



Directorate General of Training



Skill India

भारत सरकार

Government of India

कौशल विकास और उद्यमिता मंत्रालय

Ministry of Skill Development and Entrepreneurship

प्रशिक्षण महानिदेशालय

Directorate General of Training

Short Term Courses Training calendar: 2023-24



आउटर रिंग रोड, तुमकुर रोड के पास, यशवंतपुरा पोस्ट,
बेंगलुरु-560022

**Outer Ring Road, Off Tumkur Road, Yeshwantpura Post,
Bengaluru-560 022**

About the Institute

National Skill Training Institute, erstwhile Foremen Training Institute, was setup in 1968 by the Government of India, Ministry of Labour & Employment, then Directorate General of Employment and Training (DGE&T) as a pioneer institute for upgrading the technical and behavioural skills of Supervisors. Started with assistance from the State of Baden Wuerttemberg, Federal Republic of Germany, this institute has come a long way in carving a niche for itself as “Best Specialized Training Institute” under then DGE&T and conferred as “CENTRE OF EXCELLENCE for Supervisory Training & Development” by APSDEP-ILO.

This institute is entrusted with the mission of producing systematically trained Craft Instructors to meet the huge demand of various Industrial training institutes in our country. It conducts training under Craft Instructor Training Scheme (CITS) for Fitter, Welder, Electronic Mechanic, Electrician and CSA trades. In addition to above, this institute is also offering Advanced Diploma (Vocational) in IT, Networking & Cloud Computing in collaboration with IBM-India.

In adherence to its mission, NSTI is offering short term courses in various engineering sectors to skill/upskill/reskill the technicians and engineers from industries and establishments.

Apart from the scheduled short term program, custom made short term programs are also conducted as per the needs of the industries. The contents, duration and date of such programs may be finalised in consultation with the industry or establishment.

The Institute is continuously upgrading and updating its infrastructure facilities in keeping with the changing industrial scenario and the emerging needs of the Industries. It has state of the art training facilities in the areas of Production Engineering, Industrial Engineering, Control Systems, Manufacturing

Technology, Fabrication, CNC, CAD/CAM, Electronics and Communication and other related areas with well-equipped modern Laboratories and Workshop. The Institute has setup two world class Laboratories in Electrical and Fabrication (welding) under World Bank assisted Vocational Training Improvement Project.

Vision

*“Believe in our capacity to excel , contribute significantly in skill development of the labor market, focus on core areas of excellence and collaborate with industry and understand their requirements and concentrate on Initiatives of **Skill India and Make in India** to constantly supply industry ready skilled human resources.”*

Mission

- Institute is dedicated for providing the global labor market, excellent training programs which meet their training challenges and technological goals.
- Deploy the right mix of contents as deliverables in training so that trained workforce are readily useful to the industry.
- Commitment to constant upgradation of infrastructure, constant updating of technological skills, thereby keeping pace with industrial expectations.
- Engage with industry to have a constant Industry-Institute relationship.
- Stimulate and Inspire skill development training activities across the country and believe SKILL INDIA is the only ultimate solution for the success of Make in India.
- Supply quality Craft Instructors to it is who will shape the future of Vocational training.

