in monitoring parameters and impact of water quality parameter on human health. • Handle equipment (i) performing experiments (ii) interpret results (iii) prepare test report (iv) provide laboratory instructions/develop inquiring attitude among the student skill of evaluation of laboratory. • Carryout hands-on working in the laboratory/field.
134.	Fundamentals of Water Treatment for Potable and Industrial use	Dr. S. N. Mandal	17.09.2012	21.09.2012	• Familiarise oneself with water quality modern methods of laboratory experimentation in monitoring parameters and impact of water quality parameter on human health. • Handle equipment (i) performing experiments (ii) interpret results (iii) prepare test report (iv) provide laboratory instructions/develop inquiring attitude among the student skill of evaluation of laboratory. • Carryout hands-on working in the laboratory/field.
135.	Physicochemical Treatment Methodology in Wastewater Management	Dr. S. N. Mandal	15.10.2012	19.10.2012	• Familiarise oneself with water quality modern methods of laboratory experimentation in monitoring parameters and impact of water quality parameter on human health. • Handle equipment (i) performing experiments (ii) interpret results (iii) prepare test report (iv) provide laboratory instructions/develop inquiring attitude among the student skill of evaluation of laboratory. • Carryout hands-on working in the laboratory/field.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
136.	Biological Treatment of Wastewater	Dr. S. N. Mandal	12.11.2012	16.11.2012	• Familiarise oneself with water quality modern methods of laboratory experimentation in monitoring parameters and impact of water quality parameter on human health. • Handle equipment (i) performing experiments (ii) interpret results (iii) prepare test report (iv) provide laboratory instructions/develop inquiring attitude among the student skill of evaluation of laboratory. • Carryout hands-on working in the laboratory/field.
137.	Fibre Optic Communication	Dr. A. De	19.11.2012	23.11.2012	• Acquire knowledge on optical fibre principles and characteristics • List the advantages and disadvantages of using optical fibre • Describe the various multiplexing technology used in optical communication with fibre • Distinguish different types of networking, different layers of networking system. • Understand the present status of optical Tele-communication system • Perform various of experiments on optical communication with Optical Fibre and Laser.
138.	Laser & Image Processing	Dr. A. De	10.12.2012	14.12.2012	• Acquaint with the basic principle of Laser • Describe the characteristics of laser & various types of Laser • List the various applications of Laser & Hazards with laser • Familiar with the experiment on image processing using laser. • Perform Lab. Experiments using Laser & get knowledge about capturing of image • Analyze the experimental image with image processing software.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
139.	Air Quality Monitoring and Control	Dr. S. N. Mandal	17.12.2012	21.12.2012	• Familiarise oneself with water quality modern methods of laboratory experimentation in monitoring parameters and impact of water quality parameter on human health. • Handle equipment (i) performing experiments (ii) interpret results (iii) prepare test report (iv) provide laboratory instructions/develop inquiring attitude among the student skill of evaluation of laboratory. • Carryout hands-on working in the laboratory/field.
140.	Physics of Materials	Dr. A. De	28.01.2013	01.02.2013	• List different types of materials • Acquire an in-depth knowledge about the fundamentals of crystal structure, deformations and various applications • Acquire knowledge about the different properties of materials like, electric, magnetic & optical properties • Understand the functions of various devices based on the different properties of materials.

STTP SCHEDULE 2012-2013

B. IN-HOUSE PROGRAMMES

Demand based training programmes will be organized in the campus of the client institutes with flexible duration according to the convenience of the clients. The expenditure for programmes conducted at Govt./Govt. aided technical institutions, ***excluding those institutions covered under TEQIP,*** will be borne by NITTTR, Kolkata according to the norms of the Institute. Course fee will be charged for conducting such programmes in other categories of technical institutions.

C. 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. Those interested are invited to send their demands proposals.

D. COLLABORATIVE PROGRAMMES

Such programmes will be conducted in collaboration with technical institutions / industries by sharing of resources. 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), United Nations International Children's Emergency Fund (UNICEF), United Nations Development Programme 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 us.

