

## CURRICULUM VITAE

### SHASHANK RAJBHOJ

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Experience : Total 22 years ( Middle East 9+ years)

### EXPERIENCE SUMMARY:

- ❖ Working as **Asst. General Manager (Design)** for Afcons Infrastructure Limited (Since 04 March 2015)
- ❖ Worked as **Sr. Technical Manager (Civil)** for Gammon India Limited Mumbai (20th Dec 2012-28<sup>th</sup> Feb 2015)
- ❖ Worked as **Team Leader - Structural Engineer (Grade 1)** for Tony Gee & Partners UAE (19<sup>th</sup> May 2010– 31<sup>st</sup> Oct 2012)
- ❖ Worked as a **Sr. Engineer** ALDAR Laing O'Rourke Jv Abu Dhabi UAE (13<sup>th</sup> Sept 2007 – 20<sup>th</sup> April 2010).
- ❖ Worked as a **Sr. Structural Engineer** Cleveland Bridge & Middle East Engineering (pvt) Ltd (3<sup>rd</sup> Apr 2006 – 23<sup>rd</sup> Aug 2007) Dubai, UAE
- ❖ Worked as **Sr. Engineer** for Oman Metal Industries & Contg. LLC Muscat, Oman (7<sup>th</sup> Dec 2003 – 30<sup>th</sup> March 2006)
- ❖ Worked as **Design Engineer** Gammon India Ltd., Mumbai.( 14<sup>th</sup> May 2001 – 30<sup>th</sup> Nov 2003)
- ❖ Worked as **Design Engineer** Stresscrete India Ltd. Mumbai.( 3<sup>rd</sup> June 2000 – 12<sup>th</sup> May 2001)
- ❖ Worked as **Trainee Engineer** in Crompton Greaves Limited (June 1999 – May 2000)
- ❖ Worked as **Lecturer** in PES college of Engineer, Aurangabad (July 1997 – April 1998)

### EDUCATIONAL QUALIFICATION:

- ❖ Master of Engineering (Civil - Structures) from V.J.T.I, Mumbai University (May/June 1998 – May/June 1999 course work completed)
- ❖ Thesis June 1999 to Jan 2000-Analysis of Closed Steel Transformer tank subjected to Internal Explosion at Crompton Greaves Limited
- ❖ Bachelor of Engineering (Civil Engineering) from Government. College of Engineering Aurangabad (May/June 1993 – May/June 1997)

### TECHNICAL SOFTWARE

- ❖ CAE(Finite Element Analysis) : ANSYS
- ❖ Design Software Packages : STAAD, MIDAS, Master Series, MathCAD, Wallap, Concise, AutoCAD

### Major Works Undertaken

#### Employer : Afcons Infrastructure Limited

- **Chenab Arch Railway Bridge project, Jammu J&K** - one of the Tallest Bridge in the world – 341m high, 1200m long, Arch Span 458m over river chenab.
  1. Coordination – Correspondences with clients, structural consultants and site to resolve technical issues. Attending WPR, MPR meetings and preparing minutes of the same.
  2. Checking the Engineering and fabrication drawings and preparing RFI and requesting to resolve queries in the Engineering and Fabrication drawings.
  3. Review and approve Steel fabrication drawings, checking the details as per the designs. Checking connection details for clashing with other fittings if any.
  4. Design of enabling structure – preparing scheme of push/pull launching of deck segments, erection of arch & erection of 100+ meters steel piers.
  5. Design of Workshop plants – 3nos for fabrication of steel structures at site (120mx36m)
  6. Technical query - Review the GFC drawings and raise Technical Query (TQ) to confirm the interpretation of a detail, specification or note on the construction drawings or to secure a documented directive or clarification from the Structural Consultant, architect or client that is needed to continue work.

- **MG Setu Project, Patna Bihar–**

1. Design co-ordination, enabling structure and Stability check for Existing Well foundation design for Replacement of existing Superstructure of 4 lane balance cantilever RCC structure by Steel Through –type Truss simply supported of 121m span for 5.575 Km length bridge over Ganga river on NH-19 with E485 grade steel material.
2. Inhouse design of Steel Through –type Truss simply supported of 121m span for 5.575 Km length bridge over Ganga river on NH-19 with E410 grade steel material.
3. Review and approve Steel fabrication drawings, checking the details as per the designs. Checking connection details for clashing with other fittings if any.
4. Checking material specifications, test certificates from suppliers for bolts, steel materials.
5. Inhouse design of dismantling of the Concrete super structure of the existing bridge.
6. Design check of Substructure and foundation during the construction stage and replaced superstructure of New truss load
7. Inhouse design and co-ordination of erection of Land span truss.
8. Design co-ordination of enabling structure of water span truss for Cantilever Construction Method.
9. Responsible for implementing and expediting design review and verification by following standard guidelines.
10. Handle the task of monitoring activities of junior engineers in areas of adherence of regulatory codes and standards
11. Responsible for designing technical specifications and checking of computer aided design flows