Training Calendar 2023-24

COURSE CODE	NAME OF THE COURSE	WEEKS	COURSE SCHEDULE	COURSE CONTENTS
01. CNC PROGRAMMING				
Course Co-ordinator: Shri. R Murugarajan			Contact No.: 9176576437	
Designation: Deputy Director				
1.1	CNC Programming and simulation on Milling Centre	1	24/04/23 to 28/04/23 03/07/23 to 07/07/23 28/08/23 to 01/09/23 23/10/23 to 27/10/23 08/01/24 to 12/01/24 04/03/24 to 08/03/24	Developments in CNC, Machining concepts, Part programming concepts using G and M codes, process planning, Tooling, simple part programming on contour, stock removal, drilling, threading, sub programming, canned cycles. Testing of CNC programmes by simulation on Siemens control system. Demo/practical's on CNC Milling machine.
1.2	CNC Programming and Simulation on Turning Centre	1	01/05/23 to 05/05/23 17/07/23 to 21/07/23 11/09/23 to 15/09/23 06/11/23 to 10/11/23 22/01/24 to 26/01/24 18/03/24 to 22/03/24	Developments in CNC, CNC machining concepts, Part programming concepts using G and M codes, process planning, CNC Tooling, simple part programming on CNC Turning centre for contour , stock removal, drilling, threading, sub programming, canned cycles. Testing of CNC programmes by simulation on Siemens control system.. Demo/practical's on CNC lathe machine operation
1.3	Programming and Operation on CNC Vertical Milling Centre	1	05/06/23 to 09/06/23 25/09/23 to 29/09/23 20/11/23 to 24/11/23 05/02/24 to 09/02/24	Description of the principle parts of CNC Vertical machining centre, Constructional features of machine elements, Co-ordinate systems, Structure of part programming on machines control , concepts of work and tool geometrical offsets. General introduction to Mechanical & Hydraulic elements. Demo and Practice on CNC Vertical Machining Centre.
1.4	Programming and Operation on CNC Turning & Milling Centre	1	14/08/23 to 18/08/23 09/10/23 to 13/10/23 04/12/23 to 08/12/23 19/02/24 to 23/02/24	Description of the principle parts of Turn Mill Centre, Constructional features of Turn Mill centre, Different coordinate systems, concept of Three axis operation in turning machine, Structure of part programming for Turn mill with Machine controls, concept of work and tool geometrical offsets, Calculation of coordinate values for Milling and Drilling applications by using 3rd axis and mapping on to the machine coordinate system for programming. Demo and Practice on CNC Turn Mill Centre.
02. CAD/CAM				
Course Co-ordinator: Shri. G. Venkatesh			Contact No.: 9849384942	
Designation: Deputy Director				
2.1	AutoCAD- Basics	1	03/07/23 to 07/07/23 20/11/23 to 24/11/23 01/01/24 to 05/01/24	Introduction to AutoCAD, Setting up drawing environment – Workspace, Limits & units, Co-ordinate system. Creating objects using Draw commands, Editing drawings using Modify commands, Creating dimensions, Drawing with precision- Drafting aids & Formatting objects. Blocks, Design center, References, Layers, Parametric constraints, Script writing, Isometric views. Followed by Practice on standard geometrical shapes. Drafting 2D mechanical component drawings. Constructing the sub-assembly drawings.

2.2	Auto CAD -2D Drafting and 3D Modelling	2	21/08/23 to 01/09/23 03/10/23 to 13/10/23 19/02/24 to 01/03/24	Introduction to AutoCAD, Setting up drawing environment – Workspace, Coordinate system. Creating & Editing 2D objects, Creating dimensions, Drafting aids, Blocks, Design center, References. Concepts of Modeling and primitives. Understanding 3D views and Projection. . Working with Solid Primitives and interactive view in 3D, Creating 3D Objects from 2D. Editing 3D objects using Boolean operation, Solid Editing and 3D operations. Introduction to Mesh and Mesh creation and editing. Working with Multiple view ports in 3D Followed by Practice on standard geometrical shapes, Drafting 2D mechanical component drawings, Constructing the sub-assembly drawings, Creating solid shapes, Constructing wireframe, surface and solid objects, Constructing solid mechanical components.
2.3	Solid Edge -CAD	1	31/07/23 to 04/08/23 30/10/23 to 03/11/23 29/01/24 to 02/02/24	Introduction to modelling and basic concepts, Use of interface, concept of parametric, Constraints-dimensional geometrical, Selecting and Editing, Sketcher geometry, Base features constructions, Part Modification, Functional Features Constructions, Model Synchronous. Practice on Interface, Practice on Feature, Practice on Part modeling
2.4	CATIA -Part Design	1	10/07/23 to 14/07/23 25/09/23 to 29/09/23 11/12/23 to 15/12/23 18/03/24 to 22/03/24	Introduction to CATIA- Workbenches, Understanding the functions of toolbars, Drawing sketches. editing and modifying sketches, Constraining sketches, Creating base features, Creating hole, dress up, rib features, Editing features, Transformation features – translate, rotate, mirror, patterns a)Practice on navigation and Workbenches b) Practice on Drawing Sketches c) Practice on Modifying sketches d) Practice on Constraining Sketches e) Practices of Creating features f) Practice on Editing Features g) Practice on Transformation of features
2.5	CATIA- Product Design	1	17/07/23 to 21/07/23 18/12/23 to 22/12/23 15/01/24 to 19/01/24 25/03/24 to 29/03/24	Create and edit surfaces - Projecting Intersection curves. Create and edit assemblies - Building Assemblies, Moving components Assembly constraints. Prepare CATIA drawings of Parts and Assemblies Drawing files, Creating & Editing views, Inserting frames and title blocks, Annotating drawings Bill of Material. Create and edit sheet metal components - Walls, Flanges, Bends and Folding, Create and animate mechanism - Designing a Mechanism a) Practice on Create and Edit surfaces b) Practice on Create and Edit assemblies c) Practice on Creating Drawings d) Practice on Creating and Editing Sheet metal e) Practice on Mechanism Designing
2.6	Solid Edge – CAM	1	07/08/23 to 11/08/23 06/11/23 to 10/11/23 05/02/24 to 09/02/24	Introduction on Solid Edge- CAM. Concepts on 2D drawing and Solid design. Tool path generation and verification. Tool path generation and simulation exercises
2.7	Mastercam- Milling	1	11/09/23 to 15/09/23 04/12/23 to 08/12/23 11/03/24 to 15/03/24	Introduction on Master CAM. Concepts on 2D drawing and Solid design. Exposure to Milling. Tool path generation and verification. Tool parameter and job set up parameter. Program generation using Post Processor. Tool path generation and simulation exercises. a) Practice on tool path generation/ sketching. b) Practice on stock setup, Practice on Tool selection and parameter selection. c) Creating simulation of 2D contour operation, pocketing operation, drilling operation and facing. Demonstration on d) Transfer of post processor programme to Vertical Machining center
2.8	Mastercam- Turning	1	16/10/23 to 20/10/23 08/01/24 to 12/01/24	Introduction on Master CAM. Concepts on 2D drawing and Solid design. Exposure to Turning. Tool path generation and verification. Tool parameter and job set up parameter. Program generation using Post Processor. Practice on Master CAM (Lathe) exercises.

