

Kazi Sharif

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

Engineering Knowledge:

Renewable energy, Wind, Solar PV, Control system, Load flow studies, Fault analysis, Safety, Protection and relays, SCADA system, Power system stability and control, Load flow studies, Fault analysis, DFIGs, Generators, Motors, Inverters, UPS, SMES.

Frameworks and Methodologies:

SAP CMMS, OEM documentation, Public policy on power generation, 4G, 5G, Wifi, Smart grid, Project Management, Grid Integration

Software and Tools:

MATLAB, Simulink, PSCAD, PSS/e, PSSE, Power factory- DigSilent, AutoCAD, C/C++, Python, LabVIEW, OrCAD PSPICE, Microwind DSCH, LabVOLT, Microsoft Office, Microsoft Visio, Microsoft Project, Arduino, VHDL, VLSI, and PLC.

Standards:

AS/NZS3000, AS/NZS2067, AS7000, State regulations, National Electricity Rules, State/territory based rules/codes and Australian Electrical standards

Professional Profile

- Professional electrical engineer, accredited by Engineers Australia, possessing 5+ years of industry and 5+ years of research experience in power system stability analysis, renewable energy integration, smart grid, control systems, AC and DC power systems and related project management with an extensive background in operation and maintenance.
- Recognized experience in wind and solar grid connection, grid integration, capacity planning, fault analysis, design review, network studies with detailed specification and configuration with strong knowledge in solving technical problems, root cause analysis, process development, establishing teamwork along with maintaining a positive attitude and safe work environment.
- Proven experience in reviewing and developing engineering network design documentation, detailed technical reports, analysis, with high levels of attention to detail.
- Superior ability in managing in-house and sub-contractors, end users, stakeholders, project coordinators with a proven record of delivering outcomes in the complex project meeting targets.
- Excellent communication (verbal, written, presentation) and analytical skills, 'can do attitude', meeting client queries within a timely manner, work priority, attention to detail and an aptitude to work in a diverse team.

Experience

Research Engineer

Swinburne University of Technology

**Dec 2012 – Current
Melbourne, Australia**

- Power system feasibility studies, renewable energy integration studies & project management of multidisciplinary engineering R&D projects.
- Performing design, modeling, simulation and analysis of power systems with high/low voltage power systems with substations and control systems.
- 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.
- Collaborating with supervisors, faculty, students and other stakeholders across different departments to conduct interdisciplinary research
- Technical report writing, application notes, protocol development, quality assurance, data management, technical presentations, acceptance processes, database documentation, work instructions, work aids and check-lists and monitoring end to end process flows and identifying any blockages.

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.
- Led several control system projects involving renewable energy to improve overall system efficiency, protection and effectiveness.

- Completed stability studies on all wind turbines and analyzed their performances with disturbances and interference on other power electronic devices.

On-job Electrical Projects:

- Investigation of critical parameters for stability analysis of wind generation systems with DFIGs.
- Stability enhancement of DFIG wind turbine using LQR pitch control over rated wind speed.
- Agglomerative Hierarchical Clustering of DFIG-based Wind Turbines Using PCA Measurement- based Coherency.
- Enhancement of transient stability of DFIG wind turbine using active disturbance rejection controller

Technical Officer

Jan 2017 – Feb 2019

OneWifi Australia

Melbourne, Australia

- Provided technical support and maintenance services for Network Operations Centre (NOC), OneWi-Fi and field operation team, troubleshooting, Corrective and preventive maintenance, Interacting with technical core and network operation center team, clients & stakeholders.
- Provided project management support including site survey, onsite supervision, installation, and project documentation.
- Prepared, revised, and finalized constructed Wi-Fi site technical reports, network designs, updated versions, and other related documents.

