



**2025 INDUSTRIAL, TECHNICAL AND OPERATIONAL TRAININGS
FOR ENGINEERS, TECHNOLOGIST, TECHNICIANS AND CRAFTSMEN**

We are excited to extend to you an exclusive opportunity to participate in our groundbreaking series of workshops and training programs scheduled throughout the year. Organised by the partnership between the prestigious **Nigerian Society of Engineers (NSE)** and **Citadel for Technological & Engineering Dev (CITED)**, these events are tailored to meet the needs of engineers, technologists, technicians, and craftsmen.

Our comprehensive curriculum covers a wide array of topics, ranging from cutting-edge technologies to innovative management strategies, all designed to equip professionals with the skills and knowledge needed to thrive in today's dynamic industrial landscape. *The sessions will be conducted weekly from January to December 2025, providing a unique platform for networking, idea exchange, and skill enhancement.*

Week	Dates	Course Title	Description
1	07th - 09th January	<i>Advanced Power Systems Analysis and Design</i>	Focuses on modern power system architectures and advanced analysis techniques.
2		<i>Renewable Energy Integration in Electrical Grids</i>	Explores strategies for incorporating solar, wind, and other renewable sources into existing power networks.
3	14th - 16th January	<i>Smart Grid Technologies and Implementation</i>	Covers the latest developments in intelligent electrical distribution systems.
4		<i>High Voltage Engineering and Insulation Coordination</i>	Addresses design and maintenance of high voltage equipment and systems.
5	21st - 23rd January	<i>Industrial Automation and Control Systems</i>	Examines the principles and applications of automated control in industrial settings.
6		<i>Electric Motor Drives: Advanced Control Techniques</i>	Delves into sophisticated motor control strategies for improved efficiency and performance.
7	28th - 30th January	<i>Power Electronics in Modern Electrical Systems</i>	Studies the application of power electronic devices in various electrical engineering contexts.
8		<i>Energy Efficiency and Management in Industrial Facilities</i>	Focuses on strategies to optimize energy usage and reduce costs in industrial environments.
9	04th - 06th February	<i>Electrical Safety and Compliance in Industrial Settings</i>	Covers regulations, best practices, and risk assessment in electrical safety.
10		<i>Advanced HVAC System Design, Control and Optimization</i>	Explores cutting-edge heating, ventilation, and air conditioning system designs.
11	11th - 13th February	<i>Mechanical Systems Reliability and Predictive Maintenance</i>	Teaches techniques for enhancing system reliability and implementing predictive maintenance strategies.
12		<i>Fluid Dynamics and Pumping Systems Engineering</i>	Covers advanced concepts in fluid mechanics and their application in pumping systems.
13	18th - 20th February	<i>Robotics and Automation in Manufacturing</i>	Examines the integration of robotic systems in modern manufacturing processes.
14		<i>Advanced Materials in Mechanical Engineering</i>	Explores the properties and applications of novel materials in mechanical design.
15	25th - 27th February	<i>Thermal Management in Industrial Systems</i>	Addresses heat transfer and cooling strategies in industrial equipment and processes.
16		<i>Vibration Analysis and Control in Mechanical Systems</i>	Focuses on identifying, analyzing, and mitigating vibrations in mechanical equipment.
17	03rd - 05th March	<i>Industrial Wastewater Treatment Systems Operation</i>	Focuses on the operation and maintenance of industrial wastewater treatment facilities.
18		<i>Preventive Maintenance Scheduling and Implementation</i>	Addresses strategies for developing and executing effective PM programs
19	10th - 12th March	<i>Advanced Blueprint Reading and Technical Drawings</i>	Covers interpretation of complex engineering drawings and schematics
20		<i>Rigging and Lifting Techniques for Industrial Applications</i>	Focuses on safe and efficient methods for heavy lifting in industrial environments
21	17th - 19th March	<i>Fiber Optic Installation and Testing for Technicians</i>	Covers the installation, splicing, and testing of fiber optic systems.
22		<i>Advanced Concrete Technology and Applications</i>	Explores innovative concrete formulations and construction techniques.
23	24th - 26th March	<i>Bridge Engineering: Design, Construction, and Maintenance</i>	Covers all aspects of bridge engineering from conception to long-term maintenance.
