

To gain eminence as a full time professional & work in challenging position utilizing my flair for innovation, communication skills & team building skills.

#### Education:

- Texas A & M University, College Station, Texas.  
Master of Science in: **Aerospace Engineering** **GPA: 3.30** **Graduation Date: May '04**  
Spring '04
- University of Madras, Chennai, India.  
Bachelor of Engineering in: **Mechanical Engineering** **GPA: 3.75** **Summer '01**

#### Work Experience:

**Graduate Assistant of Research, Shape Memory Alloy Research Team, Aerospace Engineering** Aug. '01- Jan. '04

Trained on the following equipments:

MTS test frames	Metallograph	Micro-polisher	Nano-indentor
AFM	DSC	HIP	JEOL 2010 TEM

#### Papers:

“Thermomechanical Characterization of SMA Actuators under Cyclic Loading”, Parikshith K. Kumar, Dimitris C. Lagoudas, Pavlin B. Entchev. IMECE2003-42933, ASME 2003.

#### Current Research:

##### **Characterization and design of High temperature Shape Memory Alloy Actuator, TAMU, Texas**

Design a connecting fixture for deep well drill system capable of disconnecting the device at the end of the operation. (Schlumberger project).

##### **Characterization of High temperature Shape Memory Alloys, TAMU, Texas**

Characterized alloy of a specific stoichiometric proportion of NiTiPd, studying the effects of precipitation and heat treatment. (Boeing project).

##### **Characterization of SMA wire actuators, TAMU, Texas**

Characterized large diameter wires based on microstructure, heat treatment, fatigue life and thermo-mechanical loading to improve their efficiency in actuator design. (Boeing project).

#### Internships:

##### **Analysis & re-design of Heat Sink in Alternators**

Nov. '00 – April '01

- Analyzed heat sinks in alternators. **LUCAS-TVS LTD., Chennai, India.**
- The part was designed using AutoCAD & Pro-E and was analyzed using Design Space & ANSYS.
- Results were compared with experimental results and suitable design modifications were suggested.

##### **Optimization of production time and plant layout**

May '99 – June '99

- Increased the production rate from 20 coaches a month to 25 coaches. **Integral Coach Factory, Chennai, India.**
- Studied the company resources, production time, planning and the overall efficiency of the manufacturing system.
- Effort provided hands on experience with various modern manufacturing systems.

#### Academic Projects:

- Modeled wire behavior using the Boyd-Lagoudas model for SMA materials and compared the result with experimental evaluation.
- Calculated the Taylor factor of any textured material and plot the value using a MATLAB code in the standard pole figure triangle.
- Designed a special gripping technique to test Shape Memory Alloys wires without creating excessive stress concentration at the area of gripping.

#### Computer Skills:

- **Advanced Design and analysis software:** Pro-Engineer 2000i<sup>2</sup>, Design Space 5.1, ANSYS 5.4, ABAQUS, Solidworks
- **Diploma in Advanced Mechanical CAD** (AutoCAD, Mechanical Desktop)
- **Programming languages:** C, C++, Fortran, Maple, and MATLAB
- **Packages:** 3D Studio Max, Adobe Photoshop, MS Office (Word, Excel, Power Point, Access), and Latex

#### Honors and Achievements:

- Treasurer, India Association-Texas A&M University (2003-04).
- President, India Association-Texas A&M University (2004-05).
- Member of ASME.
- Secretary of Student affairs and Chief student advisor for the placement cell of the department in Undergraduate.
- Member of and publication at the “International Library of Poetry”

**References:** Available on request