STTP SCHEDULE 2012-2013

E. STATE LEVEL SHORT TERM TRAINING PROGRAMMES AT EXTENSION CENTERS

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

Venue: NITTTR Kolkata Extension Centre BHUBANESWAR

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
1.	Modelling and Analysis of Electrical Circuits	Dr. U. Kar	16.04.2012	20.04.2012	• Understand concepts of electrical circuits and systems • Understand the need for circuit analysis • Understand the techniques of circuit analysis • Develop the knowledge of mathematical tools for circuit analysis • Develop the software models for circuit analysis • Develop the concept of effective presentation of the subject.
2.	Formulation of Action Plan & Financial Management for MHRD Sponsored CDTP Scheme (for the State of Orissa)	Dr. U. C. Kumar	23.04.2012	27.04.2012	• Understand the scope and activities of CDTP scheme • Prepare Action Plan of CDTP Scheme • Disseminate Appropriate Technology • Maintain accounts of CDTP Scheme • Involve NGOs in implementing CDTP Scheme. • Liaise with PRI's DRDC, KVK etc.
3.	Skill Development in Workshop / Laboratory	Shri N. K. Mandal	30.04.2012	04.05.2012	• Acquire different types of employable skills in newly recruited teachers. • Assess performance of learner.
4.	Power Hydraulics & Pneumatic Systems	Dr. D. Bose	21.05.2012	25.05.2012	• Describe various elements of oil powered hydraulic systems • Illustrate working principles of air powered pneumatic systems
5.	Community Development through Technical Institutes	Smt. Sheela Yadav Rai	27.08.2012	31.08.2012	• Know a create awareness about the various Community Development Programmes • Understand the Schemes of the Government • Identify the need • Conduct the need analysis survey • Form self help group.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
6.	Development of Assessment Tools in Competency - based Curriculum	Dr. U. Kar & Shri S. K. Naskar	03.09.2012	07.09.2012	• Understand the need for assessment tools • Understand the approach of Competency-based curriculum development • Identify assessment tools in Competency-based curriculum • Identify implementation issues.
7.	Development & Implementation of Staff Training Programme for Polytechnic Teachers	Dr. S. Chakraborty	10.09.2012	14.09.2012	• Conduct training needs assessment among fellow colleagues • Apply various training methods on the basis of types of learning. • Develop step-by-step approach towards planning and implementing a training programme • Evaluate the effectiveness of a training programme.
8.	MATLAB Applications in Electrical Engineering	Dr. P. Sarkar & Dr. S. K. Mandal	05.11.2012 (2 weeks)	16.11.2012	• Use MATLAB Commands. • Apply Control System Tool Box Commands & Simulink Modelling Techniques. • Illustrate applications of MATLAB in Electrical Engineering.
9.	Evaluating Students' Performance	Dr. H. Hussain	19.11.2012	23.11.2012	• Realize the need for practicing writing questions to develop a question bank • Categorise different types of questions • Develop objective type questions.
10.	Awareness of ISO 9001:2008 & TQM in Education Sector	Dr. S. Chakraborty	17.12.2012	21.12.2012	• Identify quality parameters in institutional activities • Explain the principles of QMS and TQM • Describe the steps in ISO 9001:2008 certification process • Use basic management tools for management problem solving • Develop a strategic plan for quality improvement.
11.	Concept Map in Teaching - Learning	Dr. S. Mandal	28.01.2013	01.02.2013	• Analyze knowledge • Analyze concept • Prepare concept map • Develop instructional objectives • Prepare lesson plan • Construct test items.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
12.	Optical Fibre & Laser Technology	Dr. A. De	11.02.2013	15.02.2013	• Gain knowledge about the science of laser & various types of laser • List various hazards related to laser • Identify the characteristics of optical fibre • Describe various applications of optical fibre and laser • State the basic principles of fibre optic communication • List various advantages and disadvantages of optical communication • State the technologies used in optical communication with optical fibre and laser • About the optical technology through field visits.
13.	Reinforced Concrete Design	Dr. J. J. Mandal & Dr. S. Bhanja	18.02.2013	22.02.2013	• Identify the principles underlying the limit state method of reinforced concrete design • Design different structural elements • Introduce computer software for design of RC structural elements.
14.	Developing Research Proposal	Dr. R. Roy & Dr. R. Srinivasan	25.02.2013	01.03.2013	• Recognize the importance of research proposal • Recognize the components, functions and characteristics of good research proposal • Acquainted with different steps of research proposal • Develop scientific research proposal in their respective topics.
15.	Awareness on Environmental Management and ISO 14001	Dr. S. Chakraborty & Dr. S. N. Mandal	04.03.2013	08.03.2003	• Identify various aspects of EHS in environmental management • Identify various test practiced for monitoring purposes • Understand the basic tenets of IS 14001 environmental standards • Develop a plan of action for maintaining environment in organizational life.
16.	Experiments on Sensors & Measurement	Dr. S. Pal & Dr. S. Chattopadhyay	25.03.2013	29.03.2013	• Classify Different types of sensors and transducers • Measure different process parameters using sensors • Apply sensors and transducers in Instrumentation