24		<i>Sustainable Urban Planning and Infrastructure Development</i>	Focuses on creating environmentally friendly and resilient urban spaces.
25	01st - 3rd April	<i>Water Resources Management and Hydraulic Engineering</i>	Addresses water supply, treatment, and distribution systems engineering.
26		<i>Transportation Systems Engineering and Traffic Management</i>	Covers the design and optimization of transportation networks and traffic flow.
27	08th - 10th April	<i>Industrial Pump and Compressor Operations and Maintenance</i>	Addresses the maintenance and troubleshooting of various pump and compressor types.
28		<i>Advanced Construction Project Management</i>	Explores modern techniques in managing complex construction projects.
29	15th - 17th April	<i>Environmental Impact Assessment in Civil Engineering Projects</i>	Covers methods for evaluating and mitigating environmental impacts of large-scale projects.
30		<i>Mechanical Drives and Power Transmission Systems</i>	Covers the installation and maintenance of various mechanical drive systems.
31	22nd - 24th April	<i>Lean Manufacturing Principles and Implementation</i>	Focuses on optimizing production processes and reducing waste in manufacturing.
32		<i>Advanced Troubleshooting Techniques for Maintenance Professionals</i>	Focuses on systematic approaches to complex problem-solving in maintenance.
33	06th - 08th May	<i>Quality Control and Six Sigma in Manufacturing</i>	Explores statistical process control and quality improvement methodologies.
34		<i>Industry 4.0 and Smart Manufacturing Technologies</i>	Examines the integration of IoT, AI, and data analytics in manufacturing.
35	13th - 15th May	<i>Supply Chain Optimization and Logistics Management</i>	Addresses strategies for improving supply chain efficiency and responsiveness.
36		<i>Sustainable Manufacturing Practices and Green Production</i>	Focuses on environmentally friendly manufacturing processes and waste reduction.
37	20th - 22nd May	<i>Advanced Welding Techniques, Technologies and Metallurgy</i>	Covers modern welding techniques and material science for manufacturing.
38		<i>Industrial Ergonomics and Human Factors Engineering</i>	Addresses the design of workspaces and processes for optimal human performance and safety.
39	27th - 29th May	<i>Manufacturing Process Simulation and Optimization</i>	Explores the use of computer simulations to improve manufacturing processes.
40		<i>Pipefitting and Plumbing Techniques for Industrial Applications</i>	Addresses advanced pipefitting skills for industrial environments.
41	03rd - 05th June	<i>Facilities Planning and Layout Optimization</i>	Covers strategies for efficient space utilization and workflow in industrial facilities.
42		<i>Building Information Modeling (BIM) for Facility Management</i>	Explores the use of BIM technologies in managing and maintaining buildings.
43	10th - 12th June	<i>Energy Management Systems in Commercial and Industrial Facilities</i>	Focuses on implementing and optimizing energy management strategies.
44		<i>HVAC System Maintenance and Troubleshooting</i>	Covers advanced techniques for maintaining and repairing complex HVAC systems.
45	17th - 19th June	<i>Asset Management and Lifecycle Cost Analysis</i>	Addresses strategies for managing facility assets and optimizing their lifecycle costs.
46		<i>Smart Building Technologies and Integration</i>	Explores the implementation of IoT and automation in building management.
47	24th - 26th June	<i>Fire Safety Systems Design and Management</i>	Covers fire prevention, detection, and suppression systems in various facility types.
48		<i>Sustainable Facility Management Practices</i>	Focuses on environmentally friendly approaches to facility operation and maintenance.
49	08th - 10th July	<i>Facility Security Systems and Risk Management</i>	Addresses physical and cyber security concerns in facility management.
50		<i>Waste Management and Recycling in Industrial Facilities</i>	Covers strategies for efficient waste handling and recycling in industrial settings.
51	15th - 17th July	<i>Predictive Maintenance Strategies for Industrial Equipment</i>	Focuses on using data analytics and IoT for proactive maintenance.
52		<i>Root Cause Analysis and Problem Solving in Industrial Maintenance</i>	Covers systematic approaches to identifying and resolving maintenance issues.
53	22nd - 24th July	<i>Lubrication Management and Tribology in Industrial Systems</i>	Addresses the science of friction, wear, and lubrication in industrial applications.
54		<i>Electrical Troubleshooting and Maintenance Techniques</i>	Covers advanced methods for diagnosing and repairing electrical systems.

