

VASHKAR GHOSH

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Objective

Seeking a professional engineering position utilizing my technical experience, organizational abilities and interpersonal skills.

Education

- **Master of Science in Mechanical Engineering.** GPA: 3.63 out of 4.0. (2011).
University of Florida, Gainesville, FL
- **Bachelor of Engineering in Mechanical Engineering.** CGPA: 8.43 out of 10.00. (2007).
Manipal Institute of Technology, Manipal Academy of Higher Education. Manipal, India.

Experience

- **Sandvik, USA.** – Engineer. (2012 - Present).
Improving manufacturing processes and efficiency by applying design skills, engineering and manufacturing knowledge. Provide engineering support in production department to trouble shoot and resolve technical problems. Make engineering changes and modification. Support the implementation of new assembly line resolving engineering issues. Collaborating with configuration control and design engineering regarding product tooling and design to ensure effective production methods. Develop continuous improvement practices and implement projects such as root cause analysis and lean manufacturing. Developing work instruction and SOP's as needed.
- **Nanoscale Research Facility, University of Florida.** (2009 - 2012).
Maintenance and operations of clean room and the research facility, equipment assembly and troubleshooting. Maintaining and updating SOP's and technical documents for various systems and equipments. Providing technical and engineering support, reviewing and updating engineering and as built diagrams. Analyzing engineering systems and processes, process flow diagrams – PFD, and piping and instrumentation diagrams – P&ID. Setting up and monitoring gas sensors – Toxic Gas Management System. Materials and Chemical Inventory Management for the research facility.
- **Townley Engineering and Manufacturing Company, USA.** – Engineer Trainee – Intern. (2010).
Design, development and modeling for new products and molds. CNC coding, setting up tools and fixtures, machining and manufacturing. Centrifugal and submersible slurry pump analysis, assembly and testing. Overhauling and troubleshooting. Test summary and performance test report generation. Conduct inspection and generate repair inspection report.
- **Tata Consultancy Services Limited, India.** - Assistant System Engineer. (2007 – 2009).
Team Lead of a module providing technical and business solution. Requirement analysis, product development, and development of technical documents. Steer projects from concept stage to start of production. Enhanced the implemented ERP Oracle applications 11i components for my client McGraw-Hill Education to cater to their order to cash business cycle in their business units in USA and Canada. Presentation/Report open issues to clients, present solution and update progress on the ongoing projects.
- **“Engine Assembly and Testing”- Engine Division, Tata Motors Limited.**
Carried out a project on the assembly of diesel engines and its combustion process. Detailed analysis of the assembly line and Engine Testing procedures. Identified the defects in an assembled engine, its causes and the process of rectifying it.

Research/Academic Projects

- **“Analysis and modeling of double-effect Lithium Bromide/Water Absorption Refrigeration Unit.”** – Masters Research
Developed computational model and efficient property equations to be used in computer code for investigation and simulation of the system. Energy, material, heat and mass balances were written around each of the components and combined with the state equations for the thermodynamic properties of the lithium-bromide and water to yield a set of equations describing the system. Analyzing the effect of the different component temperatures and solution concentration on the performance of the system.

- **Energy Modeling and Building Simulation** - Analyzing building plans to develop energy models. (2011). Sizing, load calculations and simulation of Air Handling Units, Boiler and Chiller plants using Carrier HAP. Building simulation to determine annual energy use and annual cost analysis. Life Cycle Cost analysis, replacing and rescheduling key components for energy conservation to determine the annual cost savings and payback period.
- **“Study of Damping Coefficient using Magneto-Rheological Fluid”** – Undergraduate Research Performed detailed study and analysis of the Magneto Rheological fluids ("MR" fluids) properties and their application. Designed and fabricated MR Fluid apparatus to determine the damping coefficient of the fluid at different composition. Analyzing and plotting the variation in damping coefficient characteristics with varying current.
- **“Camless Engines”**- at Manipal Institute of Technology. Academic project and presented a seminar on the need for Camless Engines and advantages of Variable Valve Timing (VVT) technologies. Types of camless valve train mainly the electro-hydraulic and electro-mechanical type and their operations. (2006).

Skills

Programming Language: Oracle PL-Sql, Forms 6i, Java

Software: Carrier HAP /Auto CAD/ProE/Gibs Cam/Matlab/Microsoft Office/Lotus Notes.

Engineering Skills: Condition Monitoring, Mold Design, O&M for Buildings and Systems, Overhauling and troubleshooting, Environment Health and Safety, Six – Sigma, 5S.

Relevant Courses: Thermodynamics, Heat Transfer, HVAC, Design of Thermal Systems, Energy Management.

Co-Curricular Activities and Awards

- Certificate of Outstanding Achievement, University of Florida International Center.
- Achievement Award (partial tuition waiver) from the College of Engineering, University of Florida.
- Institute of Engineers, Mechanical Chapter – member.
- Best Project Award at Tata Consultancy Services-ILP (Bhubaneswar).
- Member of the student government - national level technical fest Techtatva at MIT Manipal.
- Captain of high school and college soccer team.