

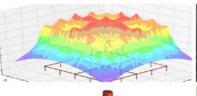


Electrically Safe, Reliably Protected.

# OUR SPECIAL SERVICES

- CDEGS based earthing detailed designs, review, and validation
- Study of complex grounding systems
- · Earthing system health assessment studies
- Assessment of Touch & Step potential and transfer potential
- Assessment of earth loop impedance, adequacy of isolation devices for sizing and operation and equipotential bonding.
- Lightning protection designs acc. to IEC 62305
- Lightning protection risk assessment
- Lightning protection installation certification
- Lightning and shielding analysis for switchyards
- · Commissioning support activities for earthing and lightning protection

- EMI studies for railways, metros, and data centers
- · Assessment of safety due to EMI issues
- Analysis of AC corrosion effects on utilities such as pipelines, conductors, etc.
- EMI studies on signal and telecom lines due to **HV OHL conductors**
- · Electrical and fire safety audit
- Power plant audit complying to (CEA Reg. schedule-IV)
- · Distribution companies safety audit complying to IS 14489-2018 (CEA Reg.)
- Training competency and skill mapping
- Root cause analysis and incident investigation
- Energy audit



















#### **ELECTRICAL SYSTEM STUDIES IN ETAP**

- · Load flow
- Short circuit
- Motor starting
- Harmonics
- · Transient stability
- Relay coordination Arc flash
  - · Grid islanding
- · Transient over-voltage and TRV
  - · Lightning transients
  - VFTO
  - · Back flash over
  - BIL design for transmission line and substation equipment

INSULATION COORDINATION STUDIES IN EMTP

· Surge arrester sizing and validation

## **ELECTRICAL INSTALLATION REVIEW, VERIFICATION** AND COMPLIANCE (CEA, NEC, LOCAL NORMS AND **GUIDELINES**)

- · Design review
- · Mandatory initial inspection
- · Periodic verification of electrical installations
- Power measurement of electrical installations
- Thermography measurements of electrical installations
- Electrical failure risk analysis
- · Hazardous area classification review

## POWER QUALITY STUDIES - IEEE 519-2022, IEC 61000-2-2, IEC 61000-2-4, EN 50160

- Harmonics
- Power factor
- Voltage dip/swells
- Transients
- Interruptions
- Events
- Waveforms
- Equipment failure RCA
- Trippings/malfunction RCA

### VISION POWER ANALYTICS PRIVATE LIMITED

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