

## VEDVATI NANDKUMAR JOG

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**Manager Level | ME Electrical Engineer (Power Systems)| Design and Costing Engineer| Panel Design and wiring Software| Design and simulation| Tendering| Product Designing| Project Handling |Automation Projects | Six Sigma Green Belt Certified (IACT) | ISO 9001:2008 LA certified (TUV) |NABL 17025 Internal Auditor (IDEMI)|Supplier Process Audits VDA 6.3 Auditor | ISO 14001 and ISO 45001 Internal Auditor| QA & QC Engineer**

### OBJECTIVES

- To take up the role & responsibilities which enables me to utilize my competencies & experience.
- To drive the organizations to the next level of maturity by continuous improvement in terms of quality Processes, projects and process excellence, organizational excellence using total Quality Management systems approach where various quality initiatives can be integrated and deployed in a planned efficient way.

### CAREER PATH

#	Kirloskar Chillers Private Limited, Saswad, Pune. (Contractual)	Manager - Design/Projects (Electrical Design)	Aug 2019 -Till Date
#	Worked as a consultant	Freelancer	Sep 2017 - July 2019
#	Quality Power Electrical Equipments, Sangli.	Manager - Design/Projects	Jan 2014 - Aug 2017
#	SIEMENS Switchgear, Kalwa, New Mumbai. <i>Joined Siemens Switchgear as Graduate Trainee Engineer - R&amp;D.</i>	- Senior Executive - Quality Engineer (Quality Management) - Executive - Design Engineer (Research & Development)	Jan 2010 -Dec 2013 Jul 2007 - Dec 2009

### PROFESSIONAL PROFILE

- A hard working professional with about 13 years of experience in Project Management, Designing and selection of switchgears, Electrical calculations, Electrical panel and layout designing and engineering, Bill of materials, drawings finalizations, Preparation of RFQ, Finalization of technical submission, Quality Procedure & Quality Assurance: Vendor Quality & In-process Quality, tendering.
- ME in Electrical Power System & BE in Electrical; Associated with Siemens, Quality Power Electrical Equipment's Pvt. Ltd, Sangli and Kirloskar Chillers Pvt. Ltd, Pune as Manager - (Department: Design/Projects and Quality).
- Adept in project planning, handling & execution, resource planning, product costing, BOM and GA drawing preparation and its approvals from esteemed customers, Understanding of customer requirements, quality procedure & assurance, tendering, software analyst, ISO auditor site management and work as an individual contributor as well as part of a team.
- Ability to successfully manage multiple priorities and assignments to provide total value engineering.
- Adept in swiftly ramping up projects within deadlines, budgets and quality parameters, thereby generating savings for the organisation.
- An effective communicator with exceptional relationship management skills & ability to relate to people at all level.
- Interaction with customers like PGCIL, BHEL, GE, SIEMENS, GETCO, KEPCO, state electricity boards, Turkish electricity boards.
- Expertise in finite element analysis Simulation soft wares like FLUX, J-MAG.
- Coordination and interaction with all certifying agencies TUV, DNV, UL, CSA and CE.

### COMPETENCIES

- ◆ Team coordination ◆ Design Engineering ◆ Tendering ◆ Auditing ◆ Product costing Project management, handling and execution ◆ Vendor quality management ◆ Quality Planning ◆ Analytical & problem solving
- ◆ Quality Assurance ◆ Quality Management ◆ Structure calculations (Seismic and wind load calculations)
- ◆ Instruction Manual preparation ◆ Switchgear selection and panel design.

### STRENGTHS

- Strong technical background in Power Systems and Electrical Switchgear.

- Understanding of various IEEE/IEC/IS /ANSI/UL/CE/CSA standards and certifications.
- Technical knowledge of all switchgear products - Starters, Contactors 3TF/SIRIUS, CT Relays, Timers and Accessories, Air core and oil cooled reactors , Line traps, ONAN and AN Transformers
- Design products: Thermal & Heat calculations, problem solving by analytical and numerical methods by using software's like FLUX2D/3D, SIEMENS LOGO, National Instruments Lab view.
- Transient and sound analysis by using JMAG software.
- Structural calculations. (Seismic and wind load calculations)
- Testing products: Test set up, panel and fixture operations for various parameters checking (HV testing and stroke wipe checking).
- Mechanical life test of contactors by using thyristorised control system - State-of-the-art PLC based control system.
- Quality planning, Analysis of customer complaints and Documentation.
- ISO 9001, 14001 & 45001, NABL Audits 17025, VDA Auditor, Safety Audits and 5S Audits, Calibration of electrical & mechanical measuring instruments, behaviour of the instruments, uncertainty calculations, etc.

