

MOHAMMAD MRAYAT

Mechanical Engineer

Location: Qatar | KSA

Phone: +974 7067 7598 | +962 799 766 815 | +966 50 88 750 38

Email: Mohalmrayat@gmail.com



PROFESSIONAL SUMMARY

Dynamic and results-driven **Mechanical Engineer** with **16 years** of expertise in **Renewable Energy** (Wind & Solar) and **Power Generation** (Oil & Gas) O&M. Proficient in managing **End-to-End Project Lifecycles**, including installation, commissioning, maintenance, and **Troubleshooting** of intricate mechanical, electrical, and hydraulic systems. Renowned for enhancing system reliability, streamlining **Operational Efficiency**, and ensuring strict adherence to international standards. Skilled in **Leading Diverse Teams**, implementing proactive maintenance strategies, and spearheading **Energy Optimization** initiatives in high-pressure, mission-critical **Environments**.

EDUCATION

Bachelor's Mechanical Engineering | Tafila Technical University, Jordan | **2003 –2008**

MEMBERSHIPS & REGISTRATIONS

- **Jordan Engineers Association** (Membership No: 314920)
 - **Qtatar UPDA (MMUP) Grade B** (Registration No: 37450)
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KEY SKILLS

- **Renewable** Energy Systems (Wind & Solar)
 - Operations & Maintenance for **(Oil & Gas)**
 - **Power** Generation & **Industrial** Projects
 - Project **Management** & Site **Supervision**
 - Energy Efficiency **Optimization**
 - **Troubleshooting** & Diagnostics
 - **Safety** Management (LOTO, GWO)
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SOFTWARE & TOOLS

- SAP
 - WISE
 - EPMS
 - AutoCAD
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CERTIFICATIONS & TRAINING

- Engine W50DF, Engine Room, **Power Plant Management** Wärtsilä Land & Sea Academy, **Finland**
- Ordinary, Qualified, **LOTO 1,2, D,C,B Level**, Vestas S.r.l., Service Department, **Italia**
- B_Level - **TR Gridstreamer**, Videbæk, Technical Training Centre, **Denmark**
- **GWO** Approved Training (Working at Heights, Manual Handling, Fire Awareness, First Aid), Cresto AB
- ABB (TPL 76-C) **Turbocharger** O&M Advanced
- GRH-Series **Compressor** O&M Advanced
- GEA Westfalia **Separator** mode of Operation

PROFESSIONAL EXPERIENCE

WTG Expert

OCA GLOGAL Consulting, KSA Waad Al Shamal Wind Turbine Project (WAS) 500 MW | Feb 2025 – Present

- Monitor and review the installation, testing, and commissioning of wind turbine generators (WTGs) to ensure compliance with technical specifications and **Contractual Obligations**.
- Review and approve **WTG-Related Documentation**, including method statements, risk assessments, and work procedures.
- Oversee the installation of turbine towers, nacelles, blades, and other components, ensuring alignment with **Design Specifications and Safety Standards**.
- Inspect mechanical and electrical installations, verifying adherence to quality and **Technical Requirements**.
- Witness and validate **WTG Commissioning Tests**, including grid synchronization, load testing, and performance testing.
- Ensure that all **Functional Tests** and parameter settings comply with grid codes and project specifications.
- Supervise **Troubleshooting Activities** during the commissioning phase to address technical issues.
- Conduct **Quality Inspections** of delivered WTG components, ensuring no damage or non-conformities.
- Ensure proper **handling, storage, and transport** of turbine components to avoid damage or degradation.
- Ensure all WTG-related site activities adhere to **HSE Standards** and regulations.
- Monitor and enforce **Safety Procedures** during high-risk activities, such as lifting and assembly.
- Collaborate with EPC contractors, WTG suppliers, and other stakeholders to **resolve technical and logistical issues**.
- Report daily progress, **Challenges**, and resolutions to the Owner's Engineer team and project stakeholders.
- Participate in regular **Coordination Meetings** to ensure alignment among all parties involved in WTG activities.
- Provide on-site technical expertise for complex issues related to WTGs, including mechanical, electrical, and **SCADA Systems**.
- Support **Root Cause Analysis** and corrective actions for any failures or defects.
- Verify the integration of WTGs with the substation and grid infrastructure, ensuring compliance with **Local Grid Codes**.
- Support **Grid Connection Tests**, including protection settings and communication protocols.
- Maintain accurate records of installation and commissioning activities, including **Punch Lists** and non-conformity reports.
- Prepare detailed progress and **Completion Reports**, highlighting key findings and recommendations.
- Provide guidance and **On-Site Training** to local personnel on WTG operations, maintenance, and troubleshooting.
- **Support knowledge** sharing to enhance the skills of the on-site team.
- Address any site-related **Technical Issues** that arise during WTG installation or commissioning.
- **Propose Solutions** for unforeseen challenges, ensuring minimal disruption to the project schedule.
- Ensure that all WTG activities comply with **International Standards (e.g., IEC, EN)** and local regulatory requirements in Saudi Arabia.
- Participate in **Final Inspections** and acceptance tests to confirm that WTGs meet all contractual and performance requirements.
- Ensure all as-built documentation, test certificates, and manuals are submitted and approved for **Project Handover**.
- Ensure that all punch list items are addressed and resolved before **Final Acceptance**.

