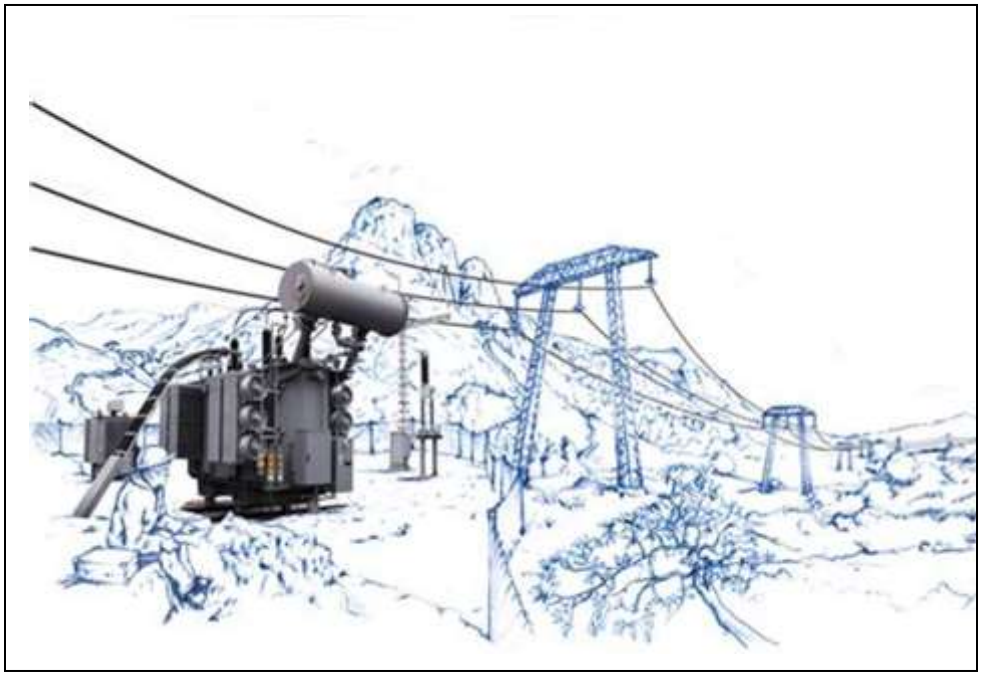
Centre for Industrial Solutions and Advanced Training

TESTING OF ELECTRICAL EQUIPMENT'S: O&M, PROTECTION AND ADVANCED CONDITION BASED MONITORING

16-18 SEPT 2019 AT NAGPUR



3 Days Training Program on

TESTING OF ELECTRICAL EQUIPMENT'S: O&M, PROTECTION AND ADVANCED CONDITION BASED MONITORING

16-18 SEPT 2019 AT NAGPUR

Course Objective:

The participants will be well informed about various Electrical equipments in Industries, Faults, O&M techniques, also learn about various diagnostic Testing methods like: Offline & Online testing and condition based monitoring techniques, high level test like Motor Current and Torque Signature, Acoustic Emission, Surge Testing (IEEE522), Tan Delta & Capacitance Measurement, Partial Discharge Measurement, Dielectric Response Analysis and SFRA. The latest VLF (Very Low Frequency) HIPOT will be discussed in comparison to DC HIPOT and AC HIPOT Testing as per IEEE 433. We will discuss about switchgear and protection system.

Who can attend:

Electrical / Manager / Supervisor, Application Engineer, Condition Monitoring Engineer, Design Engineer, Maintenance Engineer /Manager/Supervisor/Reliability Engineer/Manager/ Supervisor

Prerequisite: Basic knowledge of Electrical Equipment's and experience in maintenance.