				Tool path generation and simulation exercises. NC file generation using Post Processor. a) Practice on tool path generation / sketching. b) Practice on stock setup /chuck selection, c) Practice on Tool selection and parameter selection. d) Creating simulation of 2D Turning operation – Rough turning, face turning, step turning, taper turning and C-axis operation. e) Demonstration on Transfer of post processor programme to Turn mill center
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03. WELDING TECHNOLOGY

Course Co-ordinator: Shri. Rajesh

Contact No.: 9312121362

Designation: Assistant Director

3.1	Advance Welding Technology	1	17/04/23 to 21/04/23 12/06/23 to 16/06/23	Welding Terminology, SMAW, GMAW, GTAW and SAW processes, Welding Power sources, Selection of consumables, Welding Metallurgy, Welding symbols, Welding defects. Demonstrations& practice on SMAW/GTAW/GMAW/SAW/RW process and NDT techniques.
3.2	Welding Inspection	1	08/05/23 to 12/05/23 03/07/23 to 07/07/23	Introduction of welding, safety in welding, Welding symbols, Welding defects, Dimensional Inspection, Features and advantages of four basic welding NDT methods, DPT & MPT practice, Practice on weld measurement gauges.
3.3	Non Destructive Testing	1	07/08/23 to 11/08/23 11/09/23 to 15/09/23	Introduction of welding, safety in welding, Welding symbols, Welding defects, Dimensional Inspection, Features and advantages of four basic welding NDT methods, DPT ,MPT & UT practice, Radiographic film interpretation.
3.4	MIG/MAG Welding (GMAW)	1	09/10/23 to 13/10/23 20/11/23 to 24/11/23 19/02/24 to 23/02/24	Process features, Power sources, Wire feed systems, Selection of welding parameter, Welding wire and specification, Shielding gases, Welding defects, Safety, Hands on practice on different joints on MS & SS metals.
3.5	TIG Welding (GTAW)	1	11/12/23 to 15/12/23 08/01/24 to 12/01/24 18/03/23 to 22/03/23	Process features, Power sources, Welding torches types, Selection of welding parameter, Filler rod and specification, Shielding gases, Welding defects, Safety, Hands on practice on different joints on MS, Aluminum & SS metals.

04. HYDRAULICS AND PNEUMATICS CONTROLS

Course Co-ordinator: Smt. Shobha Bai

Contact No.: 8951462856

Designation: Training Officer

4.1	Pneumatic controls	1	17/04/23 To 21/04/23 29/05/23 To 02/06/23 17/07/23 To 21/07/23 28/08/23 To 01/09/23 02/10/23 To 06/10/23 22/01/24 To 26/01/24	Fluid power system, compressed air generation and distribution, FRL unit, Pneumatic actuators. All types of pneumatic valves' symbols, cross-section, function. Simulation and Hands-on practice
4.2	Hydraulic Controls	1	24/04/23 To 28/04/23 15/05/23 To 19/05/23 19/06/23 To 23/06/23 24/07/23 To 28/07/23 18/12/23 To 22/12/23 12/02/24 To 16/02/24	Industrial Fluid power system, Pumps, Powerpack, Fluids, all types of Hydraulic valves' symbols, cross section, function
4.3	Electro-Pneumatic and Automation (Relay-based)	1	08/05/23 To 12/05/23 26/06/23 To 30/06/23 25/12/23 To 29/12/23 19/02/24 To 23/02/24	Pneumatic systems, solenoid valves, electrical control components-push buttons, relays, limit switches, proximity sensors, pressure switches, timers and counters. Simulation and Hands-on practice

