

Schedule for Classroom Training June 2022 Kolkata For nominations Email: cisat.nagpur@gmail.com; Call Vikas +91-7709012815; 8669546332

Dates of Training are proposed. Confirmation post nominations only. Min 6/8 participation required for all trainings.

| Sr No | Day /s | Date | Subject/Topic | Morning – 10.00 AM to 13.00 noon | Evening – 2:00 PM to 5.00 PM | Charges + 18% GST |
|--|--------------|------------------------|---|--|--|--------------------------|
| Electrical Engineering Maintenance; Instrumentation and Control Engineering | | | | | | |
| 1 | Day 1 | 2-4 June 2022, Kolkata | Relay Setting, Relay Parameter, Relay Coordination, Advanced Power System Protection, Transformer and Motor Protection | Concept of Relay Setting and relay Parameters. TMS, PMS and other. | Relay Coordination and Relay setting, Examples, Q&A. CT/PT requirement etc. | INR 27000/- per head |
| | Day 2 | | | Transformer Protection and Relay coordination | Transformer Protection (REF, Differential, OC, S/C, | |
| | Day 3 | | | Line protection, Distance protection, Motor Protection, CBM, Q&A etc. | | |
| 2 | Day 1 | 6-7 June Kolkata | HT Motor and Transformer; Operation, Maintenance, Protection and CBM | Review of Objective, Operation & Maintenance. Starting and Failure, Protection and CBM. | Motor Protection, Relay setting, Case study and discussion | INR 20000/- per head |
| 3 | Day 1 & 2 | 8-9 June Kolkata | Electrical Drives: | Complete Function, Drive Components, | Control, Failure, Maintenance, Parameters and Hands ON | INR 20000/- per head |
| 4 | Day 1/2 | 10-11 June Kolkata | Electrical Safety, HIRA, Arc Flash, Auditing, International Standards (NFPA 70E, NESC, IEEE, IE), Hazardous Areas (Mining, O&G, Chemical) and mitigation. | Introduction to Electrical Safety, Electrical Fire, Electrical safety in Explosive areas, HIRA | Safety implementation procedure and requirements. | INR 20000/- per head |
| | | | | Arc Flash and Mitigation, Arc Flash Calculation, Various Standards of safety. | Management of RISK, Audit and Accident Investigation, Earthing | |
| 5 | Day 1, 2,3,4 | 13-16 June Kolkata | 4 Days Training on: PLC Engineering Applications, SCADA & HMI (As per participants Requirement) | PLC- Programming, Maintenance, troubleshooting; PLC: Any of (Mitsubishi, ABB, Delta, Siemens, Allen Bradley(Rockwell) L&T). Where as query will be answered. | SCADA: Programming, Alarms, History, Trends etc, Scada: Intoch, Rs View32, Elipse HMI: Mitsubishi, Delta ABB Robot , ABB DCS | INR 30000/- per head |
| 6 | Day 1 | 16-18 June, Kolkata | Testing of Electrical Equipments , O&M, and Condition Based Maintenance. | O&M of electrical equipments (Transformer, Motor, LA, CT, PT, Cable etc) CB (SF6, ACB and VCB) | Testing of Equipments on site during commissioning and regular maintenance. | INR 30000/ participation |
| | Day 2 | | | CBM and Best Maint Practices. | Protection System applicable. | |
| | Day 3 | | | | | |

Mechanical Engineering Maintenance Techniques, CBM, Energy Saving, Lubrication etc at Kolkata

