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1.0 QUALIFICATION:

- Post Graduate in Power System Engineering & Power System Analysis from IIT, Mumbai - 1976.
- Bachelor of Engineering B.E (Elect.) Victoria Jubilee Technical Institute (VJTI), University of Bombay – 1972
- Member of the Institute of Electrical and Electronics Engineers Inc.- USA. IEEE No: 41345391 in the year 2000.
- Fellow Member of Institution of Engineers: No. F/103468/1 in the year 1996.
- Fellow Member of Indian Society of Lighting Engineers: No. F0448. India.
- Chartered Engineer in the year 1992.

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2.0 EXPERTISE:

The expertise acquired in following specific areas of electrical and power system engineering during the period 1972 till this date.

- **Power System Protection:** Power system and it's equipment's controls and protection system application, setting etc.
- **Power system studies** on engineering software ETAP for varieties of electrical power system network from EHV level to LV level.
- **Detailed project design engineering**, exclusively for electrical power system. The expertise acquired in
 - The industrial captive and combined cycle power plant.
 - Cement Industries for complete cement line and grinding units.
 - Refineries and petrochemical complexes.
- **Testing and commissioning** of electrical power system network from EHV switchyard upto LV switchgear including power distribution system and it's equipment.
- **Condition Monitoring and Diagnostic testing** (Health Checkup) for major power equipments such as, Generators, Power Transformers, HT Motors, MV cables.

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- **Engineering Training Courses:** Developing and delivering power system protection and power system study related engineering training courses.

3.0 EXPERIENCE:

3.1 Tata Consulting Engineers, Mumbai 1972 to 1981

3.1.1 Electrical system Detail Engineering for following projects.

- Tata Electric Co.
 - Trombay Thermal Power Station
 - Bhira Generating Station Rehabilitation
 - Bhivpuri Power House
 - Khopoli Power House
- Shahanan Power Project of PSEB
- Madras Atomic Power Station – Atomic Energy Department.
- Narora Atomic Power Station - Atomic Energy Department.

3.1.2 Engineering Inspection, Testing and Commissioning Activities Carried Out for Following Equipment for above Projects.

- 220kV/110kV Switchyard equipment
- Power Transformer
- H.V. and M.V. Switchgear
- L.V. Switchgear

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- Generator, M. G. Sets, D. G. Sets
- LA, SC, PT cubicles
- Generator Bus duct and L.V. Bus duct
- Other miscellaneous power plant equipment.

3.1.3 Power System Studies, Control and Protection System Handled for Following projects:

- 400kV Iraq Super Grid, Stage I (with Mitsubishi Electric Corporation in India)
- 400kV Iraq Super Grid, Stage II (with Mitsubishi Electric Corporation in Japan)
- Tata Electric Co. Transmission and Distribution Network.

3.2 Power Linker Group Co., Mumbai 1982 – Till Date

Detail Project Design Engineering, Power System Studies (such as load flow, short circuit, steady state & Transient stability study, Relay setting and Relay Co-ordination, Harmonic Study etc.), Equipments / System Protections, Parallel Operation of power plant with Grid, Grid Islanding / Load Shedding Scheme Design, Testing and Commissioning etc.

3.2.1 Power Projects:

- Atul Products, Balsar : 1x18MW
- Birla Cellulosic, Kharach : 2x15MW

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- Grasim Industries Ltd., Nagda. : 1x40MW
- Gujarat State Fertilizers & Chemicals Ltd., Vadodara : 1X15MW + 1X25 MW + 1x30MW + 1x20MW)
- Vikram Cement, Khor : 2x20MW (Feasibility Report)
- Eurotex Industries & Export Ltd., Kolhapur : 6MW + 4MW D. G. Sets
- The Associated Cement Cos. Ltd., Wadi : 2X25 MW
- Bharat Petroleum Corpn. Ltd., Mumbai : 2X22MW GTGs
- Hindustan Petroleum Corpn. Ltd., Mumbai : 3X10MW GTGs
- Ambuja Cement, Ropar : 1x15MW
- Ambuja Cement, Bhatapara Cement Line II : 1X15MW + 1X33MW

3.2.2 Electrical System Network, EHV/HV Switchyards and Downstream Networks:

- Century Enka Ltd., Pune : 220KV Switchyard
- Bombay Dyeing & Manufacturing Co. Ltd., Raigad : 220KV Switchyard
- Sterlite Industries (I) Ltd., Tuticorin : 220KV Switchyard
- SPIC Petrochemicals Ltd., Madras. : 110KV Switchyard
- Gujarat State Fertilizers Chemicals Ltd. : 66KV Switchyard