4.4	PLC-based control Pneumatic systems (SIEMENS S7 1200)	1	12/06/23 To 16/06/23 30/10/23 To 03/11/23 25/03/24 To 29/03/24	Siemens S7 1200 PLC Hardware and Software aspects, simple programming instructions and ladder programming using operators like bit-logic, timers and counters and memory instructions.
4.5	Electro-Pneumatic & Electro-Hydraulic Controls	1	07/08/23 To 11/08/23 11/09/23 To 15/09/23 13/11/23 To 17/11/23 08/01/24 To 12/01/24 04/03/24 To 08/03/24	Pneumatics and Hydraulic systems, solenoid valves, electrical control components-push buttons, relays, limit switches, proximity sensors, pressure switches, timers and counters. Simulation and Hands-on practice
4.6	Modular Production system with Electro- Pneumatic and PLC- based controls	1	03/07/23 To 07/07/23 09/10/23 To 13/10/23 11/12/23 To 15/12/23 01/01/24 To 05/01/24 11/03/24 To 15/03/24	Industrial applications of Electro-pneumatics (solenoid valves & proximity sensors) of production processing units with integration of PLC 1200 TIA Siemens.
4.7	Advanced PLC programming (SIEMENS S7 1200) with HMI (TIA SIEMENS)	1	10/07/23 To 14/07/23 14/08/23 To 18/08/23 25/09/23 To 29/09/23 04/12/23 To 08/12/23 05/02/24 To 09/02/24 18/03/24 To 22/03/24	PLC Programming with analog and digital inputs & outputs, Communication Protocols and PLC & HMI tags
4.8	Industrial Robotic Controls and its Programming	1	04/09/23 To 08/09/23 16/10/23 To 20/10/23 27/11/23 To 01/12/23 15/01/24 To 19/01/24 26/02/24 To 01/03/24	Robotic teach Pendant key functions and user interface, Introduction to Industrial robotics, functions and jogging (programming for pick and place applications)

05. METROLOGY AND QUALITY CONTROL

Course Co-ordinator: Shri. V Venkatesh

Contact No.: 6381754030

Designation: Dy. Director

5.1	Engineering Metrology & its Application	1	01/05/23 to 05/05/23 11/12/23 To 15/12/23 05/02/24 To 09/02/24 25/03/24 To 29/03/24	Introduction to Inspection and Quality Control, need for Precision measurement in Industries, Limits, Fits & Tolerances and limit gauges, Linear Measurements, Optical Measuring Instruments, Angular measurements, Calibration & its necessity, Metrology Lab for Practice
5.2	Total Quality Management Concepts	1	24/04/23 To 28/04/23 14/08/23 To 18/08/23 30/10/23 To 03/11/23 18/03/24 To 22/03/24	Introduction to Quality and System requirement for Total Quality, Total employee involvement, Team work, Problem solving Techniques, PDCA Cycle – Deming's 14 points, 7 QC tools, Waste Elimination process, Just-in-Time concepts, House-keeping (5S), POKA YOKE, KAIZEN, SMED and 6 Sigma Concepts, Customer Relationship Management Case studies & videos on Just-in-Time concepts, 5S, POKA YOKE, KAIZEN, SMED concepts.
5.3	Quality Control & Management	1	08/05/23 To 12/05/23 25/09/23 To 29/09/23 01/01/24 To 05/01/24 04/03/24 to 08/03/24	Quality Control V/s Quality Assurance, Introduction to statistics, SQC Techniques for variability reduction, use of Control charts, Process Capability study & performance Analysis, QCC & 7 QC Tools, Quality Management types - ISO -9000, TQM and 6 Sigma Concepts, Vendor Development and Rating.

