**Noel H. Davis**

**2150 Heavenly View Dr**

**Ooltewah Tn, 37363**

**Phone: (980) 322-3137**

**Email: ndavis22001@gmail.com**

**Primary Job Experience:**  Fellow Mechanical Engineer

**Education:** BSME, Clemson University, December 1983

**Objective:** To obtain a position as a fellow engineer

**Experience:**

**Siemens Energy Division Employment Dates: 04/11 to 02/16**

**Charlotte, NC Position: Fellow Engineer**

* Manufacturing support of factory products related to compressor hardware.
* Structural analysis of next generation gas turbine compressor rotating hardware, using Ansys, ProMechanica, NX & various LCF & fracture codes.
* Technical lead of field failure analysis.
* Mentor new engineers and teach classes on gas turbine design and structural integrity.

**Ingersoll Rand Industrial Division Employment Dates: 10/06 to 04/11**

**Davidson, NC Position: Principal Engineer**

* Design & analysis of rotating components for centrifugal process compressors, use of Ansys and BladePro to construct FEA models and evaluate structural integrity.
* Rotordynamics assessment of high speed helical gear trains and design of fluid film bearings using programs such as Dyrobes & KISS.
* Development of internal design criteria for structural durability, modal analysis, failure methodology & testing protocol for centrifugal compressors.
* Design and fielded high speed (64,000 RPM) centrifugal impeller radio telemetry strain gage system, thus providing direct correlation & validation of predicted (FEA) stress/strain results.
* Analyzed and qualified the first use of ductile cast iron interstage cooler for use in a process compressor for the Chinese indigenous market. This required the development of a GD/ASME/PED global specification, FEA calibrated strain gage burst test and casting manufacturing certification.
* Redesign of high speed motor compressor impeller due to HCF failures stemming from scroll harmonic induced blade vibration. New components were validated using radio telemetry strain gage measurement and laser Doppler holographic modal testing.

**Siemens/Westinghouse Power Corporation (SWPC) Employment Dates:** 4/95 to 10/06

**Orlando, Fl.**  **Position:**  Principal Engineer

* Structural lead of 501G/FD industrial gas turbine rotating axial compressor blade and stator programs, this included HCF, LCF, fatigue and modal analysis of the airfoils and disks.
* Worked on a number of field durability issues for combustion turbine parts, ranging from turbine blade cracking to compressor stator HCF, with focus on root cause and rapid response.
* Highly proficient with analytical tools such as CADDS5, ANSYS, Patran and Pro-Engineer. 15+ year background in 3-D mechanical FEM modeling and analysis.
* Support of field testing at Berlin Test Bed and various customer sites monitoring strain gage and general compressor durability.

**Allied-Signal Corp. Employment Dates: 4/96 to 5/97**

**Phoenix, AZ. Position: Turbine Component Designe**r

* Design optimization and analysis of turbine blades including attachments, using Ansys and MECHANICA. Stress & heat transfer modeling of high speed turbine disk trains.
* Redesign of T53 & T55 helicopter engine turbine blades experiencing LCF failure, use of Inconel powder metallurgy for improved fatigue strength.

**Rolls Royce, Inc. Employment Dates: 5/90 to 4/95**

**Atlanta, GA. Position: Senior Mechanical Engineer**

* Conceptual development of various aircraft propulsion components for advanced aircraft such as the ASTOVL/JSF. This included turbine exhaust struts, hollow fan blades, counter-rotating lift fans and prototype parts.
* Performed analysis ranging from CFD to Kinematics, using analytical tools such as P3/Patran,

ABAQUS, Nastran, Unigraphics and MECHANICA in a concurrent engineering system.

**Pratt and Whitney Aircraft Employment Dates: 11/86 to 5/90**

**West Palm Beach, Fl. Position: Senior Design Engineer**

* Lead mechanical design engineer for advanced jet engine rotating parts. With DOD Secret Clearance.
* Designed F119 1st stage hollow fan blade including stress, thermal and vibration. Performed stress/ aero/fatigue/vibration analysis of rotating parts (blades,disks,airseals) using NASTRAN and hand tools.

**Newport News Shipyard Employment Dates: 6/84 to 11/86**

**Newport News, Va. Position: Design Engineer**

* Created designs for large scale submarine nuclear power plant components (pumps, heat exchanges...)
* Design of rotor train model of SSN-688 primary shafting, incl water stave bearings and gear drive.