STTP SCHEDULE 2012-2013

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

Venue: NITTTR Kolkata Extension Centre GUWAHATI

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
1.	Formulation of Action Plan & Financial Management for MHRD Sponsored CDTP Scheme (for the State of Assam)	Smt. Sheela Yadav Rai	14.05.2012	18.05.2012	• Understand the scope and activities of CDTP scheme • Prepare Action Plan of CDTP Scheme • Disseminate Appropriate Technology • Maintain accounts of CDTP Scheme • Involve NGOs in implementing CDTP Scheme. • Liaise with PRI's DRDC, KVK etc.
2.	Innovative Approaches in Curriculum Design	Dr. U. Kar & Shri S. K. Naskar	04.06.2012	08.06.2012	• Develop concepts of curriculum development • Understand various approaches of curriculum design • Identify implementation issues in innovative curriculum.
3.	Environmental Awareness	Dr. S. Chakraborty & Dr. S. N. Mandal	11.06.2012	15.06.2012	• Identify various aspects of EHS in environmental management • Identify various test practiced for monitoring purposes • Understand the basic tenets of IS 14001 environmental standards • Develop a plan of action for maintaining environment in organizational life.
4.	Human Resource Management	Shri S. K. Naskar	30.07.2012	03.08.2012	• Understanding the concept and scope of HRM • Apply the concepts in the field of work
5.	Examination Reform through Item Generation & Question Banking	Dr. R. Roy	21.08.2012	25.08.2012	• Recognize the need of Examination Reform • Generate sound items • Recognize the need of question bank • Classify different types and levels of questions • Compare different types of question • Analyze the questions • Compile and arrange the questions in a question bank
6.	Earthquake Resistant Analysis & Design of RCC Structures	Dr. J. J. Mandal & Dr. S. Bhanja	08.10.2012	12.10.2012	• Understand the basic aspects of application of structural dynamics in analysis and design of RCC structures with special emphasis to relevant clauses of IS 1893, 4326 and 13920.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
7.	Development and Implementation of Staff training Programme for Polytechnic Teachers	Dr. S. Chakraborty	15.10.2012	19.10.2012	• Conduct training needs assessment among fellow colleagues • Use various training methods on the basis of types of learning. • Develop step-by-step approach towards planning and implementing a training programme • Evaluate of the effectiveness of a training programme.
8.	Entrepreneurship Development for Teachers	Dr. S. Chakraborty	19.11.2012	23.11.2012	• Identify why entrepreneurship development is important • Imbibe basic entrepreneurial characteristics among the students • Differentiate between various types of stages of entrepreneurial development • Analyze various stages of entrepreneurial development • Appreciate the role of teachers promoting entrepreneurship among students.
9.	Modeling and Analysis of Linear Control Systems	Dr. U. Kar	26.11.2012	30.11.2012	• Understand concepts of electrical circuits and systems • Understand the need for circuit analysis • Understand the techniques of circuit analysis • Develop the knowledge of mathematical tools for circuit analysis • Develop the software models for circuit analysis • Develop the concept of effective presentation of the subject.
10.	Application of Non-Conventional Energy in Rural Areas	Smt. Sheela Yadav Rai	17.12.2012	21.12.2012	• Understand various types of Non-conventional Energies Sources • Understand the scope of Solar Energy, Solar Thermal Conversion, Solar Collector, Wind Energy • Know about Hybrid Energy System • Know about Energy from Biomass • Understand the benefit using Non-conventional Energies over Conventional Energizers Sources • Apply Non-conventional Energies through various agencies.
11.	Developing Research Proposal	Dr. R. Roy	28.01.2013	01.02.2013	• Recognize the importance of research proposal • Recognize the components, functions and characteristics of good research proposal • Acquainted with different steps of research proposal • Develop scientific research proposal in their respective topics.

