



ARSLAN KHALID

MECHANICAL BIM DESIGN ENGINEER

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LINKEDIN PROFILE

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Wadi Laban, Riyadh, Saudi Arabia



OBJECTIVE:

An exceptionally energetic and result-oriented Mechanical Engineer with vast experience of more than 4 years in designing and coordinating mechanical and plumbing systems. Proficient in Revit, AutoCAD, and Navisworks. Passionate about optimizing building performance through efficient **BIM** workflows. Expertise in creating detailed MEP models (**LOD 500**), clash detection, and system coordination. I am proficient in creating families, custom templates, and managing complex projects. Skilled in generating accurate Bills of Quantities (BOQs) for projects.

PROFESSIONAL AFFILIATION:

Certified as Registered Engineer by Pakistan Engineering Council (PEC) compatible with Washington Accord (OBE) under Regd. No. MECH/52590.

CAREER SKILLS:

- BIM 360
- Revit
- Navisworks
- Autodesk Construction Cloud (ACC)
- LOD 400 & LOD 500
- Carrier HAP
- Microsoft Office
- AutoCAD
- Leadership
- Excellent Communication
- Time Planning
- Teamwork
- Document Controller
- ISO 19650

WORK EXPERIENCES:

04 Yrs, 4 Months

AL Hajry Overseas.

Riyadh, Saudi Arabia

October 2025 – Present

Mechanical BIM Engineer

Responsibilities:

- Developed Revit models using **CAD** and **PDF**.
- Prepared MEP shop, elevation, and detailed drawings as per **LOD 300–500** standards.
- Performed **Model-Based Quantity Take-Offs** from Revit.
- Preparation of **Sample Boards** for Contractor review and Material approval.
- Preparation of **Material Submittals** of Mechanical systems.
- Extracted coordinated drawings with proper **Annotation and Tagging** for submission.
- Created **Custom Revit families** according to project and client requirements.
- Prepared and updated **As-Built Drawings** based on site changes.
- Reviewed and interpreted engineering drawings and technical specifications.
- Prepared **MEP Coordination Drawings** to resolve clashes.
- Maintained organized **Soft and Hard** copy drawing records.
- Executed tasks independently while ensuring **Timely and Safe MEP Work Execution**.



MCGC Engineering Pvt. Ltd.

Islamabad, Pakistan

August 2024 – October 2025

Mechanical Design BIM Engineer

Responsibilities:

- Designing of **HVAC & Plumbing** using **ASHRAE, SMACNA, SBC, UPC** and **IPC** standards (**ISO19650**).
- Proficient in developing technical reports and executing heat load analysis using **Carrier HAP**, static



pressure calculations via **Elite Duct Size** and head loss assessments using **Pipe Flow Expert**.

- Creation, organization, and maintenance of **BIM** models for MEP Systems throughout the project lifecycle.
- Selection of HVAC systems based on calculations and Catalogue provided by Manufacturer.
- Selection of duct accessories from the manufacturer's software provided based on calculations and criteria.
- Make Bulk changes and modifications in some specific model element parameters (if required) using Revit plugin "**DIROOT-One filter**".
- Export bulk of Sheets and views from Revit to different formats like PDF and DWG using Revit plugin "**DIROOTS-Pro sheet**".
- Review detailed design **Shop drawings, IFC Drawings & As-Built Drawings** on **AutoCAD** and **REVIT**.
- Perform **Coordination** and **Clash detection** between different disciplines using "**Navisworks**" and "**REVIT**".
- Ensure the consistency, accuracy, and quality of BIM models.
- Creation of **Quantity Takeoff** in Revit using efficient, smart techniques and Revit plugins like "**DIROOTS-Sheet link**", according to client requirements.
- Make necessary changes in Revit family parameters that will be required to make **Bill of Quantities (BOQ)** and **tags** on the sheets.
- Develop a **BIM execution plan (BEP)** outlining the project's BIM requirements, standards, and protocols.
- Develop the **Master Information Delivery Plan (MIDP)** to maintain the smooth flow of deliverables.