06. GREEN TECHNOLOGY

Course Co-ordinator: Shri. Palani AS

Contact No.: 8297723984

Designation: Training Officer

6.1	Solar PV Installation & Commissioning	1	26/06/23 to 30/06/23 16/10/23 to 20/10/23 05/02/24 to 09/02/24	Solar system & Earth features influencing Solar PV Electrical system, Components of a SPV Electrical system, Types, Applications, bill of materials, Test points, Test before & after commissioning. Safety handling; storing; Tools and equipments; Solar panel Mounting skills; Foundation planning and construction skills; Electrical wiring skills; Safety points; Commissioning skills; Maintenance skills
6.2	Solar Thermal Fitter	1	03/07/23 to 07/07/23 30/10/23 to 03/11/23 19/02/24 to 23/02/24	Solar system and planet earth features, Solar architecture, space heating, lighting; Solar agricultural utilities; Solar water heating, Solar cooker, Industrial visit Solar thermal electricity, Periodical monitoring; Preventive maintenance, Corrective maintenance, Document and records
6.3	Renewable Energy Harnessing & saving Electricity	1	17/07/23 To 21/07/23 13/11/23 To 17/11/23 04/03/24 To 08/03/24	Energy conservation and management, Natural resources of energy, Site survey and selection of project, Projects for direct utility, Industrial Visit Megaprojects, Estimation and costing of projects, Sustainability of renewable energy projects

07. ELECTRONICS AND COMMUNICATIONS

Course Co-ordinator : Smt Pooja R Singh

Contact No.: 8547749045

Designation: Training Officer

7.1	Programming & Operation of PLC (Allen Bradley and Siemens)	1	10/04/23 To 14/04/23 22/05/23 To 26/05/23 04/09/23 To 08/09/23 04/12/23 To 08/12/23 08/01/24 To 12/01/24 05/02/24 To 09/02/24	PLC hardware and software aspects, Allen Bradley compact logix configuration, programming using RS logic 5000 and RS logic 500, developing ladder diagrams using different instructions like timer, counters, add, compare, equal to greater than etc. Interfacing real time applications
7.2	HMI Programming (Allen Bradley and Siemens)	1	17/04/23 to 21/04/23 29/05/23 to 02/06/23 15/01/24 to 19/01/24 12/02/24 to 16/02/24	HMI setup and configurations, HMI basic elements, HMI panel overview, Set/Reset Switches, Text meter display, HMI numeric entry and display, date and time, animation signs, Moving background, Alarm handling, historian, program Upload ,Online and offline simulation of HMI
7.3	PIC Microcontroller (16F87X Series) and Applications	1	08/05/23 To 12/05/23 26/06/23 To 30/06/23 29/01/24 To 02/02/24	Introduction to embedded systems. Study of PIC 16F87X series of microcontrollers. Architecture, Addressing modes, Instruction set, memory organization, Interfacing applications
7.4	Microcontroller 8051: Programming and applications	1	01/05/23 to 05/05/23 19/06/23 to 23/06/23 22/01/24 to 26/01/24 11/03/24 to 15/03/24	Introduction to embedded system, 8051 Architecture, addressing, mode: Register addressing immediate addressing, direct addressing, indirect addressing indexed addressing, Groups of instructions, Data transfer, Arithmetic and logical instructions, Programmable peripheral interface-8255, interfacing/Applications
7.5	Electronic Circuit & PCB Design using Proteus	1	24/04/23 to 28/04/23 05/06/23 to 09/06/23 03/07/23 to 07/07/23 11/09/23 to 15/09/23 03/10/23 to 06/10/23	Introduction, Getting started with Proteus, Grid settings , Zoom control, Library and symbol creation, Schematic entry, naming and editing, Thru pin pad creation, SMD footprint creation, PCB routing component placement.

08. INTERNET OF THINGS

Course Co-ordinator: Ms R Malathi

Contact No.: 09448865166

Designation: Training Officer

8.1	Introduction to IOT Basics	1	17/04/23 to 21/04/23 24/07/23 to 28/07/23 30/10/23 to 03/11/23 05/02/24 to 09/02/24	What is IoT (Internet of Things), History of IoT, How IoT works?, IoT Applications, Challenges of IoT, Advantages of IoT, Disadvantages IoT, IoT Best Practices.
8.2	Introduction to Internet of Things(IoT) using Arduino	2	08/05/23 to 19/05/23 03/07/23 to 14/07/23 11/09/23 to 22/09/23 20/11/23 to 01/12/23 19/02/24 to 01/03/24	Basic idea about IOT and IOT things, To work with Micro controllers (Arduino Uno, Nano, Node MCU), Programming basics and libraries of Arduino IDE, Working with Sensors, Relays, Displays, Keypads, Build an IOT product
8.3	IoT Sensors and Devices	1	29/05/23 to 02/06/23 28/08/23 to 01/09/23 18/12/23 to 22/12/23 29/01/24 to 02/02/24	Introduction to various smart agricultural sensors with their working principles, operation, advantages and disadvantages
8.4	Programmimg of IoT using RassberriPi	2	12/06/23 to 23/06/23 02/10/23 to 13/10/23 08/01/24 to 19/01/24	Basic idea about IOT and IOT things, Raspberry Pi introduction and setup, Python for Raspberry Pi, Accessing GPIO pins, control of electronics using GPIO, interfacing of DH 11 sensor, write, publish Programs, Build a IOT product.