### **KEY CONTRIBUTIONS & ACHIEVEMENTS – PROJECT Handling**

#### **Aug 2019 – Till Date**

Description	Leading to Designing and Engineering (HVAC) Electrical department.
Responsibilities	<p><u>Design</u></p> <ul style="list-style-type: none"> <li>□ Review of switchgear, wiring diagrams, Electrical panel fabrication drawings, cable selection and their approvals.</li> <li>□ Review of Programming of PC05 controller and its functional block diagrams for chiller testing.</li> <li>□ Selection of switchgears and VFD for chillers, accordingly BOM, drawing preparation and release to manufacturing.</li> <li>□ Cost finalization of VFDs and switchgear material.</li> <li>□ Discussion and finalization with suppliers/vendors for switchgear items. (SIEMENS, SCHNEIDER, DANFOSS)</li> <li>□ Understanding and review of different standards vis-à-vis IEC-61439, IEC-60947, IEC-60529/IEEE and IS standards and preparation of reference documents</li> <li>□ Support to ISO audits, vendor audits, third party audits and compliance to the standard requirements.</li> <li>□ Conducted plant Audits.</li> <li>□ Co-ordination of Engineering activities with shopfloor.</li> </ul>

#### **Sep 2017– July 2019**

Description	As a consultant (freelancer) and implemented all ISO standards as per customer requirements.
Responsibilities	<p>Preparation of Gap analysis reports and system implementation as per standard requirements within the organization, conduction of internal audits, Route cause analysis, Management Review Meetings, presence and contribution during external agency certifying audits, NC closures and sustainability.</p> <p>Implemented ISO 9001, ISO 14001, ISO 45001 (Client Base – Kirloskar Chillers Private Ltd. (Saswad), Thermax Enviro and Heat Divisions(Bhosari), Worldwide Oil Fields Machines (Shindewadi), Tata Toyo and Yorks (Talegaon), Burckhardt Compression (India) Private Ltd –Ranjangaon, Beldedn India Private Ltd. (Chakan), Eurolec, Cyronics (Pune).</p>

#### **Jan 2014 – Aug 2017**

Description	Product costing and preparation of technical specifications and budgetary offers, New product development, Structural calculations, Transient and sound analysis, Product Manual preparation, Preparation of Tender documents, Technical support to quality testing, Implementation of ISO systems, Item master creation in SAP, website data collection.
Responsibilities	<ul style="list-style-type: none"> <li>□ Review of Reactor, line traps and transformer designs, costing, finalisation of technical specifications, approval of GA drawings and offers.</li> <li>□ Structural calculations – Seismic and wind load calculations for Reactor supporting insulators and structure.</li> <li>□ Transient and sound analysis for Reactor and Line Traps by using JMAG software.</li> <li>□ Preparation of product manuals according to customer requirements.</li> <li>□ Preparation of tender documents for GE, BHEL, KEPCO, GETCO, MPPGCL, MPPTCL.</li> </ul>