Seegapak Pvt. Ltd

Wah Cantt, Pakistan

September 2021 – August 2024



MEP Design Engineer

Responsibilities:

- Planning, designing, and managing **HVAC** and **Plumbing systems** using **ASHRAE, SMACNA, SBC, UPC** and **IPC** standards (**ISO19650**).
- Design and implement **HVAC** and **Plumbing systems**, and modifications that help to improve safety, reliability, and cost-effectiveness.
- Preparation of technical reports, heat load calculations using "**Carrier HAP**" software, static pressure calculations using "**Elite Duct Size**" software, & head loss calculations using "**Pipe Flow Expert**", etc.
- Modeling the ductwork and pipework in "**Revit**" software.
- Review detailed design **Shop drawings, IFC Drawings & As-Built Drawings**, specifications, and design documentation.
- Create **3D Revit models** of different commercial, Residential and Industrial projects.
- Perform Coordination and Clash detection between different disciplines using "**Navisworks**" and "**Revit**".
- **BOQ** and **Quantity Takeoff** in "**Revit**" software using efficient techniques and Plugins like "**Di Roots**".
- Attend meetings with clients, contractors & consultants.
- Supervision of mechanical drafting team.
- Develop in-depth progress reports that include all the relevant information on tasks and the timeline of the ongoing project.
- Suggest modifications to ensure safety and energy-efficient performance of mechanical equipment.
- Setting the goals for the team, co-creating communication strategies with the teammates.
- Provide technical advice on designs and site construction.
Prepare detailed calculations, technical specifications, procurement documents, design packages, proposals, and technical reports, assist with cost estimates, analyses, and other materials for procurement and construction.

COMPLETED PROJECTS:

- **Hydrogen and Innovation Development Center (HIDC) Industrial Support Facilities (ISF) NEOM OXAGON, Kingdom of Saudi Arabia.**
 - **BIM** Modeling and Prepare shop drawings from Stage 4A to 4B (**LOD 400** and **LOD 500**).
 - Manage the **BIM** models and Documentations on **Autodesk Construction Cloud (ACC)** platform.
 - Develop the Review submittals and Transmittals on **ACC**.
 - Creation and management of detailed **BIM** models for HVAC systems, ensuring accurate representation of ductwork, piping, and equipment layouts.
 - Collaboration with engineers to refine designs, optimize space utilization, and improve system efficiency.
 - Generate equipment schedules and **Bill of Quantities (BOQ)**.
 - Coordinated mechanical services with other disciplines, and ensured
 - Compliance with industry standards and client requirements.
- **Shushah Island Client Office and Accommodation on Platform, NEOM Kingdom of Saudi Arabia**
 - Designing and modelling the HVAC, Plumbing, and Fire Protection System for 3B Stage.
 - Facilitate communication and collaboration using **BIM** models to ensure coordination across disciplines.
 - Ensure compliance with company policies, procedures and standards, applicable laws and regulations
 - Develop Detailed Design **Shop drawings** on **Revit**.
- **Shuqaiq 4 Desalination Plant, Shuqaiq KSA**
 - Preparing **Shop Drawings**.
 - Prepare **Equipment Schedules** for Procurement.
 - Prepare project specifications as per the client's requirements.
 - Make specifications and design documentation.
 - Attend meetings with clients, contractors & consultants.
- **Abu Dhabi International Airport Midfield Terminal Building (MTB) Abu Dhabi**
 - Modeling of HVAC, Plumbing, and Drainage Systems to **LOD 500**.
 - Perform coordination and **Clash Detection** between different disciplines using **Navisworks**.
 - Prepare **Attributes** List.
 - Provide Technical Support regarding Documentation.

REFERENCE PROJECTS:

- Fakeeh University Hospital, Dubai Silicon Oasis
- Temporary Site Accommodations in NEOM & RED SEA, KSA
- Shushah Island Welfare Facilities, SHUSHAH ISLAND, KSA
- Bella Rose Girls Higher Secondary School Shigar Valley, Gilgit Pakistan
- Oxagon ELAF Prefab Buildings NEOM City, KSA
- NEOM City Welfare Accommodation, Neom City KSA
- Bard Building Amazon, London
- Adobe Commercial Offices, London UK
- Chicago USA Wadi Safar Mazaraah Experience Center, Riyadh KSA.
- Parliament House of Somalia

ACADEMIC PROFILE:

BSc Engineering:

Discipline: Mechanical Engineering (October 2018 - August 2022)
Institute: University of Engineering and Technology (UET), Taxila, Pakistan

Intermediate:

Discipline: Mechanical Engineering (October 2016 - August 2018)
Institute: F.G. Degree College for Men Wah Cantt.

Matriculation:

Discipline: Matriculation in General Science (April 2014 - August 2016)
Institute: HMC Boys High School Taxila.