09. ELECTRICAL LAB

Course Co-ordinator: Shri. Palani AS

Contact No.: 8297723984

Designation: Training Officer

9.1	Electrical Motors	1	10/04/23 to 14/04/23 31/07/23 to 04/08/23 27/11/23 to 01/12/23 18/03/24 to 22/03/24	Electric Motors-construction, working principle, starting methods, speed control & applications of 3 phase induction motors, 2 speed induction motors, 1 phase motors, DC motors, Servomotor, Stepper motor & Linear motor. Assembling and disassembling of motors. Plugging & Dynamic braking of motors. Trouble shooting in motors. Testing & Maintenance of motors. Testing of motors. Motor protection simulation
9.2	Electrical Motor controls	1	24/04/23 to 28/04/23 14/08/23 to 18/08/23 11/12/23 to 15/12/23 18/03/24 to 22/03/24	Electrical control elements like contactors, over load relays, timers etc. Logic functions in electrical controls. Power and control circuits. DOL, Forward/Reverse and Star-Delta Starters for 3ph Induction motors. Time delay & sequential control circuits. Industrial control circuits. Trouble shooting in control/power circuits & starters. Static control of motors. Logical control of motors using PLC. Motor control using AC/DC Drives.
9.3	Electrical Maintenance	1	08/05/23 to 12/05/23 28/08/23 to 01/09/23 25/12/23 to 29/12/23 25/03/24 to 29/03/24	Purpose & types of Maintenance. Maintenance of Electrical power distribution system. Maintenance of Motors, transformers, starters, switchgears, Diesel generator set, Electrical Sub-station, Circuit breakers, Batteries, UPS, AC plant, Air conditioners. Power supply problems and remedy. Power factor correction. Energy conservation. Earthing-maintenance, measurement of earth resistance. DO's and DON'Ts in Electrical Maintenance.
9.4	Electrical safety	1	22/05/23 to 26/05/23 12/06/23 to 16/06/23 11/09/23 to 15/09/23 08/01/24 to 12/01/24	Electrical Hazards: Electric Shock-Causes, effect, prevention. Burns-causes, effects & prevention. Protection against Electric shock. Earthing. Protective devices like MCB, ELCB/RCCB. Safe procedures in electrical maintenance works. Central Electricity Authority Regulations (CEAR-2010). Lock out and Tag out. Electrical Fire :Causes, prevention, firefighting. Electrical safety. Safety precautions against electrical accidents. First aid. Case studies
9.5	Protective relays & Circuit Breakers	1	05/06/23 to 16/06/23 25/09/23 to 06/10/23 22/01/24 to 02/02/24	Protection scheme in Generation, Transmission & Distribution systems. Electro-Mechanical Relays, Static or Micro-controlled based relays, Numerical Relays. PSM, TMS, Characteristic

				Setting/programming, fault simulation, resetting & study of characteristics of Overvoltage, Under voltage Relays. Over Current, Reverse power and Earth fault relays. Frequency relay, negative sequence relay, Differential relay, Thermal Relay, Buchholz Relay. CT&PT. Protection simulation study of Generators, Motors, Transformers.
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10. INFORMATION TECHNOLOGY

