

Nijesh Jayakar

#8 VGP Ave, Dr. Seethapathy Nagar, Velachery,
Chennai, TN 600 042, India
nijeshjayakar@hotmail.com
+91-44-22432677, +91-44-52184102 (H)

Objective

Engineering position where field experience will add value to operations.

Profile

- Multi-talented Mechanical Engineer. Background features strong academic preparation and success in technical positions requiring personal initiative, mechanical expertise and imagination.
- Resourceful individual with creative problem solving, good communication and interpersonal skills.
- Worked for a reputed oil field services company, Baker Hughes INTEQ as a Logging While Drilling (LWD) Field Service Engineer in the Gulf of Mexico Region of the Continental U.S.A.
- Diverse analytical skills exercised over a broad span of educational, motivational, and technical topics. Co-author of two technical papers published in ASME (American Society of Mechanical Engineers) and in SOMIM (la Sociedad Mexicana de Ingeniería Mecánica). Member of ASME and NFES.
- Fluent in English, Tamil and Hindi; Familiarity with basic French.

Computer Skills

- *BHI Softwares:* Advantage, MSS, Drillworks/Predict, CASE, RigLink, BGGM, MAGCAP
- *Modeling:* SolidWorks, Pro/ENGINEER, AutoCAD
- *Engineering Analysis:* COSMOS, ANSYS, Pro/MECHANICA
- *Mathematical Tools:* MATLAB 6.5, Mathcad 8
- *Programming:* C, Java, FORTRAN
- *Miscellaneous:* MS Office (Word, Excel, PowerPoint, Access, and Outlook)

Education

Master of Science (Mechanical Engineering) **08/99 – 05/02**

Texas A&M University, College Station, Texas, U.S.A.

Bachelor of Engineering (Mechanical Engineering) **05/95 – 05/99**

Bharathiyar University, Coimbatore, India

Work Experience

Field Service Engineer **Baker Hughes INTEQ, Broussard, LA, U.S.A.** **07/02 – 12/04**

Worked as a LWD/MWD Field Service Engineer in the Gulf of Mexico/Continental U.S.A. region as part of the Drilling & Evaluation Division of Baker Hughes INTEQ.

- Expertise include Directional MWD, Gamma, Multiple Propagation Resistivity (MPR), Annular Pressure (PWD) logging tools, AutoTrak ® RCLS, OnTrak, Neutron Porosity and Formation Density tools (Advantage PLSSM).
- Trained new hires on various INTEQ's Formation Evaluation tools and softwares.
- Proficient in Formation Evaluation analysis involving basic and advanced Log Interpretation skills.
- Involved in Horizontal/Vertical/Multi-lateral Wells involving Short/Medium radius drilling conditions.
- Acquired skills in ECD management, KICK predictions, Shallow water flows, Pore Pressure analysis and basic knowledge of Bits, BHA, LCM, Wellbore instability conditions, HPHT drilling conditions and risk performance management.
- Thorough in real-time decision making, data delivery and management.

Graduate Assistant **Texas Co-operative Extension, TAMU, TX, U.S.A.** **06/01 – 10/01**

- Developed official web pages using Macromedia Flash, Dreamweaver and Corel Draw.
- Evaluated new technologies for implementation throughout the organization.

Research Assistant **Rotordynamics Laboratory, TAMU, TX, U.S.A.** **08/00 – 12/00**

- Actively assisted in assembling a vertical rotor test rig for the experimental analysis of various bearings and damper seals.
- Performed experiments on damper seals and bearings; measured pressure, temperature using transducers and studied the dynamic properties of the seals and bearings; conducted viscosity measurements on the lubricant oil used and studied the effects of the same on the performance of bearings and dampers.

Teaching Assistant **Mechanical Engineering Department, TAMU, TX, U.S.A.** **08/99 – 08/00**

- Actively assisted the faculty and students for the subjects, Thermodynamics and Mechanical Systems Design; aided students to use MATLAB, EES and LabView softwares effectively.
- Conducted class laboratory and tutorial sessions; developed and graded tests & homework assignments.

Intern **ELGI Equipments Pvt. Ltd., Coimbatore., India.** **04/98 – 05/98**

- Studied the manufacturing processes of various compressors including rotary and reciprocating compressors in the compressor design, fabrication, machining & assembly divisions of the Industry; analyzed and studied vibration, thermal and flow analysis; acquired basic knowledge of CNC and NC machines.

Projects

- **Develop Dimensionless Pi groups to model the force coefficients of Pocket Damper Seals (PDS) (M.S. Non-thesis Project).** Identified parameters and variables that affect the operation of a damper seal; developed and theoretically analyzed Pi groups involving damping, stiffness and leakage parameters; a viable design tool for the complete analysis of different PDS specifications was developed and implemented for further lab experimental analysis.
- **Design a new valve for down hole hydraulic systems for the Schlumberger MDT module.** Designed back-to-back 3 way hydraulic switching valve for a Schlumberger downhole Modular Dynamic Tester module; Deliverables to Schlumberger included solid models, FEA reports as well as detailed fabrication drawings to demonstrate valve features and functionality to satisfy Schlumberger specifications.
- **Imbalance Response and Threshold Speed of Instability of a flexible rotor mounted on Fluid Film Bearings - Predictions and Measurements.** Performed experimental analysis to predict and analyze instabilities and studied the effects of free-free and un-damped natural frequencies, critical speeds, lubricant viscosity, Imbalance response and Threshold speed of instability on an AMOCO rotor mounted on fluid film bearings.
- **Develop the missing steps of an approximate method to attain desirable bearing design.** Justified the approximations and assumptions while developing the missing steps of the method detailed in the technical paper, “Optimum bearing and support damping for unbalance response and stability of rotating machinery”, to calculate the optimum support damping for multi-mass flexible rotors.
- **Computer Aided Quality Cost Estimation of Agile Manufacturing Systems (B.E. Project).** Studied the influence of various costs in Agile Manufacturing Systems using TQM modeling; devised a method to economize an agile manufacturing environment.

Honors & Activities

- Awarded Scholarship in the Mechanical Engineering Department at Texas A&M University.
- Co-authored two research technical papers, “Effect of Frequency and Design Parameters on Pocket Damper Seal Performance” published in ASME and “Imbalance Response and Threshold Speed of Instability of a Flexible rotor mounted on Fluid-film Bearings - Measurements and Predictions” published in SOMIM.

Miscellaneous

- Eligible to work in India (Citizen)