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- Tarapur Atomic Power Generating Station: 220MVA Transformer
- Deepak Fertilizers and Petrochemicals Ltd.
- Sterlite Ltd. Copper Smeltor, Tuticorin
- Vedanta Group Cos. at Balco Korba, Malco Salem, Lanjigarh
- Essar Power Ltd., 550 MW
- Bander Power Ltd. 550 MW (Essar Group)
- Gujarat Flouro Ltd., Dahej
- Cairn Energy India Ltd., Hazira
- Gujarat State Energy Generation Ltd., Hazira
- Indo Rama Synthetics Ltd., Nagpur
- Thirumalai Chemicals Ltd., Ranipet
- Monet Ispat Ltd., Raigarh
- Emami Paper Mills Ltd., Balasore
- Reliance Industries Ltd., Patalganga, Hazira, Nagothane, Jamnagar, Vadodara.
- IOCL, Vadodara
- Grasim Industries Ltd., Kumarpatnam
- Essar Oil, Jamnagar

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3.2.3 Detail Design Engineering for Electrical system of Cement plants for following plants.

- Gujarat Ambuja Cement Ltd., Farakka, Roorkee, Surat, Dadri & Nalagarh Grinding Units.
- Gujarat Ambuja Cement Ltd., Bhatapara – Line II Brown Field Project
- Gujarat Ambuja Cement Ltd., Rauri Cement Line II Brown Field Project
- Ruby Mills Ltd., Textile Processing House, Kharsundi

3.2.4 Various Electrical Equipment Involved For The Above Projects

This includes following equipment.

- 220kV/100kV/66kV Switchyard equipment
- 33kV, 11kV, 6.6kV & 3.3kV Switchgear
- Power Transformer and Distribution Transformer
- High voltage & Low voltage cables
- LV Switchgear
- Generator, Generator Busduct, LV Busduct, LA, SC, PT Cubicle
- Capacitor Bank
- Battery & Battery charger
- Earthing Transformer
- HT & LT Motors

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3.2.5 Exclusive Power System Study Projects:

The power system study includes Load Flow, Short Circuit Studies, Steady State and Transient Stability Studies, Relay Setting Coordination, Grid Islanding / Load Shedding Scheme, Motor Dynamic switching studies.

- Gujarat State Fertilizers & Chemicals Ltd., Vadodara
- National Organic Chemical Industries Ltd., Thane
- Hindustan Petroleum Corporation Ltd., Mahul
- Gujarat State Fertilizers & Chemicals Ltd., Fibre Unit, Kosamba
- Century Enka Ltd., Pune
- Atul Ltd, Valsad
- Reliance Industries Ltd., Hazira
- Hindalco Industries Ltd., Birla Copper Unit, Dahej
- ACC Ltd. , Wadi, Madukarai, Tikaria, Chandrapur, Kymore, Chaibasa, Jamul Cement plants
- Grasim Cement, Raipur
- Steel Authority of India Ltd., Rourkela
- Ultratech Cement Kovaya
- Petronet LNG Ltd., Dahej

- British Gas Exploration and Production India Ltd.
- Jindal Steel and Power Ltd., Raigarh
- Jindal Steel Ltd., Jajpur

3.2.6 International Projects:

- TCL Industries (M) SDN. BHD., Malaysia
- PT Polysindo Eka Perkasa., Indonesia
- Kuwait National Petroleum Corporation, Kuwait Mina Abdulla Refinery Power System Studies for 3 x 8 MW Frequency Conversion System for parallel operation with MEW.
- KNPC-MAB Refinery Power System Study on ETAP software for SSRP project.
- KNPC-MAB Revamping of automation of Bridge Crane unit.
- SABIC Industries, Styrene Plant, Saudi Arabia
- Indo-bharat Rayon, Indonesia
- PT Indorama Synthetics Tbk., Indonesia
- Abu-Dhabi Oil Refining Co. Ltd. Thru' Dodsall Engineering
- PT Punj Lloyd, MSW 2X30 MW Power Plant Project
- MEW, Bahrain
- Joint Operation, Wafra Kuwait
- DEWA, thru' Kamal Engineering

3.2.7 Power Quality Management :

Carried out Harmonic Measurement and analysis at:

- KRUPP Industries Ltd.,
- Welspun Terry Towels Ltd.,
- Moser Bayer India Ltd.
- MRF Tyres Ltd., Panjim.
- ACC Ltd., Kymore Cement Works.
- RIL, Jamnagar thru Thermon Engineering

3.2.8 Training Courses:

- Development of training modules on '**Power System Equipment and its Protection**'.
- Faculty for conducting '**Power Engineering Courses**' on various specialized subjects of Power System Protection and Power System Analysis.
- Participated as faculty member in around 180 nos. of Open House/ In House training courses.

4.0 Publications:

- Grounding Transformer Specification without ambiguity, K. Rajamani and H.C. Mehta IEEMA Journal, August 2001, pp 52 54.
- Effect of tap changing on reactive flow, K. Rajamani and H. C. Mehta, IEEMA Journal, June 2001, pp 40-44.
- India Doble Protection and Automation Conference Nov. 2008.
- Earth Fault Protection vis-à-vis Generator Grounding system.
- Generator Differential Protection Scheme Stability vis-à-vis selection of CTs.