STTP SCHEDULE 2012-2013

Sl. No.	Program Title	Program Co-ordinator(s)	Date		Objectives
			From	To	
12.	MATLAB and LAB VIEW Applications in Electrical Engineering	Dr. P. Sarkar & Dr. S. K. Mandal Dr. S. Chattopadhyay	04.02.2013 (2 week)	15.02.2013	• Use MATLAB Commands. • Apply Control System Tool Box Commands & Simulink Modelling Techniques. • Illustrate applications of MATLAB in Electrical Engineering • Understand fundamentals of LABVIEW • Implement LABVIEW in Engineering
13.	Lesson Planning	Dr. S. Mandal	18.02.2013	22.02.2013	• Explain the different stages of instructions in a class • Justify the usefulness of lesson planning • Explain the major steps in lesson planning • Describe the outline of model for lesson plan • Prepare a lesson plan • Evaluate a lesson plan • Construct test items.
14.	Optical Fibre & Laser Technology	Dr. A. De	04.03.2013	08.03.2013	• Gain knowledge about the science of laser & various types of laser • List various hazards related to laser • Identify the characteristics of optical fibre • Describe various applications of optical fibre and laser • State the basic principles of fibre optic communication • List the various advantages and disadvantages of optical communication • State the technologies used in optical communication with optical fibre and laser • Get an in-depth knowledge about the optical technology through field visits.
15.	Management Principles for Technical Teachers	Shri S. K. Naskar	11.03.2013	15.03.2013	• Understand and apply the management principals • Apply these principles to Technical Institutions.
16.	Application of Quality Management Tools for Polytechnic Teachers	Dr. S. Chakraborty	18.03.2013	22.03.2013	• Develop a clear concept on quality of product and services • Identify quality parameters in case of different situations • Develop a broader idea about a nature of different quality management tools and there efficiency • Apply some of the basic quality management tools in real situations.

STTP SCHEDULE 2012-2013

PARTICIPANTS' PROFILE

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

Overview of STTPs, being circulated separately may be consulted for details about the programme including the profile of target participants.

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

Financial Norms

a) Course Fees:

Course fees @ Rs. 3,500/- per Person-Week will be charged for STTPs conducted at NITTTR, Kolkata and its Extension Centres **only from the participants** of Institutions covered under TEQIP. Course fees for those sponsored by the Industry are negotiable. The participants from Govt./ Govt.-Aided/ Self-Financed institutions, not covered under TEQIP, ***need not pay any course fees***.

b) Facilities:

The participants from Govt./Govt.-aided technical institutions, ***excluding those from institutions covered under TEQIP***, are entitled for reimbursement of TA/DA by NITTTR, Kolkata as per norms. However, TA/DA for other participants are to be borne by the sponsoring authority or self. Working Lunch and training materials would be provided to all the participants attending training programmes.

c) Hostel:

Accommodation is available in the Institute Hostel on payment of charges and on first-come-first-served basis but FAMILY ACCOMMODATION WOULD NOT BE AVAILABLE.