| | | | | | | |
|----|-------|------------------------------|---|--|--|--|
| 7 | Day 1 | 2-4 June Kolkata | 3 Days Training Programme on Industrial Rotating Machineries in a Plant: Operation, Maintenance, CBM, Performance and Efficiency Improvement Pumps, Air Compressors, Bearings and Lubrication techniques. | Module 1: Pumps - Operation and Maintenance: <ul style="list-style-type: none"> •Pumps - Principles and Characteristics •Pump Details and Materials •Selection of Pumps •Routine Maintenance of centrifugal Pumps •Pumps - Operation, Maintenance and Trouble Shooting •Energy Saving in Centrifugal Pumps •Pump shaft Couplings – Types and Method of Alignment | Module 4: Bearings- Types, Selection & it's fitting and Failure Analysis <ul style="list-style-type: none"> •Anti-friction Bearings- Types •Care in Bearings fitting and dismantling •Bearing Failure Analysis | INR 27000/ participation + 18% GST |
| | Day 2 | | | Module 2: Gears & Gear Boxes <ul style="list-style-type: none"> •Type of Gears •Gear Teeth Construction Details •Gears Failure | Module 5: Air compressors & Blowers –Operation and Maintenance <ul style="list-style-type: none"> •Selection and Application of Air Compressors •Reciprocating Air Compressor •Screw Compressors •Centrifugal Air Compressor; Overview of API 610 and API 674 | |
| | Day 3 | | | Module 3: Air Compressors <ul style="list-style-type: none"> •Maintenance of Air Compressors •Compressed Air System and Compressor Efficiency •Air Dryers Energy Conservation and How to save energy? •Review and Feed back | Module 6: <ul style="list-style-type: none"> •Type of Lubricants & Selection of Lubricant •Handling, Storage and Application of lubricants •Bearing Lubrication & Method of Applying Lubricants. | |
| 8 | Day 1 | 6-8 June 2022, Kolkata | Power and Energy Management in Industrial Utilities: Energy Auditing, Power saving Techniques and Management | 1.Energy management and audit action planning- calculation and energy saving in detail | 2.Energy efficiency of electrical power distribution systems, Fans, Motors, Lights etc. | INR 27000/ participation |
| | Day 2 | | | 3.Energy efficiency of Pumping systems, Compressors. | 4.Energy efficiency of Air Conditioning and Refrigeration Systems. | |
| | Day 3 | | | 5.Power factor Improvement Techniques and applicable approach. Case Studies. | 6.Approach towards conducting energy efficiency study of equipment`s. | |
| 9 | Day 1 | 6-7 June Kolkata | "Advances in Lubrication and Lubricants" | Session: I <ul style="list-style-type: none"> · Introduction · Basics of Lubrication · Why Lubricate Machines · Types of Lubricants · Lubricant as Maintenance kit | Session 2 : · Oil vs. Grease Lubricants <ul style="list-style-type: none"> · Classification and source of Base Oil · Characteristics of Base oil · Additives and Role & Type of Additives · Grease as Lubricant · 5 major Tribological Tests for Grease and its significance · How grease fails and what to look for · Q&A Session | INR 18000/Head |
| | Day 2 | | | Session 3: Grease Compatibility <ul style="list-style-type: none"> · Effect of over greasing · Fundamental of Industrial Oils (Four major Types) and Performance Parameters / Test Standards · Understanding basic performance characterises for different lubricating oil · Factors affecting performance Failure mode of Lubricants | Session: 4 <ul style="list-style-type: none"> · Lubrication Systems · A few Case Study · Sources of Contamination · Storage and Handling · Safety and Best Practices · Q&A Session · Review | |
| 10 | Day 1 | 10-11June | Hydraulics and Pneumatics; O&M, CBM, | Hydraulics and Industrial Application: An overview, Main Components of Hydraulics | Hydraulics Pumps, Cylinder, Actuators and Valves | INR 20000/- |

| | | | | | | |
|----|-------|-----------------------------|---|--|--|-----------------------------------|
| 10 | Day 2 | Kolkata | Faults and remedies | Reading of Hydraulics Drawing; O&M | Hydraulics Oil, Oil Contamination, Leakage, Q&A, Case Studies | per head |
| 11 | Day 1 | 13-15 June at Kolkata | World Best Maintenance Strategies, Practices, Effective Predictive, Preventive and Condition Based Maintenance Techniques | Maintenance Concept – Basics; Concept of Asset Management | Types of Maintenance – Selection Strategy; Concept of CBM and RCM | INR 34500/- per head |
| | Day 2 | | | Equipment Criticality Analysis; Concept of FMEA | CBM Techniques; NDT Techniques and MCA | |
| | Day 3 | | | NDT Techniques | Case Study | |
| 12 | Day 1 | 17-18 June 2022, Kolkata | Pump and Air Compressor: Operation, Maintenance, Troubleshooting and PPMT; Efficiency Improvement Techniques | Pumps - Operation and Maintenance: v Pumps - Principles And Characteristics v Pump Details and Materials; v Selection of Pumps v Routine Maintenance of centrifugal Pumps v Pumps - Operation , Maintenance and Trouble Shooting v Energy Saving in Centrifugal Pumps; v Pump shaft Couplings – Types and Method of Alignment | v Type of Lubricants & Selection of Lubricant v Handling, Storage and Application of lubricants v Bearing Lubrication & Method of Applying Lubricants. | INR 20000/- per head |
| | Day 2 | | | Bearings; Gears & Gear Boxes; Air compressors & Blowers –Operation and Maintenance | Air Compressors v Maintenance of Air Compressors v Compressed Air System and Compressor Efficiency, Air Dryers Energy Conservation and How to save energy? | |
| 13 | Day 1 | 23-25 June (Mum or Kolkata) | “Bearing Maintenance Technology, Vibration Analysis Technology and Precision Shaft Alignment” | Day 1: Training Programme on “Bearing Maintenance” • Basics of Bearing • Bearing Selection Criteria • Video Clips /Movies on Practical Mounting & Dismounting Of Bearings • Bearing Lubrication • Introduction to Various Bearing Failures, Discussion on Causes of Bearing Failure • Discussion on Corrective Action to be taken to minimize bearing failure to enhance Bearing Life. | • Pre-Alignment Checks • Soft Foot Concept • Alignment Methods • Video /Movie Clips on Precision Shaft Alignment • practical’s on Real Machinery with Laser Alignment Tool Kit. | INR 30000/participation + 18% GST |
| | Day 2 | | | Day 2: Training Programme on “Precision Shaft Alignment” • Alignment Definitions & Importance of Alignment • Types of Misalignment & Detection of Misalignment with Condition Monitoring Technology | Day 3: Training Programme on “Vibration Analysis Fundamentals” • Fundamentals of Machinery Vibrations • Vibration Standards for Various Equipment’s according to ISO 101816 • Spectrum Analysis • Analysing Typical Machinery Problems • Video /Movie Clips on Vibration Data Collection • Practical’s with FFT Analyser on Real Machinery | |
| | Day 3 | | | | | |