

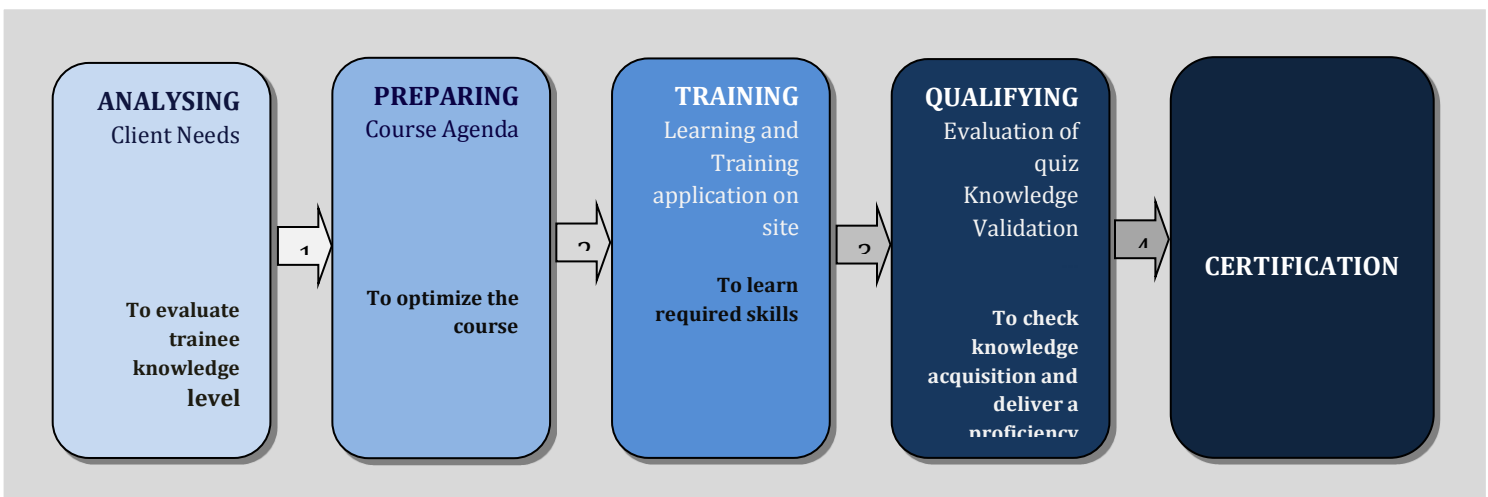
Proficiency development training programme

Client-precise. Excellence through certification on your requirements. First Logic substation automation institute is committed to your success. Our goal, customer-specific proficiency development programme fulfillment with the highest standards of safety and operational excellence.

First Logic training offers you,

- Complete analysis and estimation of proficiency after the training.
- Customized agenda and content to meet your requirements.

Proficiency development training techniques



After successful completion of the program and concluding assessment, a proficiency certificate is granted to the participant. The certificate is the pledge of proficiency acquisition and its sustained legal terms are ensured by scheduled refresher program and evaluation.

Training for the following voltage level Equipments and Protection Schemes.

- EXTRA HIGH VOLTAGE
- HIGH VOLTAGE
- MEDIUM VOLTAGE
- LOW VOLTAGE

☒ Busbar Arrangement Schemes

- > Single bus with single breaker
- > Double bus with single breaker
- > One and half breaker
- > Ring bus

☒ Protection Schemes

- > Busbar differential protection
- > Line differential protection
- > Transformer differential protection
- > Breaker failure protection
- > Synchronizing scheme
- > Automatic voltage regulator
- > Auto bus transfer scheme
- > Auto capacitor control scheme
- > Load shedding

☒ Equipment Testing

- > Power transformers
- > Distribution type transformers
- > Current transformers
- > Voltage transformers
- > Circuit breakers
- > Disconnectors
- > Earth switch
- > Surge arrester
- > Capacitor bank
- > LCC panel
- > Relay panel
- > Control Panel

All the Major Company Relays will be taught – ABB, ALSTOM, SIEMENS, SCHNEIDER, SEL, GE, MR, ES

- > 50/51/50N/51N Over Current Relays
- > 51G Ground Over Current Relays
- > 46-1 Neutral Unbalance Relays
- > 67/67N Directional Over Current Relays
- > 50/62BF Breaker Failure Relays
- > 87T Transformer Differential Relays
- > 87L Line Differential Relays
- > 87G Generator Differential Relays
- > 87B Bus Bar Differential Relays
- > 21 Distance Relays
- > 85DTT Relays

Other Relays

- > 25 Synchro Check Relays
- > 79 Auto Re-closer Relays
- > 90 Automatic Voltage Regulator
- > 27 Under Voltage Relays
- > 59 Over Voltage Relays
- > 81 Under/Over Frequency Relays

Controllers

- > Auto Bus Transfer Scheme Relay
- > Auto Capacitor Control Relay
- > Bay Controller

Auxiliary Relays

- > 86 High Impedance Tripping Relays
- > 94 Low Impedance Tripping Relays
- > 74 Trip Circuit Supervision Relays
- > 74 Lockout Supervision Relays
- > 74 Dc Supervision Relays
- > Bi Stable Relays
- > Fuse Failure Relays
- > Contact Multiplication Relays

⊕ Metering

All the Major Company Meters will be taught

Analog Meters

- > Ammeter
- > Voltmeter
- > Frequency Meter
- > Synchro Meter
- > Phase Angle Meter
- > Power Demand Meter
- > Energy Meter

Digital Meters

- > Ammeter
- > Voltmeter
- > Power Demand Meter
- > Energy Meter
- > Multi Function Meter

Transducers

- > Voltage Transducers
- > Current Transducers
- > Real Power Transducers (MW)
- > Reactive Power Transducers (MVAR)

⊕ Calibration Equipments

All the Major Company Calibration Equipments will be taught – OMICRON, MEGGER, PROGRAMMA

Secondary Injection Equipment

- > FREJA 300 Three Phase Injection
- > SERVERKER 760 Single Phase Injection
- > CMC 256plus, 356 Three Phase Injection

Primary Injection Equipment

- > Oden AT
- > CPC 100

Others

- > B10E
- > MOM 600
- > Phase Angle Meter Zera
- > TTR
- > Breaker Analyzer
- > CT Analyzer
- > DELTA 2000
- > AC HIPOT
- > Ac Very Low Frequency Hipot
- > Insulation Resistance Tester
- > Wheat Stone Bridge

✚ Learn How to

- > Read different types of protection schemes.
- > Troubleshooting in the control circuit & Scheme.
- > Test all types of equipments.
- > Configuring the Numerical relays.
- > Setup a test on protection relays by using equipments software protocol.
- > Perform the test using the Advanced Protection test modules.
- > Configure the hardware for test object and equipment.
- > Work in existing substations with zero percentage accidents.

✚ Clients

National Grid – SA, Saudi Aramco, Al-Osais International holding company, Jal International, Al-fanar, Al-Ojaimi Contracting company, Saipem, Al-Baptin, Wescossa, Delta company, etc..

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