How to Apply

Intending participants may use ***photocopies of the Application Form given in the next page*** for registration to different STTPs. The filled in form should be ***sent through appropriate sponsoring authority (proper channel) addressed to us for programmes conducted at NITTTR, Kolkata***. However for programmes conducted at Extension Centres, application should be sent to the Consultant of respective Extension Centre.

Contact

The Institute is located near Labony Bus Stand (Sector-III) in Salt Lake City and can be reached by taxi from Netaji Subhas Chandra Bose International Airport and also from Howrah, Shalimar, Sealdah and Kolkata Railway Stations.

NITTTR KOLKATA

STTP SCHEDULE 2012-2013

GENERAL INSTRUCTION

1) Please send your application at least 45 days before the commencement of the course.
2) Normally course will commence at 10:00 a.m. as per venue. ***Participants are advised to take their registration before 10:30 a.m. However, the time may be relaxed upto 11:00 a.m. in exceptional cases.***
3) Outstation participants are advised to avail the Hostel facility one day before the commencement of their course, if necessary.
4) In all cases, the selection letters will be despatched one month before the date of commencement of the course.
5) Applicants may ensure their status over telephone 1 (One) week before the commencement of course.
6) Candidates who are selected, but have not received the selection letters are advised to apply for duplicate copy of selection letter through their competent authority. Otherwise no duplicate copy of selection letter will be issued.
7) All applications should be forwarded through proper channel. Application without the recommendation of the sponsoring authority will not be entertained. Incomplete/illegible applications are liable for rejection. Advance Copy of Application will not be considered for selection.
8) All participants should have to produce release letter at the time of the joining in the course. Separate release order should be produced against each course.
9) Applicants may send their application by Post/Fax or the same can be directly submitted at NITTTR, Kolkata in the Despatch Section.
10) In case the date of commencement of course happens to be a holiday the course may be held as announced.
11) Participants are requested to submit only one Application for a particular Short-Term Training Programme. Multiple Applications is liable for cancellation.
12) The selection list for each STTP will be on the Website 1 (One) week before.

STTP SCHEDULE 2012-2013

LIST OF HOLIDAYS (April 2012 to December 2012)

Mahabir Jayanti	:	5th April	Thursday
Good Friday	:	6th April	Friday
Guru Rabindranath's Birthday	:	8th May	Tuesday
Janamashtami (Vaishnavi)	:	10th August	Friday
Independence Day	:	15th August	Wednesday
Idu'l-Fitr*	:	20th August	Monday
Mahatma Gandhi's Birthday	:	2nd October	Tuesday
Dussehra (Maha Ashtami)	:	22nd October	Monday
Dussehra (Maha Navami)	:	23rd October	Tuesday
Dussehra (Vijay Dashmi)	:	24th October	Wednesday
Maharishi Valmiki's birthday / Lakshmi Puja	:	29th October	Monday
Diwali (Deepavali)	:	13th November	Tuesday
Bhai Duj	:	15th November	Thursday
Guru Nanak's Birthday	:	28th November	Wednesday
Christmas Day	:	25th December	Tuesday

**Subject to the appearance of Moon.*

NITTTR KOLKATA

STTP SCHEDULE 2012-2013

CONTACTS	
Chairman, Board of Governors, NITTTR, Kolkata	
Shri Arun Kumar Saha	
Director	
Prof. Sanjay Kumar Bhattacharyya	
Academic Co-ordinator	**033-2358-7442**