	<ul style="list-style-type: none"> <li>□ Technical support to quality testing for Routine tests, Type tests complying to international standards.</li> <li>□ Preparation of MQP/QAP (manufacturing/quality assurance plans) for Filter reactor, Neutral grounding reactors, shunt and series reactors, Thyrisor Controlled reactors, Line traps and transformers.</li> <li>□ First coil tests report and its approval.</li> <li>□ Prepare work instructions.</li> <li>□ Successful implementation of ISO 9001-2008 for FRP manufacturing components (tie rods used for reactors for cooling purpose)</li> <li>□ Implementation of ISO 14001 and 45001 to Reactor, Line Traps, Transformers factory</li> <li>□ Calibration of Electrical and Mechanical measuring instruments.</li> <li>□ Interaction with various customers like PGCIL, GE, BHEL, SIEMENS, MPPGCL, MPPTCL, RDSO, Turkish Electricity board, Saudi Electric Boards.</li> <li>□ Developed Top hat on reactors for AMSC, GE as a new product.</li> <li>□ Item master creation for raw material in ERP system. Data collection for website.</li> <li>□ Study of different standards like IEC-60076, IEC-60353, IS-2026, IEEE, ANSI.</li> <li>□ Sound Analysis by using finite element analysis (FEM) simulation software J-MAG and Verification of simulation results with actual reading.</li> <li>□ Conducted Plant Audits.</li> <li>□ Co-ordination of Engineering activities with shopfloor.</li> </ul>
Award/ Achievement	<ul style="list-style-type: none"> <li>□ <b>Best Team Leader Award FY-2016</b></li> </ul>
<u>Jan 2010 – Dec 2013</u>	
Description	Quality Planning, Analysis and Documentation: Switchgear Products -Starters, contactors, CT Relay and Accessories
Responsibilities	<ul style="list-style-type: none"> <li>□ Review of drawings, products, amendment procedures, coordinate with various departments and control plans for documentation.</li> <li>□ Finalize requirements specifications and Tool Equipment Order (for stroke wipe measurement, HV Testing, Mechanical life testing of contactors, coil current test set up).</li> <li>□ Make Panel acceptance reports.</li> <li>□ Make Panel/Fixture operating instructions.</li> <li>□ Initial Sample Inspection Reports (ISIR), Sample Inspection Reports (SIR) and Pre Delivery Inspection Audit.</li> <li>□ Process monitoring and defect analysis.</li> <li>□ Vendor Quality and In-process Quality for the switchgear products.</li> <li>□ Manufacturing Process Product Audit (MPPA)</li> <li>□ Analyse customer complaints and corrective action (CAPA).</li> <li>□ Prepare work instructions.</li> <li>□ Monitor monthly First Pass Yield (FPY)</li> <li>□ Monitor measure of performance on scrap and Quality Performance on monthly basis with M reports.</li> <li>□ Coordinate with suppliers on Quality Improvements Techniques.</li> <li>□ Quality System internal audits and conduct supplier's quality systems.</li> <li>□ Top+ quality and star power activities</li> <li>□ Quality Management System (QMS) like ISO 9001-2008, ISO 14001 &amp; ISO 45001 and implementation - Internal Auditor/Auditee.</li> <li>□ ISO 14001 &amp; ISO 45001 (OHSAS) - Auditee.</li> <li>□ Calculate HIRA Sheet (Hazardous Identification and Risk Analysis).</li> <li>□ VDA 6.5 – Internal Auditor</li> <li>□ ISO/IEC 17025:2005 - NABL Internal Auditor</li> <li>□ 5S – Auditor</li> <li>□ Safety Audits – WSGR Factory - Being as a member in safety committee – follow safety rounds in factory.</li> <li>□ UL and CSA certification</li> <li>□ Calibration of Electrical and Mechanical measuring instruments.</li> <li>□ Plan annual calibration activity for HV testers inside and outside of the factory.</li> <li>□ Perform MRP label approval activity.</li> </ul>

Project	Up-gradation of Mechanical Life Test of Contactors (IEC-60947)
Responsibilities	<ul style="list-style-type: none"> <li>□ Single handed drove the project.</li> <li>□ Finalize specifications and requirements of MLT test set up with inter department and vendor.</li> <li>□ Active role in MLT lab test set up installation/commissioning.</li> <li>□ Finalize test procedure and Method Instruction Sheet (MIS) for MLT lab.</li> <li>□ Analyse contactors after mechanical life testing.</li> <li>□ Report release and records keeping.</li> <li>□ Fulfilment of all IMS requirements for the Lab. Prepare HIRA, follow all safety norms and policies, disposal of hazardous waste during MLT through proper methods (form 2A), make process flow chart, List of significant aspect &amp; Aspect impact evaluation.</li> <li>□ Conduction of contactors mechanical life test.</li> </ul>
Award/ Achievement	□ <b>Team award for SIRIUS magnet localization, 2012 - 2013</b>
Project	Special Purpose Equipments/Instruments and their Procurement
Responsibilities	<ul style="list-style-type: none"> <li>□ Procurement, testing, calibration of Yokogawa DL 750 Oscilloscope, Fluke Harmonic power analyzer, Current clamps for various current ranges, Torque meters and Force meters and dial gauges.</li> <li>□ Use of Yokogawa oscilloscope for validation of contactor parameters viz. closing time, contact bouncing etc, nature of AC waveform during MLT.</li> <li>□ Encourage and train peers to use sophisticated equipment for detailed analysis of various electrical phenomena related to switchgear.</li> </ul>
	□ Independently carried out the responsibilities for the work.
<b><u>Jul 2007 - Dec 2009</u></b>	
Project	Development of PLC Software for an Integrated Set up for Temperature Rise Test, Weld Detection test and Arc Energy Calculation on Siemens Contactors
Responsibilities	<ul style="list-style-type: none"> <li>□ Develop Excel program software for Arc Energy Calculation.</li> <li>□ Detailing of Weld Detection Test.</li> <li>□ Formulate logical sequence of the complete process.</li> <li>□ Prepare the algorithm.</li> <li>□ Develop PLC program using Siemens' Logo software.</li> <li>□ Manage practical trials</li> <li>□ Carry out measures for increasing reliability of the setup for 24x7 operations.</li> </ul>
Project	Design, Develop and Test of Current Transformer with Bi-Relay
Responsibilities	<p><b><u>Design &amp; Development</u></b></p> <ul style="list-style-type: none"> <li>□ Study of Electromagnetic phenomena of current transformer by using FLUX 2D/3D.</li> <li>□ Reverse engineering of competitor products Current Transformers.</li> <li>□ Design of Current Transformer by Analytical method for various values of current for class 10 and class 30 CTs.</li> <li>□ Heat/Thermal calculations by analytical methods.</li> <li>□ Verify and validate the analytical results by sample prototype.</li> <li>□ Design and process failure mode effectiveness analysis (DFMEA/PFMEA).</li> <li>□ Use Product Life cycle Management (PLM) process.</li> <li>□ Study and understanding of IEC/IEEE/ANSI standards.</li> </ul> <p><b><u>Testing</u></b></p> <ul style="list-style-type: none"> <li>□ Check the performance of Current Transformer at 1In, 3In and 8In of primary current and corresponding secondary current (Performance Evaluation).</li> </ul>