Course Co-ordinator: Smt P Narmada

Contact No: 9945778353

Designation: Training Officer

10.1	Information Security & Cyber LAW	1	05/06/23 to 09/06/23 27/11/23 to 01/12/23	Information Security, Security services, mechanism & attack, physical & system security, Internet & web parity, Network security fundamentals, IT Act & Cyber Law, Case study.
10.2	CMS using word press	1	11/09/23 to 15/09/23 04/03/24 to 08/03/24	Introducing word press, creating blog content, pages, media, and importing/exporting content, plugins - what they are and why you need them
10.3	Introduction to API's	1	03/07/23 to 07/07/23 25/12/23 to 29/12/23	Representational State Transfer (REST), Google APIs, HTTP protocols, Software Programs
10.4	Introduction to Continuous Development	2	17/07/23 to 28/07/23 08/01/24 to 19/01/24	Explain Infrastructure as Code, describe tools used, and create Infrastructure as Code scripts using Terraforming. Describe cloud platforms and automation, and automatic CI/CD tasks using Jenkins and GitHub. Define Continuous Integration (CI) and list some examples of tools used for CI. Describe the process of Continuous Development (CD), run test cases, and deploy to cloud using tools including Chef and Puppet
10.5	Mobile Application Development	2	10/08/23 To 18/08/23 29/01/24 To 09/02/24	Android- Background & Architecture, Installing SDK & Starting Android, Creating Applications using Android, Creating User Interface, Concepts of Intents, Using Internet Resources Through Android, Broadcast Receivers, Files & Preferences, Concept of maps and Location Based Services, Using Advance Features-camera, media-player
10.6	GIT AND GIT HUB	1	28/08/23 To 01/09/23 19/02/24 To 23/02/24	Git and git hub
10.7	Web Designing	2	03/04/23 To 14/04/23 25/09/23 To 06/10/23 18/03/24 To 29/03/24	Introduction to Internet & Web, HTML,DHTML, JAVA Script, Flash Photoshop, CSS Project on Website Development
10.8	Network Administration	2	24/04/23 To 05/05/23 16/10/23 To 27/10/23	Computer Network, Topology, Protocol, Networking Hardware, Network configuration, Network Addressing, Routing and routed Protocols, VLAN, ACL, Server installation and troubleshooting
10.9	Advance Web Development using PHP	2	15/05/23 To 26/05/23 06/11/23 To 17/11/23	Introduction to PHP, Introduction to AJAX, OOPs concept in PHP, Concept in MySQL Database, Data Base programming using PHP and MySQL, concept of CMS
10.10	Introduction to IDE's	1	19/06/23 To 23/06/23 11/12/23 To 15/12/23	VS CODE, NOTEPAD++ AND PYCHARM etc.

11.Industrial Engineering

Course Co-ordinator: Swapndeeep Chouhan

Contact No: 8878555764

Designation: Assistant Director

11.1	Supervisory Development Program	2	03/07/23 To 14/07/23 31/07/23 To 11/08/23 09/10/23 To 20/10/23 08/01/24 To 19/01/24	Communication –Time Management- Quality Circles- Motivation- Leadership Skills- Team Work- Stress Management-Logical Thinking Skills- Industrial Safety & Regulations
11.2	Project Management	1	28/08/23 TO 01/09/23 06/11/23 TO 10/11/23 26/02/24 TO 01/03/24	Project Management – Role of Project Manager Project Planning- Network Techniques- CPM & PERT – Crashing- Project Management Tools

12.Communication Lab

Course Co-ordinator: Ms S Meghana

Contact No: 9542375757

Designation: Assistant Director

12.1	Basic Electronics and Application in Communication System	2	17/04/23 to 28/04/23 05/06/23 to 16/06/23 27/07/23 to 04/08/23 25/09/23 to 06/10/23 20/11/23 to 01/12/23	DC power supplies, Basic Linear IC, Analog and Digital Circuits, Amplifiers, Oscillators in communication system.
12.2	Communication System(Mobile Communication and Fibre Optics)	2	08/05/23 to 19/05/23 03/07/23 to 14/07/23 28/08/23 to 08/09/23 23/10/23 To 27/10/23 06/11/23 To 10/11/23	Mobile Communication and Fibre Optics

13.Mechatronics Lab

Course Co-ordinator: Ms D Subhasree

Contact No: 9986685220

Designation: Deputy Director

13.1	Programming and operation of S7-300 PLC	1	04/09/23 To 08/09/23 16/10/23 To 20/10/23 13/11/23 To 17/11/23 11/12/23 To 15/12/23 08/01/24 To 12/01/24 05/02/24 To 09/02/24 26/02/24 To 01/03/24	The course provides detailed grounding in PLC concepts such as inputs/outputs, ladder logic, timers, counters, comparators, analog blocks, project exercises and fault finding, which is essential for maintaining uptime and performance of machines/processes.
13.2	Scada using WinCC	1	07/08/23 To 11/08/23 11/09/23 To 15/09/23 30/10/23 To 03/11/23 20/11/23 To 24/11/23 18/12/23 To 22/12/23 22/01/24 To 26/01/24 12/02/24 To 16/02/24 04/03/24 To 08/03/24	System overview of SIMATIC WinCC, Creating WinCC projects, data structure, creating screens, dynamization of objects in screens using tag connection, configuration dialog, dynamic wizard, animation, authorization levels, Tag logging ,Alarm logging, Online Trend control.

