

# WILLIAM PEREIRA

919 E Lemon St, Apt 207 ♦ Tempe, AZ 85281 ♦ Phone: (480) 719-9064 ♦ wpereir1@asu.edu

## MECHANICAL ENGINEER

- ♦ Well-rounded knowledge of the leading engineering principles, tools, and practices with an emphasis on *designing, building and testing* of mechanical systems and *improving/optimizing* processes and operations.
- ♦ Expert in *analyzing data, resolving problems*, and providing *superb customer service*; experienced in writing comprehensive reports and creating compelling presentations.
- ♦ Societies: ASME, ISME, SAE.

## EDUCATION

**Arizona State University, 2010-2012**

Master of Science, Mechanical Engineering (CGPA: 3.5/4.0)

*Extracurricular:* Indian Students Association - Accounts In-charge, Events Planning, Student Welcoming.

**PES Institute of Technology, 2006-2010**

Bachelor of Engineering, Mechanical Engineering (CGPA: 3.9/4.0-Distinction)

*Extracurricular:* Aatma-Trisha Cultural Fest - Event Organizer (Gaming, Eng. Oral Quick Fire), Securing sponsorships.

### Relevant Courses:

Advanced Thermodynamics

Solar Thermal Engineering

Enterprise Modeling

Renewable Energy Engineering

Heat & Mass Transfer

Project Management

Power Plant Engineering

Manufacturing Processes

Engineering Economics

Energy Systems Engineering

Design Experimental Engineering

Statistical Quality Control

## COMPUTER & TECHNICAL SKILLS

**Programming:** *MatLab, CNC Train, Mathematica, C, C++, Engineering Equation Solver.*

**Simulation:** *SolidWorks, AutoCAD, ANSYS, Minitab, JMP, MeteoDyn, Solar Advisor Model (SAM) and WindSIM.*

**Applications:** *DMAIC, DFSS, FMEA, MS Office Suite (Word, Visio, Excel, PowerPoint, Access), UML, Internet.*

**Machine Shop**

## EXPERIENCE

**Arizona State University**

**Aug 2010 - May 2012**

### **Graduate Academic Projects**

- Designed and analyzed a 50 MW Tidal Power Plant. Increased efficiency to 79% at a reduced LCOE of \$0.10 KWh.
- Site Selection, Resource Estimation, Trade studies and Design of a 200 KW Hydro-turbine using AutoCAD. Carried out data modeling and analysis to estimate the investment, ROI and market viability.
- Reduced student admission procedure time at ASU using Enterprise Modeling principles and tools.
- Optimization of materials used in a Flat plate Solar Collector to increase efficiency to 46% and maintain economy in a solar heating system in under-developed countries.
- Presented a paper titled "Atmospheric Convection as a Heat Engine".
- Designed and analyzed an advanced Thermodynamic and Mathematical model of a Steam Engine.

**Arizona State University**

### **Administrative Assistant**

**Jan 2011 - Aug 2011**

Data entry/processing, Office errands, photocopying, scanning and filing documents, maintain office data bases using Microsoft Office applications, and providing support for other projects as needed.

**Al Shirawi Motors, Inc. (Volvo, Scania & Caterpillar)**

**Jul 2009 - Aug 2009**

### **Mechanical Engineering Intern**

- Applied CAD/CAE and ANSYS PDL tools to design the basic structure of a Telescopic boom and developed simulations to determine regions of high-acting stresses at the winch mounting and suggested corrective measure through material change.
- Product research and development, trade studies, technical presentation and peer reviews. Supported lead Mechanical Engineers in part and assembly design, engineering analysis, and testing. Handled service and build maintenance operations on Heavy Duty Vehicles.

**PES Institute of Technology**

**Aug 2006 - June 2010**

### **Undergraduate Academic Projects**

- Re-Engineered a mechanical Prosthetic leg for increased ergonomics and performance. Tested on patient. Cost of prototype: USD \$55. Sir M. V Award for "Best Social Impact" for B.E Project, 2010.
- Won 1<sup>st</sup> place for paper presentation on Prosthetics at the Annual National Engineers Conference.
- Presented a seminar on Prostheses based on advanced Bio-Mechatronic principles to an audience of 150.