Kazi Sharif (kazisharif.me)

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Hawthorn East, VIC 3123 Full-time working rights in Australia

Engineering Knowledge:

Power systems, Renewable energy, Wind, Solar PV, RAMS, Load flow studies, Fault analysis, Safety, SCADA system, stability and control, Public policy on power generation, Grid Integration

Software and Tools:

MATLAB, Simulink, PSCAD, PSS/e, PSSE, Power factory- DigSilent, AutoCAD, C/C++, Python, Microsoft Office, Microsoft Visio, Microsoft Project, Arduino, VHDL, VLSI, and PLC, PVSyst, CMMS Maximo, SAP (EAM)

Frameworks and Methodologies:

OEM documentation, Reliability Allocation, Reliability Prediction, Functional Hazard Analysis (FHA), Functional FMEA, FMECA, Fault Tree Analysis (FTA), Event Tree Analysis (ETA), Maintainability Analysis, MTTR, Warranty Analysis, Field Data Analysis

Standards:

AS/NZS3000, AS/NZS2067, AS7000, State regulations, National Electricity Rules, Australian Electrical standards, ARP4754, ARP4761, EN50126, EN50128, EN50129, AS/NZS ISO 31000, Risk management Principles & Guidelines

Professional profile

- Professional electrical engineer, accredited by Engineers Australia
- operation, maintenance and operational health and safety.
- Wind and solar grid connection, capacity planning, design review, and network studies.
- RAM / RAMS (Reliability, Availability, Maintainability & Safety) related activities
- Strong knowledge in solving technical problems by establishing teamwork along with maintaining a cheerful outlook and safe work environment.
- Proven experience in reviewing and developing engineering network design documentation, detailed technical reports, analysis, with high levels of diligence.

Experience

Research Engineer **2018 – Current**
Swinburne University of Technology **Melbourne, Australia**

- Delivering design and operational solutions by conducting power system model simulation, fault analysis, feasibility studies, and estimations in compliance with specifications, drawings and Australian standards and best practices.
- Static and dynamic network analysis against NER - Design, modeling, simulation and analysis of power systems networks.
- Benchmark studies between RMS and EMT model
- Provide accurate, informative and timely project appraisals that provide optimal information, solutions and options to clients to achieve best value outcomes.
- Deliver accurate, comprehensive and timely technical reports that conform to project delivery frameworks and guidelines.
- Preparing project objectives, scopes, and evaluation reports and producing performance matrices with multiple objectives to ensure the reliability of processes and optimization of the equipment.

Key Achievements:

- Developed several power system controllers for wind farms to enhance network performance and increase reactive power capability and the outcomes are published in reputed conferences and journals.

Technical Officer **2017 – 2019**
OneWifi Australia **Melbourne, Australia**

- Technical support and maintenance services, corrective and preventive maintenance
- Project management support including site survey, onsite supervision, installation, and project documentation

- Prepare, revise, and analyze technical reports, network designs, and version updates
- SME support to the network operation team, field services team, clients, and stakeholders

Key Achievements:

- Established an innovative planned maintenance schedule in operational sites which successfully reduced the downtime by 30% than the previous year.

Sessional Staff **2012 –2017**
Swinburne University of Technology **Melbourne, Australia**

- Technical report writing, protocol development, quality assurance, data management, technical presentations, acceptance processes, database documentation, work instructions, work aids and checklists and monitoring end to end process flows and identifying blockages.
- Reviewing company technical documentation / Client Reports and ensuring the quality of the technical literature is written with technical accuracy
- Collaborated with other team members to complete special projects and achieve project deadlines.
- Leveraged analytical tools to develop efficient system operations by performing daily data queries and reports.

Key Achievements:

- Published multiple conference and journal papers after successful completion of engineering projects.

Power Jr. Engineer **2010 – 2012**
Orascom Telecom BD Ltd **Dhaka, Bangladesh**

- Operation and maintenance of both AC and DC power system of telecommunication sites.
- Design, technical specifications, drawings, standards and regulations, related to electrical substation, building services, renewable energy, power distribution and protection system.
- Preventive maintenance, corrective maintenance, troubleshooting by leading in-house and outsourced technical teams.
- Experience on RAM and Safety Analysis techniques such as RBD analysis, Reliability Prediction, Fault Tree Analysis (FTA), FMECA, Preliminary Hazard Analysis (PHA), System Hazard Analysis (SHA), and Interface Hazards Analysis (IHA)
- Provides technical support to assist with implementation of recommendations/actions plans. Counsel customers regarding technical issues.
- Serve as a technical expert in a specific specialty area and provided technical and subject matter expert support to NOC (Network Operations Centre), field operation team, special project and vendor team.

