JAYKISHANKUMAR PATEL

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Authorized to work in United States for any employer

ACADEMIC CREDENTIAS

Master of Engineering: Mechanical engineering **GPA: 3.22/4.0**
University of Texas Arlington - Arlington, TX May 2016
Relevant Courses: Finite Element Methods Control System Analysis and Synthesis
Advance Finite Element Methods Thermal Science

Bachelor of Engineering: Aeronautical Engineering **GPA: 3.24/4.0**
Gujarat Technological University – Gujarat, India June 2013
Relevant Courses: Aerodynamics CFD Composite Materials
Thermal science Fluid Dynamics Solid Mechanics

INDUSTRIAL EXPOSURE

- **Suzlon Blade Technology, Gujarat , India | Project trainee** **June 2012 - Dec 2012**
  Assigned to design wind turbine rotor blade section and perform experiments to study Aerodynamic characteristics of wind rotor blade for optimum performance. Study of application of vortex generators and different flow visualization techniques was carried out during training period.
- Worked as a workshop supervisor at Techno works Ltd. V.U.Nagar, Gujarat. **July 2013 - May 2014**
- Worked as a tutor for undergraduate courses and higher secondary level courses.
  Instructed various subjects like mathematics, chemistry, basic control theory, solid mechanics.

RESEARCH/ PROJECTS

- **"Evaluation of Cooling Architecture and Control Strategies in Airflow Provisioning a Modular Data Center" at NSF/IUCRC research center, UTA (Spring 2016).** Study of modular Data Center equipped with a direct-indirect evaporative cooling unit was carried out to obtain optimum airflow provisioning. Air flow rate of IT equipment was predicted by performing active flow curve experiments on Airflow Bench at research center. Commercial CFD code 6-Sigma DC Room used to create model of modular data center with different airflow provisioning architecture and detail comparative study of different configuration was carried out.
- **Experimental Analysis of Aerodynamic Characteristics of Wind Rotor Blades for Optimum Performance.** Designed wind rotor blade section with NACA 4430 aero foil and experimentally analyzed flow in subsonic wind tunnel test section. Vortex generators were implemented to delay stall and flow separation for optimum performance. Flow visualization techniques used to get the results and compared results with analytical data obtained from ANSYS Fluent simulations.
- **Anti-Torque and Yaw Control System for Helicopters Using Circulation Control Technique (NOTAR Configuration) based on Numerical analysis of the tail boom of helicopters.** Designed no tail rotor configuration tail boom of helicopter using CATIA. Simulation and two dimensional analysis of circulation control tail boom was carried out using ANSYS Fluent for required aerodynamic characteristics. Grid convergence study was carried out in order to obtain continuum value of coefficient of force.
- **Stress Analysis of Rectangular Plate with Central Circular Hole.** Designed quadrant of plate using solid works and analysis was carried out in ANSYS Workbench and APDL to find maximum stress. Compared results obtained for coarse mesh as well as fine mesh with theoretically data.

TECHNICAL SKILLS

Designing Software: SOLIDWORKS, Autodesk AutoCAD, CATIA V5
Simulation Software: 6-Sigma DC Room, ANSYS (FLUENT, Mechanical APDL, Work Bench, ICEPAK), Flotherm
Programming Language: C, C++, MATLAB
Documentation: Microsoft Office tools

ACTIVITIES

- Volunteered for "Explore the Sardar Within" an initiative of the Sardar Patel University to sensitize the youth and teenagers to various leadership qualities through volunteers.
- Worked with "Patriot Club of India" in an urban slum to support the young children in their studies.