

MOHAMMAD SHADIK



Riyadh, Saudi Arabia



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PROFESSIONAL SUMMARY

Accomplished structural engineer with extensive expertise in structural dynamics, load calculations, and stress-strain analysis. Proficient in steel structures design and adept at using STAAD Pro, Etabs and AutoCAD for comprehensive structural analysis. Demonstrates a strong understanding of building regulations and design codes, ensuring compliance in all projects. Skilled in client liaison, facilitating effective communication and decision-making throughout project lifecycles. Career goal: to leverage technical skills and regulatory knowledge to contribute to innovative and sustainable engineering solutions.

WORK HISTORY

Structural Design Engineer, 04/2022 - Current AL Shahin Metal Industries, Riyadh, KSA

- Design and analyze complex steel structures and PEB systems (e.g., warehouses, industrial sheds, high-rise steel buildings, mezzanines, etc.) using relevant codes and standards (e.g., AISC, IS 800, MBMA, Eurocode).
- Perform load calculations for dead, live, wind, seismic, and equipment loads based on site-specific conditions.
- Develop structural framing plans and optimize steel member sizes for cost-effectiveness and structural stability.
- Prepare or review **GA drawings, fabrication drawings, and erection drawings.**
- Coordinate with drafting teams and ensure design intent is accurately reflected in all project drawings.
- Design bolted and welded connections, including base plates, gusset plates, bracing systems, and trusses, ensuring compliance with design codes and fabrication standards.
- Coordinate with detailing teams to ensure correct interpretation and execution of connection details.
- Collaborate with **project managers, architects, MEP teams, clients,** and site engineers to ensure the smooth integration of structural design with architectural and service requirements.
- Attend design coordination meetings and site visits when required.
- Propose alternate design solutions and value-engineering options to reduce material usage, improve constructability, and optimize cost without compromising performance or safety.
- Prepare **design reports, calculation sheets, material specifications,** and other engineering documentation for client approvals and regulatory submissions.

SKILLS

- Structural dynamics
- Decision-Making aptitude
- Load calculations capability
- Building regulations understanding
- Design codes adherence
- Client liaison capabilities
- Stress strain analysis competency
- Steel structures design
- Structural analysis expertise

LANGUAGES

English

Advanced

Hindi

Native

Arabic (Basic)

Elementary

EDUCATION

Bachelor of Technology, Civil Engineering, 05/2017
GLA University - India

SOFTWARE PROFICIENCY

- STAAD. Pro
- MBS (Metal building software)
- IDEA StatiCa (For connection design)
- TNX (For towers design)
- Auto CAD
- Excel
- MS Office
- ETABS (Basic)

- Provide technical support during the **fabrication** and **installation** phases.
- Address RFI (Request for Information) from the site or fabrication teams and issue design clarifications as needed.

Structural Design Engineer, 06/2017 - 02/2022

KPR INDIA LLP, Gurgaon, India

- Design and analyze **telecommunication towers** (guyed, monopole, self-supporting lattice towers) and **poles** for various loading conditions including antenna loads, wind, and seismic forces.
- Perform **capacity checks** and **structural assessments** of existing towers and poles to evaluate the impact of new equipment or upgrades.
- Use relevant international and local design standards (e.g., TIA-222, IS 875, IS 800, Eurocode, ASCE) for structural calculations.
- Develop **tower strengthening solutions** such as leg bracing, member replacements, and foundation enhancements for overloaded or aged towers.
- Recommend appropriate **retrofitting techniques** based on field conditions, material degradation, and load growth.
- Design strengthening for foundations, anchor bolts, and guy wires where necessary.
- Prepare and review structural calculation reports, load summaries, GA drawings, shop drawings, and bill of materials (BOM).
- Generate detailed strengthening layouts and reinforcement schemes.
- Interpret site survey reports, soil test data, and geotechnical inputs to tailor structural solutions specific to location.
- Conduct **feasibility analysis** for tower extensions, additional loading, or relocation.
- Design tower and pole foundations (pile, raft, isolated) based on soil investigation reports and loading conditions.
- Analyze and reinforce existing foundations where required due to load increase or structural distress.
- Ensure compliance with applicable design standards, safety norms, and client specifications.
- Prepare design calculation packages, compliance checklists, and QA/QC documentation for design approval and audits.

PERSONAL INFORMATION

- Passport Number: P7492741
- Date of birth: 10/20/93
- Nationality: Indian
- Marital status: Unmarried