Key Achievements:

- Incorporated temperature logging data into central monitoring systems to improve the lifetime of DC equipment that helped reduce 10% of power operational cost from the previous year.
- Executed Energy Resource Management (ERM) modeling and monitoring energy across the network involving electrical load calculation and effective steps for load optimization.

Executive - Maintenance (Engineering) **2008 - 2010**
Holcim Bangladesh Ltd **Dhaka, Bangladesh**

- Coordinate RAM / RAMS (Reliability, Availability, Maintainability & Safety) related activities
- Perform all RAM related activities on Projects, applying defined Process and Methods Guidelines
- Make recommendations for architecture choices to meet contractual RAM targets
- Develops Reliability Block Diagrams (RBD's) and Failure Mode & Effects Analysis (FMEA), Failure Modes Effects and Criticality Analysis (FMECA)
- Calculate MTBF, MTTR and availability for system and subsystem architecture solutions
- Knowledgeable in the following: IEC-62380, MIL-HDBK-217, Markov Modeling techniques for redundancy
- Define and manage the Project Reliability Growth Management Plan

- Implement a RAM Monitoring process during O&M (Operations & Maintenance) phase and issue RAM-related KPIs
- Responsible for budget and schedule adherence throughout project lifecycle
- Serves as participant up to subject matter expert (SME) of assigned HES&S Risk Management topics and issues across the plant.

Key Achievements:

- Successfully identified the pitfalls to improve the efficiency of the existing conveyor systems and modified the electrical system that reduced the operational time by 35% and operational cost by 15%.
- Implemented a Preventive Maintenance (PM) management system by analyzing all jobs and frequency of performing PM. This system was later integrated into the computer-aided system which helped to monitor and analyze quality of equipment and forecast potential risks.

Training and Qualification

- Professional Electrical Engineer (Skill level 1) - Engineers Australia (EA)
  Melbourne | 2019 (Credential ID - 233311)
- Postgraduate degree in Engineering - Swinburne University of Technology
  Melbourne | 2019 (Power system stability and control, Renewable energy integration, Wind turbines)
- Certification in PSSE applications
  Melbourne | 2017 (Network studies, power-flow Analysis, and renewable energy integration)
- Certificate in Occupational Health and Safety – Swinburne University of Technology
  Melbourne | 2016
- Certification in Applications of PSCAD - Manitoba HVDC
  Melbourne | 2015 (transient Studies, HVDC and wind)
- Islamic University of Technology - Bachelor's degree in electrical engineering
  Dhaka | 2008 (Electrical circuits, Electronics, Electrical machines, Digital electronics, Industrial electronics, Telecommunication engineering, Transmission and distribution, and Power station)

Skills

Wind, Solar PV, Control system, RAMS, Load flow studies, Fault analysis, Safety, Protection and relays, SCADA system, Power system stability and control, Reliability Block Diagrams (RBD's) and Failure Mode & Effects Analysis (FMEA), Failure Modes Effects and Criticality Analysis (FMECA), Preliminary Risk Analysis, Fault Tree Analysis (FTA), MTBF, MTTR, EN50126, EN50128, EN50129, Markov Modeling techniques, PSCAD, PSS/e, PSSE, Power factory- DigSilent, AutoCAD, CAD, Python, Microsoft Office, Microsoft Visio, Microsoft Project, MS Word, MS Excel, SAP CMMS, OEM documentation, Public policy on power generation, 4G, 5G, Wifi, Smart grid, HES, HSE, AS/NZS3000, AS/NZS2067, AS7000, National Electricity Rules, Australian Electrical standards, state/territory based rules/codes, Project management, Quality management, Vendor management, Troubleshooting, dynamic simulations, high voltage protection systems, renewable generation and batteries, Renewable power generation, transmission or distribution, Grid connection studies, project implementation, grid connection procedures with AEMO, DNSP's & TNSP's, DNSP Connection Standards, Static and dynamic power system studies, NEM, NERs and industry accepted practices, Transmission system planning, power system modelling and dynamic analysis, Transient stability studies, fault studies, generator connection studies and renewable integration, Generator Commissioning, Computer-Aided Design (CAD), Engineering, Electrical Engineering, Field Technicians, Technical Documentation, High Voltage, Records Management.

Referees

References will be provided upon request.