

Mahesh Venkatesan

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SKILLS

- 1 year of experience in using Primavera Risk Analysis for Project Schedule Risk Analysis of oil and gas projects
- 1 year of experience in using @risk and Crystal Ball for Project Cost Risk Analysis of oil and gas projects
- 1 year of experience in solving Non Linear Differential Equations using MATLAB
- 6 months of experience using LabVIEW for experimental measurements of vibrations of beams
- 6 months of conventional modelling experience using SolidWorks
- Expert user of Microsoft Word, Excel and Powerpoint

EDUCATION

The University of Texas at Austin, Austin

Aug '12 – May '14 (expected)

M.S. in Mechanical Engineering

- Thesis: *Experimental analysis of a vertical axis wind turbine with solar cells mounted on it*
- GPA: 3.53/4

Indian Institute of Technology (IIT) Roorkee, Roorkee, India

Jul '07 – May '11

B.Tech in Mechanical Engineering

- Thesis: *Active Vibration Control using piezoelectric actuators implementing PID controller mechanism*
- GPA: 9.053/10

WORK EXPERIENCE

The University of Texas at Austin, Austin, Graduate Research Assistant

Feb '13 – Present

- Assembled a weather monitoring station to collect wind and solar data to be continuously recorded on a Data Acquisition System (DAQ)
- Developed a SolidWorks model to demonstrate the solar cell integration on a vertical axis 2x2 Marilyn wind turbine to achieve simultaneous collection of wind and solar energy
- Developed a SolidWorks model to demonstrate slip ring integration to achieve collection of solar energy from the solar cells mounted on the rotating wind turbine
- Coordinated the development of a fibre glass epoxy surface profile to act as a platform for mounting solar cells
- This project is currently in progress and is funded by Renewable Energy Solutions LLC, Washington DC

The University of Texas at Austin, Austin, Teaching Assistant

Sep '12 – May '13

- Conducted laboratory sessions for Fluid Mechanics for undergraduates in Mechanical Engineering
- Prepared and conducted exams and quizzes

Shell India Markets Pvt Ltd, Bangalore, Project Risk Analyst

Aug '11 – Jul '12

- Facilitated Cost and Schedule Risk Analysis Workshops for multi-billion and multi-million dollar *upstream* oil and gas projects like the groundbreaking Prelude Floating LNG (FLNG) and the Malampaya Gas Revamp Projects and suggested cost and schedule contingencies to the project teams
- Conducted/Facilitated Cost and Schedule Risk Analysis Workshops for multi-million dollar *downstream* oil and gas projects like the debottlenecking project of an Ethylene Cracker Complex at Bukom, Singapore
- Conducted Risk Review Workshop for the multi-billion dollar Majnoon Project in Iraq and compiled an exhaustive risk register for the project team's reference
- Constructed a learning session on Project Risk Management to educate oil and gas professionals on the techniques and benefits of Risk Management

Indian Institute of Technology (IIT) Roorkee, India, Undergraduate Researcher

Aug'10 – May '11

- Performed experimental analysis of Active Vibration Control using piezoelectric actuators implementing a PID control mechanism on a vibrating cantilever and hinged circular beams
- Constructed a theoretical model for PID control from first principles and validated it against experimental results via MATLAB

Indian Institute of Technology (IIT) Roorkee, India, Undergraduate Researcher

Nov'09 – May '10

- Developed theoretical models for temporal analysis of unsteady filling of Hydrogen cylinders from first principles and solved the resulting differential equations in MATLAB
- Objective of the project is to serve as theoretical reference model for a planned Hydrogen Research Lab at IIT Roorkee

PROFESSIONAL ACTIVITIES

Project Risk Management Team, Royal Dutch Shell

Aug'11 – Jul'12

- Participated in fortnightly risk management sessions with Shell professionals across the globe and discussed risk management practices with data from real time projects
- Conducted learning sessions on Project Risk Management for oil and gas professionals to advertise the benefits of a sound project risk management system to meet cost and schedule targets

COURSEWORK

Incompressible Flow

Advanced Thermodynamics

Advanced Engineering Analysis

Heat Transfer

Multi Scale Transport Phenomena

Introduction to Upstream Business

Introduction to CAPCO\$T

Mechanics of Solids