- **Pandoh Project, Himachal Pradesh–**

Four laning of Pandoh bypass to Takoli Section of NH21 (Himachal Pradesh)

1. Coordination – Correspondences with clients, structural consultants and site to resolve technical issues. Attending WPR, MPR meetings and preparing minutes of the same.
2. Review of DBR & design of 16nos Concrete Bridges & 55 culverts on the Highway designed by consultants, attend & arranging design meetings to resolve comments given in-house & by proof consultants.
3. Design co-ordination of enabling structure & input from constructability point of view.
4. Handle the task of monitoring activities of junior engineers in areas of adherence of regulatory codes and standards.
5. Responsible for designing technical specifications and checking of computer aided design flows.

- **Metro Rail Project New Delhi–**

1. Coordination – Correspondences with clients, structural consultants and site to resolve technical issues. Attending WPR, MPR meetings and preparing minutes of the same.
2. Review of DBR & Design of Metro Bridge – Super structure consist of 4 span continuous precast girders with Diaphragm and pile foundation.
3. The Metro project CC-90 is completed within schedule as mentioned in contract document.

**Employer : Gammon India Limited**

**Responsibility in brief:- Working as team leader handing all the design related matters of the project and reporting to Chief Operating officer (COO) of the Company.**

- **Nathani Height project, Mumbai Maharashtra** - one of the Tallest Residential structure in India – 72 Storey heights – responsible for following technical parameters on the project.
  1. Coordination – Correspondences with clients, PMC and structural consultants to resolve technical issues. Attending WPR, MPR meetings and preparing minutes of the same.
  2. Attend design meetings with Structural consultants and provide Contractor input from constructability point of view.
  3. Prepare value engineering proposals of structural elements keeping in view of saving manhours, cost and ease of construction.
  4. Supervising all construction activities including providing technical inputs for methodologies of construction & monitoring sites.
  5. RFI – Review the GFC drawings and raise (RFI) Request for information to confirm the interpretation of a detail, specification or note on the construction drawings or to secure a documented directive or clarification from the Structural Consultant, architect or client.
  6. Work Method Statements – The systematic procedure to establish the sequence of construction, technical, Safety parameters and tolerances is documented prior to actual construction.

7. Structural Designs/Drawings –
  - Support Construction team on technical issues.
  - Study and support the CAD technicians in preparing the Shop drawing.
  - Temporary Structural Designs for Sliding platform, tower crane supports, foundations, ties etc.
  - Coordinating Tower crane/Hoist crane reactions generated on building structure to the Structural Consultants.
  - Inhouse Design of Steel Buildings – 3 storey for Site offices.

**Employer : Tony Gee & Partners (Consulting Engineers)**

**Responsibility in brief:- Worked equivalent to Team leader on the post of Structural Engineer (Grade – 1) reporting to Technical Director (Regional)**

Responsible for Design of Structures for jobs undertaken and bidding projects, managing engineering projects with team of structural engineers as project team leader. Preparing budgetary proposals for design works and keeping tab on cost control and monitoring manhours utilized against the budget proposed.

Responsible for structural designs, issuing design check certificates and site inspection reports.

Evaluating projects specifications and determining the viability based on technical & economic parameters.

Networking with Architects, Clients, Contractors to ascertain technical specifications, construction related essentials

❖ **Major Engineering Works**

**A) Bridge Projects – Worked on Bridge project for 18 months**

1. **Refurbishment of Ruwais Steel Bridge Jetty for Gasco Abu Dhabi, UAE.**  
Ruwais Steel bridge Jetty span 44m, Design Check of **jetty Steel structure** for Maintenance work for heavy rolling loads such as cranes and moving vehicles.
2. **Hodariyat Island cable stay Bridge for VSL Middle East, Abu Dhabi, UAE**  
Responsible for checking of enabling works - Management and co-ordination of an Independent Category III design check by Tony Gee in Hong Kong.
3. **Dubai International project Airport for LaingO'Rourke LLC Abu Dhabi, UAE, Detailed design Support Bridge** - Airport Runway base for Dubai Prom carrying the moving tower crane loading and assessment of pre-stressed concrete beam, pile cap and piles under the loading from the tower crane and support frame.

**B) Airport Projects – Worked on Airport construction project for 4 months**

4. **Jeddah Airport Station for Al Reyami Construction LLC, Jeddah, Saudi Arabia**  
Erection Methodology for Concourse Roof Modules, Link Bridges and Lift Shafts and design of various lifting elements for enabling the construction works.

