

# Dineshkumar Manikandan

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## EDUCATION

### ARIZONA STATE UNIVERSITY

M.S IN MECHANICAL ENG.

Jan 2017 – Dec 2018

GPA: 3.81/4

### SRI KRISHNA COLLEGE OF ENG & TECH

B.E IN MECHANICAL ENG.

Aug 2012 – Apr 2016

GPA: 8.78 / 10

## SKILLS

### PROGRAMMING:

Matlab • C program

### CAD/CAE software:

Solidworks • Pro/E • ANSYS •

CATIA • Spaceclaim • AUTOCAD

### Simulation software:

ARENA, SIMULINK

### Manufacturing skills:

GD&T, Lean Techniques, Additive

Manufacturing, Work

Standardization, *Kaizen*, QFD

## COURSEWORK

Finite Element in Engineering,  
Simulating Manufacturing Systems,  
Lean Manufacturing, Design  
Optimization, Modern  
Manufacturing Methods, Design for  
Additive manufacturing,  
Probabilistic Methods for  
Engineering Analysis and Design

## ONLINE COURSE

With Certificates

Creo Parametric, Autodesk  
Fusion Integration CAD/  
CAM/ CAE, Digital  
Manufacturing & Design,  
Advanced Manufacturing  
Process Analysis

## LINKEDIN PROFILE

[www.linkedin.com/in/dineshkumar-manikandan-451b63132/](http://www.linkedin.com/in/dineshkumar-manikandan-451b63132/)

## OBJECTIVE

Mechanical Engineering graduate interested in design and manufacturing of mechanical products with better understanding and knowledge of mechanical design and FEA. Expertise in CAD modeling and have few hands-on experience in fabrication of automotive parts.

## EXPERIENCE

### MIT CAST ALLOYS | PRODUCTION ENGINEERING INTERN

AUG 2016 – DEC 2016 | COIMBATORE, INDIA

- Controlled daily total production by collecting data and increased the productivity by implementing lean techniques.
- Improved the production efficiency by 20% through eliminating unwanted motion of labors and over processing.

Project: Used CAD design for the prototype of sand molding of many products and reduced the number of failure casting molds.

## ORGANIZATION & SAE EVENTS

### SAEINDIA SKCET Collegiate club | TEAM LEAD/ DESIGN ENGINEER

SEPT 2014 – MAR 2015 | GO-KART TEAM: BIONIC CRUSSADERS

- Calculated the necessary design parameters for the performance of engine and hands on experience in milling, grinding and welding.
- Designed the kart and assembled parts using Pro/E software and worked **GD&T** with steering and transmission team.

### SAEINDIA SKCET Collegiate club | 3D CAD DESIGNER

MAR 2014 – AUG 2014 | MINI-BIKE TEAM: VORTEX RACING

- Modeled a new frame – miniature model of Harley Davidson for an event. Created each part and assembled using CREO and involved in prototype of model till the complete bike fabrication.

## ACADEMIC PROJECTS

### MECHANICAL BEHAVIOR OF SPIDER-WEB HONEYCOMB STRUCTURE

Jan 2018 – Present

- Calculated and designed the shape and geometry of spider-web honeycomb. 3-D printed the model with Nylon material for testing using SLS for compression testing.

### OPTIMIZATION OF GE BRACKET

Mar 2018

- Used ANSYS topology optimization tool for mass reduction. Repaired the model in SpaceClaim and reduced the mass by 71%.

### SHAPE OPTIMIZATION OF FSAE CHASSIS

Oct 2017 – Dec 2017

- Analyzed the stress concentration, to optimize each member that exceeds FOS 2. Used **Hyper Latin Cube sampling** for better response surface and **Direct optimization** techniques in ANSYS. Reduced the weight of the chassis and increased the stiffness by optimizing the dimensions of the chassis.

### MINI-PROJECT: WORK STANDARDIZATION AND SMED

Nov 2017

- Used SMED technique and reduced 25% of the lead time for coffee making process. Practiced *kaizen* to standardize the process and introduced work standardization chart. Followed 5S and used standard tools.

### DESIGN OF NOTCHED PLATE

Mar 2017 – May 2017

- Designed and modified notched plate by removing materials above the notch, to reduce the stress concentration. Analyzed using ANSYS and increased the strength of the new designed plate by 43%.