55	29th - 31st July	Pneumatic and Hydraulic Systems Maintenance	Focuses on maintaining and optimizing fluid power systems in industrial settings.
56		Computerized Maintenance Management Systems (CMMS)	Explores the implementation and use of CMMS for efficient maintenance operations.
57	05th - 07th August	Condition Monitoring and Vibration Analysis	Covers techniques for assessing equipment health through vibration and other indicators.
58		Industrial Piping Systems Design, Installation, Maintenance and Repair	Addresses maintenance strategies for complex piping networks in industrial facilities.
59	12th - 14th August	Boiler and Pressure Vessel Maintenance and Inspection	Focuses on safety and efficiency in maintaining high-pressure systems.
60		Maintenance Planning and Scheduling Optimization	Covers strategies for efficient allocation of maintenance resources and activities.
61	19th - 21st August	Advanced Technical Report Writing for Engineers	Focuses on developing clear, concise, and effective technical documentation skills.
62		Project Management for Engineering Professionals	Covers principles of project management tailored to engineering contexts.
63	26th - 28th August	Leadership and Team Management in Technical Environments	Addresses skills for leading and motivating teams in engineering and technical fields.
64		Data Analysis and Visualization for Engineers	Explores techniques for interpreting and presenting complex data in engineering applications.
65	02nd - 04th September	Effective Communication Skills for Technical Professionals	Focuses on improving verbal and written communication in technical contexts.
66		Innovation and Creative Problem Solving in Engineering	Covers methods for fostering innovation and creative thinking in engineering challenges.
67	09th - 11th September	Fleet Management – Effective Practices For Public and Private Fleets	Covers Fleet Management – Effective Practices For Public and Private Fleets
68		Negotiation Skills for Engineers and Technical Managers	Focuses on developing effective negotiation strategies in technical environments.
69	16th - 18th September	Risk Assessment and Management in Engineering Projects	Covers techniques for identifying, analyzing, and mitigating risks in engineering projects.
70		Time Management and Productivity for Technical Professionals	Addresses strategies for improving efficiency and output in engineering roles.
71	23rd - 25th September	Principles of Occupational Health and Safety Management	Covers Principles of Occupational Health and Safety Management
72		Precision Measurement and Calibration for Technicians	Focuses on accurate measurement techniques and instrument calibration.
73	30th September - 02nd October	PLC Programming and Troubleshooting for Industrial Applications	Covers programmable logic controller programming and maintenance.
74		Design, Construction and Supervision of Road Construction/Maintenance Works	Covers Design, Construction and Supervision of Road Construction/Maintenance Works
75	07th - 09th October	Industrial Electrical Systems Installation and Maintenance	Focuses on best practices for installing and maintaining industrial electrical systems.
76		Mechanical Systems Assembly and Alignment Techniques	Covers precision assembly and alignment of complex mechanical systems.
77	14th - 16th October	Cost Engineering: Effective Estimation and Cost Control of Technical Projects	Covers Cost Engineering: Effective Estimation and Cost Control of Technical Projects
78		Industrial Instrumentation and Process Control	Focuses on instrumentation techniques and process control in industrial settings.
79	21st - 23rd October	Selecting, Managing, and Sustaining Continuous Improvement Projects	Selecting, managing, and sustaining continuous improvement projects is a crucial aspect of maintenance management.
80		Maintenance Management Best Practices: Systems, Tools & Techniques	This course covers various best practices, including systems, tools, and techniques to enhance maintenance performance.
81	28th - 30th October	Total Productive Maintenance (TPM) & 5S	Covers efficiency and organization in maintenance processes.
82		Tools & Strategies to Maximise Maintenance Performance	Tools and strategies are also discussed to maximize maintenance efficiency and effectiveness.
83	04th - 06th November	Structural Steel Design (Trusses, Beams, Columns and Composed Sections)	course delves into structural steel design, covering trusses, beams, columns, and composed sections.
84		Best Practice in Sewage and Effluent Treatment Technologies	provides insights into sewage and effluent treatment technologies, ensuring proper waste management.
85	11th - 13th November	LV MM HV Circuit Breakers (Switchgear) Inspection, Maintenance, Design, Repair and Troubleshooting	the course covers LV MM HV Circuit Breakers (Switchgear) inspection, maintenance, design, repair, and troubleshooting.
86		Industrial Building Designs and Renovation (A to Z Steps to Design Steel Buildings)	Covers comprehensive approach to designing steel buildings.
87	18th - 20th November	Concrete Structure Designing for Industrial Project (A Practical Way for Reinforced Concrete Design)	Concrete structure design for industrial projects is also covered, offering a practical guide to reinforced concrete design.
88		Maintenance and Troubleshooting Of UPS Systems and Battery Power Supplies	Covers maintenance and troubleshooting of UPS systems and battery power supplies.
89	25th - 27th November	Basic Principles of Autonomous Maintenance and Continuous Improvement	Covers autonomous maintenance and continuous improvement.
90		Chilled Water Systems, Operations Maintenance and Troubleshooting	Covers chilled water systems, operations maintenance, and troubleshooting
91	02nd - 04th December	Circuit Breakers and Switchgear Inspection, Maintenance, Design, Repair and Troubleshooting course	Covers circuit breakers and switchgear inspection, maintenance, design, repair, and troubleshooting.
92		Improving Engineering Projects Supervision, Monitoring, Evaluation and Management	Improving Engineering Projects Supervision, Monitoring, Evaluation, and Management
93	09th - 11th December	Design, Construction and Maintenance of Low Cost Water Supply Systems/Scheme	Design, Construction, and Maintenance of Low-Cost Water Supply Systems/Schemes
94		Spare Part Management/Inventory Management Training	Spare Part Management/Inventory Management Training
95	16th - 18th December	Rotating Equipment/ Start-up, Operation, Maintenance & Troubleshooting	Rotating Equipment/ Start-up, Operation, Maintenance & Troubleshooting
96		Configuring and Testing Smart Field Devices	Configuring and Testing Smart Field Devices

Our workshops have been meticulously crafted to address the challenges faced by organisations in the ever-changing economic landscape. With a combined experience of over three decades, NSE and CITED guarantee the highest quality of education and training for your team.

Moreover, we offer the flexibility of in-house and customised training programs, specifically tailored to your organisation's unique requirements. These bespoke sessions can be conducted at your premises, ensuring maximum convenience and relevance for your team.

Workshop Fees

Virtual Learning --- **N220,000 per participant**
In-Class Learning --- **N270,000 per participant**

We are confident that your participation in these workshops will not only enhance your professional skills but also contribute significantly to the success of your organisation.

To register your team or inquire about our customised training options, please do not hesitate to reach out to us. We eagerly anticipate the opportunity to welcome you and your colleagues to our enriching programs



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