

BARATH VENKATACHALAM

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SUMMARY

Five years professional experience as piping engineer and mechanical engineer supporting design and manufacturing. Keen to build on experience, to learn, to contribute, and to make an impact.

EDUCATION

- B.E. Mechanical Engineering, SNS Institute, Anna University – GPA 8.2/10 Aug 2009 – Aug 2013
- PG Diploma, Piping Engineering, Suvidya Institute, Mumbai Aug 2013 – Nov 2013
- PG Diploma, Piping Stress Analysis, Suvidya Institute, Mumbai Nov 2013 – Dec 2013
- PG Diploma, Oil and Gas industry, Cameron Manufacturing India Aug 2016 – Aug 2017

TECHNICAL SKILLS

- Knowledgeable of codes and standards. Application experience with API 16D and ASME B31.3
- Proficient in *AutoCAD*, 3D modeling software (*Inventor*, *Solid Works*, *Solid Edge*), Piping Software (*Caesar*, *Spoolgen*, *PDMS*), and *MathCAD*.
- Experience with working on project in Detailed Engineering phase as member of EPC team.

PROFESSIONAL EXPERIENCE

Cameron Manufacturing India Pvt Ltd, Coimbatore

Jul 2016 – Feb 2020

Drilling Mechanical Engineer

- Created standardized BOP forging and assembly drawings with in *Inventor*. Included final drawings with associated parameters, including Inspection and Quality plans, in the SAP library for ready use in projects.
- Developed Excel-based tool for Blowout Preventor (BOP) Accumulator sizing calculations following the guidelines in API 16D. The tool was validated for accuracy, and subsequently used in many projects for accumulator sizing decisions, including number of bottles, volume per bottle, and efficiency.
- Performed hydraulic volumetric calculation of tension ring dogs in telescopic joint assembly in *Inventor* to estimate quantity of fluid required for actuation and de-actuation.
- Generated standardization documents of a new Riser design of Cameron. Generated high quality 3D models in *Inventor* and included model and drawings in the SAP library for use in projects.
- Performed fatigue failure analysis of drilling riser swivels using *MathCAD*. Predicted life cycle of critical components of swivel following company design guidelines.
- Estimated total volume and weight of wellhead and Christmas tree using *AutoCAD* for use during the manufacture of the equipment.

Vitec Engineering Consultants, Thane

May 2015 – May 2016

Piping Stress Engineer

- [Client: Bharat Petroleum Refinery] Performed stress analysis of piping at the bottoms section of Distillation tower in *Caesar*. Helped decide pipe route, supports required, and any Reboiler nozzle adjustment by ensuring that loads are within safe limits.
- [Client: Gharda Chemicals] Performed stress analysis of piping in Pump suction and discharge lines and in a shell-and-tube Heat Exchanger in *Caesar*. Checked if loads (vertical load, guide load, and limit stop) are within limits and helped optimize pipe supports and their locations. Checked and corrected isometric sheets.
- [Client: Jacobs] Performed stress analysis for service water pipes in a Shipyard in *Caesar* – long-distance and over-ground pipes. Helped optimize routing and support locations.

HRC Project Engineers Ltd, Jamnagar

Sep 2014 – Nov 2014

Piping Design Engineer

- [Client: Reliance Industries Limited] Helped identify spool pieces and weld locations to ensure that the spools fit in trucks using *Intergraph Smart Plant Spoolgen*. Executor at first and Inspector later.