Civil Engineering		
	Dr. J. J. Mandal, Professor & Head	2337-4120 PBX Extn: 421
	Prof. Manoj Das, Professor	PBX Extn: 422
	Dr. Santanu Bhanja, Associate Professor	PBX Extn: 424
	Mrs. Mithu Dey, Assistant Professor	PBX Extn: 474
Community Development & Rural Technology		
	Dr. Uday Chand Kumar, Professor & Head	2359-3301 PBX Extn: 516
	Smt. Sheela Yadav Rai, Assistant Professor	PBX Extn: 515
Computer Science & Engineering		
	Dr. Ranjan Dasgupta, Professor & Head	2337-3959 PBX Extn: 504
	Dr. Samir Roy, Associate Professor	PBX Extn: 434
	Shri Rajeev Chatterjee, Assistant Professor	PBX Extn: 507
Curriculum Development Centre		
	Dr. (Mrs.) Urmila Kar, Professor & Head	2321-2494 PBX Extn: 436
	Shri Sukanta Kr. Naskar, Associate Professor	PBX Extn: 437
Education		
	Dr. Raghupathi Srinivasan, Professor & Head	2337-0096 PBX Extn: 425
	Dr. Rajarshi Roy, Associate Professor	PBX Extn: 423
	Dr. (Ms.) Habiba Hussain, Assistant Professor	PBX Extn: 461

Educational Planning & Management		
	Dr. Sekhar Chakraborty, Professor & Head	2337-0116 PBX Extn: 418
Electrical Engineering		
	Dr.Prasanta Sarkar, Professor & Head	2337-0150 PBX Extn: 431
	Dr. Subrata Chattopadhyay, Associate Professor	PBX Extn: 497
	Dr. Soumitra Kumar Mandal, Associate Professor	PBX Extn: 500
	Dr. (Mrs.) Sagarika Pal, Assistant Professor	PBX Extn: 432
Mechanical Engineering		
	Dr. Samiran Mandal, Professor & Head	2337-0099 PBX Extn: 498
	Dr. Dipankar Bose, Professor	PBX Extn: 523
	Shri Nirmal Kumar Mandal, Associate Professor	PBX Extn: 519
Science		
	Dr. (Mrs.) Anuradha De, Professor & Head	2337-0109 PBX Extn: 509
	Dr. Sailendra Nath Mandal, Associate Professor	PBX Extn: 511/446
Learning Resource Centre		
	Shri Y. Das, Production Officer	PBX Extn: 414
Administration		
	Shri Ashit Kumar Chakraborty Senor Administrative Officer	2358-7572, PBX Extn: 404
Library		
	Smt. Manisha Chakraborty, Librarian	PBX PBX No. 439

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APPLICATION FORM

1. (a) Program Title :

   (b) Date : From _____ To _____

   (c) Prog. Coordinator/s

2. (a) Applicant's Name (in CAPS) :

   First | Middle | Last

   (b) Designation :

   (c) Department :

   (d) Institution :

   (e) Contact Address (Office) :

   Pin:

   Phone | Fax | Mobile

   Email

3. Highest Academic Qualification

Degree/Diploma	University/Others	Year of Passing	Class Obtained

4. 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

NOTE: Application without signature of sponsoring authority will not be considered for selection

NITTTR KOLKATA

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For further information, please contact:

The Academic Coordinator
NITTTR, Kolkata, Block-FC, Sector-III, Salt Lake City, Kolkata.700106
Tel: (033) 2358.7442 (Academic Coordinator), (PBX) (033) 2337.0479/4125
Fax: (033) 2337.6331, Gram: RITTEAST,
Email: academic_nitttr_kol@yahoo.com

Extension Centre Contact:

The Consultant
NITTTR Kolkata Extension Centre, Guwahati
Girls' Polytechnic Campus, Bamuni Maidan
Guwahati-781021
Tel/Fax: (0361) 2652344

The Consultant
NITTTR Kolkata Extension Centre, Bhubaneswar
Government Polytechnic Campus, Chandrasekharpur
Bhubaneswar-751023
Tel/Fax: (0674) 2300776

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