Delivery Methodology:

- Introduction and Objective Setting
- Pre and Post Test,
- Knowledge Presentations,
- Assignments & Exercise,
- Hands on as available.
- Feedback and Assessment

Registration Details:

Dates of the program: 16-18 Sept 2019 at Nagpur

Participation fees: **Nonresidential Participation Fees: INR 30000/delegate (plus GST@18%; Training program includes training material hard copies, Tea, Lunch & snack)**

Payment: ECS/NEFT/DD in favor of "Centre for Industrial Solutions and Advanced Training" Payable at Nagpur, Maharashtra, India (For NEFT/ECS). Account No: 0509102000003353 Bank: IDBI, Wardha- 442001, MS, India; IFSC Code: IBKL0000509; Swift Code IBKLINBBNGP; MICR Code 442259001.

Venue:

***We prefer on line Registration through our web* www.cisat.co.in or call/email/sms**

Vikas - 00-91-7709012815; 8669546332; Rupali@cisat.co.in; vikas@cisat.co.in; cisat.nagpur@gmail.com;

With Best Regards & Thanks,

Mrs. Rupali, Director - Business Development.
Centre For Industrial Solution and Advanced Training
Web: www.cisat.co.in; Email: rupali@cisat.co.in; **cisat.nagpur@gmail.com** ; Contact: **+91- 7709012815**

Delivery Schedule: 3 Days Training Programme on Testing of Electrical Equipment's: O&M, Testing, Protection and Advanced Condition Based Monitoring			
Day	**SR**	**Topic**	**Subtopic**
Day 1	1	Introduction, Objective Setting and Pre Test	
	2	Review of Electrical Equipments and Applications	Industry Applications
	3	Listing of Electrical Parameters: Test for	R, L, C, O/C, S/C, V, I, P, Hz, etc.
	4	Various types of Tests: Manuafcturing, Factory	Test during commissioning, O&M
	5	**Power Cable:** Construction, Requirement	Acceptance & Commissioning Test
	6	Insulation resistance test, Polarization Index,	Partial discharge Measurement
	7	Very Low frequency testing (VLF Test), HIPOT Testing	Tan Delta Test
		Power Transformer: Principle of Working and Operation & Maintenance, Testing and	
	8	Power/Distribution Transformer Construction & purpose	
	9	Function of all parts of Power Transformer	
	10	Measuring Devices; Vector groups & Connections (Star &	
	11	2/3 winding Transformer; Name Plate reading & connections	
		Operations (Do`s and Don`ts)	
	12	% Impedance; Efficiency; Losses; Regulation	
	13	Transformer Testing: Oil; Silica; Winding; Heating; Cooling etc.	
	14	Transformer Installation, commissioning: Do`s and Don`ts	
	15	Parallel operation & Load sharing, Tap Changer	
Day 2		Maintenance (Fault Detection & maint. Practices)	
	16	Various Fault Detection & regular testing of Transformer	
	17	Maintenance, Data keeping,	
	18	IR, PI, Dielectric absorption, High Pot, Tan delta, DC winding	
	19	resistance, s/c , TTR, Magnetic Balance Tests.	
	20	Harmonics; Voltage Fluctuation control and Effects	
		Faults & Protection	
	21	Scheduled and unscheduled Maintenance of Transformer.	
	22	Faults in Transformer; Faults while making Connections	
	23	Protection of Transformer & Relay Setting	
	24	Protection of Transformer: Over Load, Over current, S/C,	
	25	Earthing failure, Differential Protection, REF, BR CB & relays.	
		Failure Analysis	
	26	Failure Analysis: FMEA and other	
	27	Thermography; Conditioning Monitoring & Life improvement	
	28	NDT; RLA; Many case studies.	
	29	Post Test, Assessment and Feedback	
	30	Case Studies	
Day 3	31	CT/PT/LA/CB/Control Panel/Isolator	Fundamentals, Testing, Failure and
	32	Various other CBM Techniques (Informative)	Thermography; Oil Testing
			Case Studies & Discussion
	33	Electrical Motor:	Failure, O&M, Various Applicable Test
			Vibration Analysis; Current Signature
			Eddy Current & Magnetic Particle
	34	Various Case Studies	
	35	Summery of Days Learning; Q&A	
	36	Post Test; Closure of Training; Feedback and Assessment	