MEP Principal Mechanical Engineer

MOSTAQBAL Consulting Engineering, Jordan | Sep 2021 – Sep 2023

- Led mechanical system Installation, Commissioning, and Maintenance for **infrastructural projects**.
- Ensured compliance with international codes, including **ASME, EN, NFPA, IFC, and ISO Standards**, in addition to client requirements for designing, installing, and maintaining mechanical systems.
- Streamlined the management of **Project Documentation**, including Submittals, **VO, MIR, WIR, NCRs, SORs, and RFIs**. Implementing optimized processes that saved the company in potential costs.

Site Lead

GE Renewable Energy, Tafila, Jordan | Jan 2020 – May 2021

- Directed O&M teams of **100 MW wind turbine** systems to ensure optimal **Availability & Reliability**.
- Coordinated **Major Component Exchange** including generators and gearboxes.
- Monitored and optimized the performance of wind turbines and entire wind farms by tracking critical **(KPIs)**.
- Managed the **Pre-Commissioning, Commissioning, & Maintenance** of GE137- 3.6 MW turbines.
- Ensuring successful project delivery and alignment with **International Standards (e.g. ANSI, IEEE, IEC & EN)**.
- Ensured compliance with stringent **Safety Standards (OSHA, IEC)** and local regulations, minimizing risk and promoting a zero-incident safety culture on-site.

Site Coordinator Engineer

Al OMARIA Construction Company, Tafila, Jordan | Jul 2019 – Jan 2020

- Oversaw the Supply, Installation, and Commissioning of **Residential Solar Energy Systems**.
- Led the **Design and execution** of Solar Energy Projects, ensuring compliance with international standards (NEC, BS EN, IFC & UL).
- Managed **Cost Estimates, Project Bidding, and Client Contracts**, ensuring project profitability.

Team Leader

VESTAS Wind Systems A/S, Tafila, Jordan | Apr 2015 – Apr 2019

- Led a team in the maintenance, troubleshooting, and repair of a **117 MW wind farm**, ensuring optimal performance of **V112-3.0 MW turbines**.
- Diagnosed and resolved complex mechanical, electrical, and hydraulic system issues, significantly improving operational reliability and **Reducing Downtime**.
- Performed detailed turbine **Blade Inspections and Gearbox Endoscopies**, identifying early signs of wear and optimizing turbine performance through proactive maintenance.
- Spearheaded implementing a predictive maintenance program, resulting in a 10% reduction in unplanned downtime and **Improving Overall System Availability**.
- Implemented and optimized **Preventive Maintenance Schedules**, improving system uptime.

Senior Mechanical Engineer

KPS, KEPCO Public Enterprise, Amman, Jordan | Aug 2013 – Jul 2014

- Managed the **Mech. Dep.** for a **600 MW Diesel Engines power plant**, optimizing operations and maintenance.
- Developed **Maintenance Schedules** and ensured the reliable operation of **Wärtsilä 18V50DF Engines, Compressors, and Fuel Systems** at the IPP3 project.
- Led **Pre-Commissioning, Commissioning, and Performance Testing** for plant equipment.
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Operation Engineer (Shift In-Charge)

Wärtsilä Gulf FZE, Qatrana Cement Company, Karak, Jordan | Mar 2010 – Jul 2013

- Supervised **Plant Operations**, optimizing **Energy Dispatch** and leading **Routine Maintenance**.
- Managed critical sys, inclusive **Wärtsilä 18V32 Engines, Separators, Compressors, Turbocharger & Boilers**.
- **Energy Dispatch Optimizing** and coordination with **NEPCO & Control room** procedures.
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Operation & Maintenance Engineer

RAWABI for Mining Co. (Gypsum & Gypsum Board Factory), Tafila, Jordan | Jun 2008 – Nov 2009

- Supervised **Installation and Maintenance** of gypsum production lines.
- Developed & implemented preventive maintenance programs to **Improve Reliability** and reduce downtime.