

MANISH THORAT

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OBJECTIVE

Seeking Full-Time Position as a Mechanical Engineer

EDUCATION

Texas A&M University, College Station, Texas December 2009
Master of Science in Mechanical Engineering GPA: 3.88
Veermata Jijabai Technological Institute, University of Mumbai, India May 2007
Bachelors in Mechanical Engineering GPA: 3.92

WORK EXPERIENCE

Research Assistant, Turbomachinery Laboratory, Texas A&M University January 2008-Present
Development and modifications to one control volume model for Labyrinth seal force predictions
(Sponsor: Turbomachinery Research Consortium)

- Developed a model for Labyrinth seal force prediction for rotor surface velocities approaching Mach one
- Modified an existing isothermal labyrinth seal force prediction model which improves predictions compared to experiments
- Devised an adiabatic one control volume model for labyrinth seal force predictions
- Present work involves the inclusion of Real Gas Properties in Labyrinth seal analysis to improve the predictions in rotordynamic behavior of Labyrinth gas seals

COURSEWORK

Lubrication Theory, Dynamics of Rotating Machinery, Nonlinear Vibrations, Mechanical Vibrations, Engineering Dynamics, Control System Design, Mechatronics, Gas Dynamics, Finite Element Methods

COMPUTER SKILLS

- **Languages:** FORTRAN, C, C++, Visual Basic
- **Applications:** ANSYS, SolidWorks, MATLAB, XLTRC², Mathcad, MS Office

PROJECTS

Characterizing the effects of Lubricant Temperature and Viscosity on the Unbalance Response of a Rotor Supported on Flexure Pivot Tilting Pad Bearings August 2008-December 2008

- Conducted experiments and compared results with theoretical model developed

Design of Omniwheeled Robot May 2008- August 2008

- Designed a micro-controller based non-holonomic robot using Omni-wheels, DC motor actuation and optical feedback

Determination of Sweet-spot of a Baseball Bat using Experimental Modal Analysis January 2008-May 2008

- Developed a Finite Element Model for Baseball bats, conducted impact tests to validate theoretical model

Design of Control System for a Magnetically Excited Beam August 2007-December 2007

- Devised Control Strategies for the chaotic behavior of oscillations

Diffusion Bonding of Dissimilar Metals, Bhabha Atomic Research Centre (B.A.R.C.), India June 2006-May 2007

- Analyzed and implemented diffusion bonding process for bonding of Aluminum and Stainless Steel

LEADERSHIP AND HONORS

- Scholarship from Mechanical Engineering Department at Texas A&M University, Fall 2007
- K.C.Mahindra Scholarship for Professional Studies, 2007
- Managed a Gaming Event in Technovanza' 2005, an All-India Level Technical Festival and led a team of 4 volunteers

PUBLICATION

Thorat, M. and Childs, Dara W., *Predicted Rotordynamic Behavior of a Labyrinth Seal as Rotor Surface Speed Approaches Mach 1*, Proceedings of ASME International Gas Turbine Institute Turbo Expo, Orlando, USA 2009

PROFESSIONAL AFFILIATION

American Society of Mechanical Engineers (ASME)

WORK ELIGIBILITY

Authorized to work in the US through Optional Practical Training