**C) Misc. Projects – Worked on designs of tunnel, slip form and minor bridge project for 8 months**

5. **Slipform for Ichthys Onshore LNG facilities, Australia**  
Slipform Design for 35m Silo for BRM Construction LLC according to Australian Code AS/NZ4100 code
6. **Al Raha project for Ghantoot Construction LLC, Abu Dhabi UAE**  
Design of Diaphragm and Secant wall 1.7 km long wall.  
Design of Composite bridge – 24m span using plate girder – **2months on minor bridge**
7. **Tunnel Project for Al- Nabooda Abu Dhabi, UAE**  
**Al Ras Al Akhdar Tunnel** - Design of Diaphragm Wall Sheet pile & additional for rebar base slab for tunnels for load due to thermal expansion to limit crack width.

**Employer : ALDAR LaingO’rourke Jv**

**Al Raha beach development project** in total was to develop 11km long x 4km wide area along the sea coast with total estimated value of \$18b. The package included 6 interchanges being constructed on Abu Dhabi – Dubai Highway, several precinct bridges and high rise residential and commercial buildings.

Responsibility in brief:-

Responsible for preparing schemes and conceptual designs for Bridges and Steel buildings keeping in view the build-ability and construction aspects.

Responsible for design of structures/connections, monitoring progress of shop drawings and preparing BOQ, cost estimates. Responsible to check the shop drawings and release them for fabrication as scheduled, structures prepare material requisition, weekly progress reports

Checking sub-contractors designs and issuing design check certificate, Site inspection reports, risk assessment statements and clearance certificates.

Responsibility included works carried out by Company’s plant office in Dubai. Monitoring and handing team of engineers and CAD technician team for the assigned works.

Analyze structure, prepare civil design documents, formulate / implement strategies and achieve operating goals while balancing risks

❖ **Major Engineering Works**

**1. Design of Steel Industrial Structures (Fabrication workshop plant for employer)**

- Workshop Building with 10 T Electrical Operated Crane (56.2m x 26m)
- Protection & Manufacturing Building with 5 Ton EOT Crane
- Main Storage building & Overhead covered areas

**2. Composite Structure Design**

- Design of Roof span 36x36m , the top slab was composed of profiled sheets and transverse connected together through shear connectors supported on long span truss for the Ball room project in Dubai.

**3. Steel Building Design**

- Steel Structure for Skydiving simulator building, Dubai– *Eurocode BS EN 1993: 1-8*

**4. Design of Bridge**

- Design of simply supported Steel pedestrian bridge (Skywalk).
- Design of Composite Bridge – 16m, 20m & 24m span with Steel plate girder with composite deck slab

**5. Miscellaneous Works.**

A) **Works for Interchange & Precinct Bridges, Abu Dhabi**

Design review and enabling structure for Interchanges & Precinct Bridges  
Checking Design of Sheet piling and cofferdams for subcontractors designs  
Design of Tower Crane foundations and ties for hoist & tower cranes.

**Employer : CLEVELAND BRIDGE ENGINEERING MIDDLE EAST (PVT) LIMITED**

Responsibility in brief:-

As a senior structural Engineer my role on this job was to Design adequate connections, draw feasible sketches, getting approval from the Consultants and releasing approved sketched to the draughtsmen for preparation of shop drawings. Carrying out a desk study of the available information and keeping updated record of the progress in the connection designs and percentage of completion of the undertaken job.

- Responsible for implementing and expediting design review and verification by following standard guidelines
- Handle the task of monitoring activities of junior engineers in areas of adherence of regulatory codes and standards
- Responsible for designing technical specifications and checking of computer aided design flows
- Handle responsibilities of providing guidelines to the project team in areas of project scope and budget.

❖ **Steel Connection design and Checking & review of the Fabrication drawings for following Steel structures**

❖ **Dubai International Airport Project, Dubai UAE**

1. Structural Steel CONCOURSE II Bridge level +EL 22.5 – *AISC Code*
2. Structural Steel Raised steel floor baggage hall building– *AISC Code*

**Industrial Project Rabhig Saudi Arabia**

3. Structural Steel Plant 01, 08, 10, 10CCR, Battery limit Structure for Foster Wheeler Ltd (client : ENOC) – *AISC Code*
4. Platforms, Pipe racks, Lifting frames for Rabigh Project Saudi Arabia for JGC corporation – *BS Standards*

❖ **Dubai Aluminum Smelter Plant, DUBAL Dubai, UAE**

5. Structural Steel Crane Maintenance Bay Building - *BS Standards*
6. Structural Steel Bridge Potline 5B, 6B – *BS Standards*
7. Structural Steel Aluminum Fluoride Building– *BS Standards*

**Employer : OMAN METAL INDUSTRIES & CONTG. CO. LLC., Muscat Oman**

Responsibility in brief:-

Worked as **team leader and project coordinator** of the Structure and bid team, responsible for design of structures/connections, monitoring progress of shop drawings and preparing BOQ, cost estimates. Responsible to check the shop drawings and release them for fabrication as scheduled, structures prepare material requisition, weekly progress reports, monthly invoices and project follow-ups & post project estimates.

