

# Kishore Mysore Nagaraja

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## EDUCATION

### The University of Texas at Dallas

Ph.D. Student in Mechanical Engineering. GPA: 3.57/4.00

Dallas, TX

Spring 2024

### PES University

BE in Mechanical Engineering. GPA: 8.13/10

India

August 2016

### Government CPC Polytechnic

Diploma in Mechanical Engineering. GPA: 8.5/10

India

June 2013

## EXPERIENCE

### The University of Texas at Dallas

Dallas, TX

#### 1. Graduate Researcher

2020 – Present

- Multi-physics, multi-scale modeling of metal additive manufacturing processes such as Powder Bed Fusion (PBF), and Direct Energy Deposition (DED).
- Microstructure evolution modeling of Hybrid Additive Manufacturing process involving DED and Ultrasonic Nanocrystal Surface Modification.
- Laser Shock Peening experimentation.

#### 2. Teaching Assistant

2020 – Present

- Computational modeling for additive manufacturing using Ansys.

### PES University

India

#### 1. Research Assistant

Oct 2018 – Dec 2019

- Chassis design for 16 seats light commercial vehicle. – QuantumPoint, US.
- Computational validation of a Bus for Blast Proof. – Enlivening Tech, India.
- Dental Tooth decay and repair modeling.

#### 2. Research Assistant

Jan 2016 – Feb 2017

- Building dual propulsion composite unmanned aerial vehicle. – Safran Aerospace, India.
- Friction Stir Welding Experimentation of Copper and Aluminum Metals. – Siemens, India.
- Rotordynamics Experimentation of a Helical Gear coupled with Motor. – Siemens, India.

### Siemens Technology and Services Private Limited

India

#### 1. Junior Design Engineer

Mar 2017 – Sep 2018

- Life estimation of Polymer Matrix Composites.
- Failure Mode Effective Analysis for 6 production line healthcare equipment for CrO<sub>2</sub>.
- Digital Twin application in Composite Materials Design for Fatigue.
- Gas Turbine advanced engineering collaborative solution testing.
- Advanced composite manufacturing intelligence in NX Laminate.
- Developing an alternative composite manufacturing process.

## **SKILL**

**CAE Software:** Flow3D, Abaqus, Ansys, Nastran, LS Dyna, Hypermesh, Ansa.

**CAD Software:** NX Cad, Catia, Solidworks, Autodesk Inventor.

**Programming Software:** Basic Proficiency – Matlab, Python, Fortran.

## **CONFERENCE**

1. Kishore MN, Wei Li, Youngsik Pyun, Dong Qian “Modeling Analysis of UNSM’s Effect on Residual Stress in Laser Directed Energy Deposition”, USNCCM16, Chicago, US, July 2021.
2. Kishore MN, Hrushikesh Patil, Suresh Nagesh “Life Prediction Model for Composite Leaf Spring”, 8<sup>th</sup> Before Reality Conference, BETA CAE Systems. Munich, Germany, 2019.
3. Kishore MN, M Sai Krishna, Suresh Nagesh “Performance Analysis of Continuously Varying Transmission for an Electric Vehicles”, IEEE Sustainable Technology Conference, Phoenix, US, 2016.
4. Kishore MN, M Sai Krishna, Suresh Nagesh “Innovative Landing Gear for Unmanned Aerial Vehicles”, IEEE Global Humanitarian Technology Conference, Seattle, US, 2016.

## **COMPETITION**

1. ASME Innovative Design Simulation Challenge 2016, ASME Additive Manufacturing Conference, Charlotte, US, 2016. – Best Utility Prize – \$4500 – “Design of Landing Gear for Unmanned Aerial Vehicle using 3D Printing Technology”.
2. ASME Poster Competition 2016, ASME Commercialization of Micro, Nano, and Emerging Technology Conference, Houston, US, 2016. – Best Poster Prize – \$500 – “CVT Technology for the Electric Vehicles and the Additive Manufacturing Capability in UAV Design”.

## **PUBLICATION**

1. Wei Li, Kishore Mysore Nagaraja, Xinchang Zhang, Dong Qian, Hongbing Lu, “Multi-physics Modeling of Powder Bed Fusion and Thermal Stress”, 2021 - Manuscript Submitted.
2. Wei Li, Kishore Mysore Nagaraja, “Modeling Study of Porosity’s Effect on Grain Evolution During Directed Energy Deposition”, 2021 - Manuscript Submitted.