GENERAL INFORMATION

Course Timings: Monday to Friday from 09:00AM to 05:30 PM

MINIMUM ENTRY QUALIFICATION:

Diploma or BE or NTC/NAC in relevant branch / Trade. Qualification is relaxable for candidates having experience in the concerned field and if sponsored by industry.

TAILOR MADE COURSES(TMCs)

Apart from the scheduled short term program, National Skill Training Institute, Bengaluru also offers customized tailor made courses in technical as well as non-technical areas. This custom made short term programs are conducted as per the needs of the industries/establishments, the contents, duration and date of such programs are finalized in consultation with the industry or establishment.

Some of our clients are:



Rail Coach Factory
Serving customers with a smile



FEE DETAILS:

1. Application & Registration Fee per course: Rs. 100/-
2. Gymkhana Fee per course:Rs. 15/-
3. Accommodation / Hostel Rent: Rs. 100/- per day per participant, on first come first serve basis (subject to availability).
4. Mess facilities are available in Hostel managed by a private contractor. Necessary payments to be paid in cash directly to the Contractor.

TUITION FEES *(Likely to be revised)

COURSES	CATEGORY	TUITION FEE*(Likely to be revised)
Regular / Scheduled Courses	Candidates sponsored from Medium and large scale Industries in both Public and Private Sector	Rs. 2,000/- per trainee per week
	Candidates sponsored from Small-Scale Industries & Private candidates.	Rs. 1,000/- per trainee per week
	Candidates nominated by Government department such as Railways, Defence, etc.	Rs. 1,250/- per trainee per week
	Candidates sponsored from Educational Institutes like Polytechnic/Engg.Colleges and other related Technical Institutions, etc.	Rs. 1,000/- per trainee per week
Tailor-made courses (Min. 10 Participants)	Candidates sponsored by Medium and Large Scale Industries in both Public and Private Sector	Rs. 4,000/- per trainee per week
	Candidates nominated by Government department such as Railways, Defence, etc.	Rs. 2,500/- per trainee per week
	Candidates sponsored from Educational Institute like polytechnic, Engg.Colleges and other related Technical Institutions, etc. , and Small Scale Industries	Rs. 2,000/- per trainee per week

IMPORTANT INSTRUCTIONS FOR PARTICIPANTS AND SPONSORING AUTHORITES APPLYING FOR SHORT TERM ANDTAILORMADE COURSES:

- a. Application forms can be obtained from the Institute directly or downloaded from our website: www.nstibengaluru.dgt.gov.in
- b. Attested copies of educational qualification & experience to be enclosed along with the application. Nominees sponsored by SSI Should enclose a copy of valid SSI Registration Certificate.
- c. Application with necessary enclosures should reach the Institute at least 4 weeks prior to the commencement of the scheduled course.
- d. Preference will be given to candidates from Industries/Government Organizations/Institutions.

- e. Application & Registration fee once paid will not be refunded at any cost.
- f. Nominees should report at the Institute with the intimation / confirmation letter on the day of commencement of the course at 9 AM.
- g. If Monday happens to be a holiday, the scheduled courses will commence on next working day and if Friday happens to be a holiday, the scheduled course will conclude on the previous working day.
- h. The Director may change/cancel any training program without assigning any reason.
- i. Hostel facilities are limited & accommodation is allotted on first come first serve basis.
- j. Under any circumstances participants accompanying family members will not be provided room in the hostel. Such requests for family accommodation will not be entertained.
- k. The courses will conclude at 5.00 PM on the last working day of the course. Certificates & Relieving Orders will be issued only after 5:00PM on the last day.

LOCATION: The Institute is located near Kanteerava Film Studio on the Outer Ring Road and way to Peenya.

Bus Routes:

From Majestic: 80C, 80F, 98E, 252F, 252H
From K. R. Market: 77A, 77F, 251E,
From Shivajinagar: 94A

To reach at Kanteerava Studio signal Bus stop

Nearest Metro Station: Goraguntepalya (Green Line)

CENTRE OF EXCELLECE FACILITIES

-ELECTRICAL LAB
-WELDING LAB
-CNC LAB

-HYDRAULICS AND PNEUMATIC LAB
-ELECTRONICS LAB
-IOT LAB





For further details contact:

The Regional Director

NATIONAL SKILL TRAINING INSTITUTE

Outer Ring Road, Off Tumkur Road, Yeshwantpur Post,
Bengaluru-560 022

Ph: 080-29724034 (Training section)

e-mail:nsti-bengaluru1@dgt.gov.in

For more details please visit: www.nstibengaluru.dgt.gov.in