## **SKILL ENHANCEMENT**

### **Technical**

➤ ISO/IEC 17025:2005 - NABL Internal Auditor (IDEMI)	➤ 7QC Tools
➤ ISO 9001:2008 - Internal Auditor & Transition (BSI)	➤ 8D Methodology
➤ ISO 9001:2008 certified Lead Auditor course (TUV)	➤ DFMEA and PFMEA

➤ ISO 14000 & 45001: IMS Awareness (OHSAS) – Internal Auditor	➤ Engineering Electromagnetic & Finite Element Analysis – Theory & Analytical Calculations by IIT Powai.
➤ Six Sigma green belt certified (IACT)	➤ SIEMENS PLC LOGO Soft ware
➤ Supplier Process Audits VDA 6.3 Auditor	➤ National Instruments Lab View – Basic Training
➤ Preparation of AI and HIRA Sheet	➤ Computer Aided Engineering – CEP Course by IIT Powai
➤ PLM Process (Product Lifecycle Management)	➤ UL management Systems Solutions (Organised by Siemens Germany)

### **Professional**

- ♦ EDP - Entrepreneurship Development
- ♦ Assertiveness Skill
- ♦ Team Building
- ♦ Interpersonal Relationship
- ♦ Problem solving & decision making
- ♦ Compliance
- ♦ Fire Fighting & First Aid

### **EDUCATION**

2005 - 2007	ME-Electrical (Power System)	Walchand College of Engineering, Sangli, Maharashtra.	74.64%, 1 <sup>st</sup> Class with Distinction.
2000 - 2003	BE- Electrical,	Walchand College of Engineering, Sangli, Maharashtra.	62.02%, 1 <sup>st</sup> Class
1997 - 2000	DE-Electrical	Walchand College of Engineering, Sangli, Maharashtra.	77.17%, 1 <sup>st</sup> Class with Distinction.

### **PAPERS PUBLISHED**

- Shunt active filter for reactive power compensation and harmonic mitigation.” Published in ICPE’ 07, IEEE international conference in Power Electronics, held at Daegu, Korea.
- “An adaptive hysteresis band current controlled shunt active power filter.” Published in ICPE 2007, IEEE conference in Power Electronics, held at Gdansk Maritime University, Gdansk, Poland.

### **ACADEMIC PROJECTS**

Project Title: ME Thesis	A High performance hysteresis current controlled VSI based shunt active filter
Description	To construct a complete closed loop simulation model of 1ph and 3ph active power filter and its performance appraisal under different operating conditions viz. reactive load, harmonic load and mixed load.
Project Title: BE Thesis	Slip controlled induction motor drive using three phase line commutated inverter in rotor circuits.
Description	Review of speed control methods & analysis of slip power recovery scheme for induction motor. Design of power electronic circuit and protection circuit.

### **OTHER DETAILS**

- Languages Known: Marathi, English and Hindi.
- References: Available on request.

**Present Location: Pune**

**Date- January 2021**