❖ **Major Engineering Works**

- ❖ Checking connection designs, Monitoring and issuing fabrication drawings for Detailing of Belt Conveyor Structure & Lime Stone Crusher Building for Cement Plant Expansion for IHI Japan, at **Yemen**
- ❖ Connection Design, Detailing and Monitoring and issuing fabrication drawings for of Pipe Stanchions, Pipe Supports, Racks and platform for Sohar Refinery Project JGC Japan, at **Sohar Oman**
- ❖ Checking connection designs, Monitoring and issuing fabrication drawings for Detailing of Structural steel supports and racks for Macchi Boilers Italy at **Saudi Arabia**.
- ❖ Analysis and Design of Steel Approach Pedestrian Bridge at Buraimi for L&T Oman – **Muscat Oman**.

**Employer : GAMMON INDIA LIMITED, Mumbai India**

Responsibility in brief:-

Responsible for assessment and design of enabling structure used for construction of bridge i.e launching truss, travelling gantry, cantilever construction gantry and support elements. Preparation of Erection Methodology and construction of Well foundations

Preparation of scheme and method statement for construction of bridges and management of available resources through monitoring the inventory list and design steel section from the available stock list and to make use of available stock in enabling structure design.

❖ **Major Engineering Works**

- ❖ Construction stage Analysis of cantilever Arch bridge & Design of Form Traveler Gantry for Construction of Arch Bridge with Well foundation at ends of Arch at **Ramshila Kullu (Himachal Pradesh)**
- ❖ Analysis and Design of Goliath gantry (100 T) capacity span 30m for construction of simply supported bridge and Erection Methodology for Well foundation at **Baitarni (Orissa)**.
- ❖ Analysis and Design of Steel Supporting arrangement for Construction of ROB-1,2,3,4 & 5 for NHAI Road works **Orissa & West Bengal (Packages NHAI OR –V & NHAI OR/WB-1)**
- ❖ Analysis of Launching Truss (250 T) capacity for Construction of Simply Supported bridge 48m each Span and Erection Methodology for Well foundation for **Suvarnarekha Bridge (Orissa)**.

- ❖ Analysis of Pretension girders for NHAI project for rolling load of Auto-Launching girder on 48m Span for **Suvarnarekha Bridge (Orissa)**.
- ❖ Analysis of Launching Truss for Segmental Bridge Construction for Delhi Metro Rail Corporation Limited (**DMRCL**) **Delhi**

**Employer : STRESSCRETE INDIA LIMITED, Mumbai India**

Design of precast elements such as beams Columns during permanent and temporary condition.

- ❖ Analysis & Design of precast pretension girders for Karanja Bridge Jetty, Mumbai.
- ❖

**Employer : CROMPTON GREAVES LIMITED, Mumbai India (Post Graduation Engineering Thesis)**

- ❖ Analysis of Closed Steel Transformer tank subjected to Internal Explosion.
- ❖ Stress Analysis by Finite Element method of large Transformer tanks (Closed Steel Tanks) Subjected to Internal Rapid Rise in Pressure which leads to explosion.
- ❖ Computer modelling, analysis and interpretation using ANSYS package.

#### **Membership**

##### **Fellow Member**

- ❖ Indian Institute of Engineers
- ❖ Chartered Engineer - Indian Institute of Engineers

##### **Affiliated Member**

- ❖ Society of Engineers – UAE

#### **V) Extra Curricular Activities**

- ❖ Article on Innovative Enabling Structures in GAMMON BULLITIEN (Mar/Apr-03).
- ❖ Attended Internal Auditor Course for ISO: 2000 conducted by BVQI.
- ❖ Attended 2-Day Seminar on Pressure Vessel Designs in Muscat Oman
- ❖ Attended 2-Day Seminar Modern Trends in Steel Structures conducted by Institute of Engineers India.
- ❖ Won 3<sup>rd</sup> Prize for writing Article on Engineers Day on Innovative Method of erecting Tall piers.

#### **PERSONAL DETAILS:**

Name : Shashank Rajbhoj  
 Father's Name : Sudamrao Rajbhoj  
 Date of Birth : 25th Sept, 1975  
 Marital Status : Married.  
 Sex : Male

I hereby declare that all the information furnished in this application is true to the best of my knowledge

Place : Mumbai

SHASHANK RAJBHOJ