Key Achievements:

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

Sessional Staff

Dec 2012 – Current

Swinburne University of Technology

Melbourne, Australia

- Extracted, compiled and tracked data, and analyzed data to generate reports.
- Worked with other team members to complete special projects and achieve project deadlines.
- Developed optimized data collection and qualifying procedures.
- Leveraged analytical tools to develop efficient system operations. Performed daily data queries and prepared reports on daily, weekly, monthly, and quarterly basis.
- Used advanced Excel functions to generate spreadsheets and pivot tables.

Power Jr. Engineer

Apr 2011 – Dec 2012

Orascom Telecom BD Ltd

Melbourne, Australia

- Managed and lead the day to day power operation and maintenance of telecommunication sites by in-house and vendor team.
- Capacity planning of power systems and transmission facilities.
- Provided technical and subject matter expert support to NOC (Network Operations Centre), field operation team, special project and vendor team.
- Conducted site visits to undertake commissioning, QA tasks and troubleshooting, data center rack installation and power deployments.

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)

Dec 2009 - Mar 2011

Holcim Bangladesh Ltd

Melbourne, Australia

- Operation and maintenance of cement plant with substation.
- Planning and execution of preventive maintenance and troubleshooting of Electrical Motors and all electrical devices on manufacturing plant.

- Planning and execution of energy consumption reduction projects to optimize power consumption of the plant.
- Monitoring and controlling electrical substation and lead plant control room operation.
- Designing, planning and commissioning electrical engineering expansion projects.

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.

Professional Development

• PSSE applications - network studies, power-flow Analysis, and renewable energy integration	Jun 2016
• Applications of PSCAD - transient Studies, HVDC and wind by Manitoba HVDC	Mar 2014
• Basic DC power systems and DC power system sizing by AEG power solution	Sep 2012
• PowerSuite overall application by Eltek Valere	Jun 2012
• LV/MV training by IBEC & CESD consultant	Apr 2012
• Overview of SCADA systems by Dhaka electric supply company ltd	May 2007
• Industry engaged learning in BTCL, CERS, and BARC.	Apr 2007

Education

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- Doctor of Philosophy (PhD) in Electrical and Electronic Engineering at Swinburne University of Technology.
 - Key Study Areas: Power system stability and control, Renewable energy integration, Wind turbines
 - Bachelor of Science (BSc) in Electrical and Electronic Engineering at Islamic University of Technology, Bangladesh.
 - Key Study Areas: Electrical circuits, Electronics, Electrical machines, Digital electronics, Industrial electronics, Telecommunication engineering, Transmission and distribution, and Power station.

Skills

MS Word, MS Excel, MS Office, Project management, Python, Quality management, Test equipment, Design of Experiments, Vendor management, Quality improvement, Cost reduction, Data and statistical analysis, Report generation, Time management, Interpersonal communication, Site integration, Customer service, Customer support, Safety, Trouble shooting, Experience modelling and testing with PSS®E software, Experience with PSCAD carrying out dynamic simulations, model coding and testing, Experience working in an engineering consultancy, AEMO, Transmission NSPs, Distribution NSPs and/or clients, Knowledge and experience in high voltage protection systems, and/or generator control systems for large scale grid connected traditional and renewable generation and batteries, Knowledge of the National Electricity Rules or equivalent state/territory based rules/codes. Professional Engineer (EA), Renewable power generation, transmission or distribution industries within Australia, including experience in power systems studies, Grid connection studies and project implementation, Experience in grid connection procedures with AEMO, DNSP's & TNSP's, DNSP Connection Standards, AEMO and National Electricity Rules, Static and dynamic power system studies, Transmission and Distribution grids in the NEM, NERs and industry accepted practices. Power system analysis and planning, Transmission system planning, power system modelling and dynamic analysis, Transient stability studies, load flow studies, fault studies, transmission system planning, generator connection studies and renewable integration, simulation software, PSS/E, DigSilent Power factory, Matlab, Python Fortran, C/C++, PSCAD, Onsite generator testing (R2 testing) for compliance and power system model validation, Generator Commissioning that include R2/hold point testing.