

## QUALIFICATIONS

Master of Science, San Diego State University.  
Specialization: Mechanical Engineering Design  
GPA: 3.85

Bachelor of Engineering, Sardar Patel University, India  
Specialization: Mechanical Engineering  
Graduated with First Class

## COMPUTER SKILLS

Software: Matlab, MSC. Marc-Mentat, MSC. Pastran/Nastran, Mentor Graphics, AutoCAD, Cadence, Franc2D  
Languages: C, Fortran 77  
Operating Systems: Windows XP, UNIX  
Microsoft Office: MS Word, Power Point, Project, and Excel

## GRADUATE COURSES

Finite Element Methods, Theory of Elasticity, Mechanical Behavior of Engineering Materials, Engineering Design-Analytical Methods, Non Metallic Materials, Mechanics of Sintering, Simulation of Engineering Systems.

## RESEARCH WORK (MS Thesis):

Fatigue Fracture Analysis Of Flip Chip Solder Bump Under Thermal Cycling Conditions Using Global-Local Finite Element Analysis And Composite Mixture Models For Underfill Material:

Found the effect of underfill filler volume fraction on fatigue life of flip chip.  
Used finite element method to design and analyze flip chip.  
MSC. Marc Mentat and Franc2D finite element tools were used to model flip chip.  
This design was based on stresses and fracture mechanism of a flip chip under different applied mechanical/thermal loads.

## ACADEMIC PROJECTS

Finite element modeling and analysis of a torque arm using Marc-Mentat.  
It included modeling & application of loads, boundary conditions and material properties to find displacement and stresses in the torque arm.

Analysis of Finite Width Plate with a Hole using Marc-Mentat.  
Carried out finite element modeling of a plate using unstructured and structured mesh & generated contour plots of stresses.

Analysis of frame and truss using Matlab.

Generated a deformed structure in Matlab by applying coordinates of nodes, material properties, boundary conditions and loads. Calculated stresses for each element in the structure.

#### TERM PAPERS/PRESENTATIONS

Term Paper on: Fracture toughness in cellular material.

Term Paper on: Scherer's model of sintering.

Presentation in Mechanics of sintering on topic of: Scherer's model of sintering.

Presentation in Theory of Elasticity on topic of: Residual stresses in cold expanded hole.

Presentation for research work: Introduction to concept of proposed research topic and work.