

Apurba DEKA

## Master – aeronautical and space structures

91120 Palaiseau, France

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### EDUCATION

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#### ISAE SUPAERO

*Advanced Master's in Aeronautical and Space Structures*

Project: Damage characterisation of a composite flap structure

Courses: Advanced FEA, mechanics of materials, advanced structural dynamics

Toulouse, France

Sep 2019 - Dec 2020

#### National Institute of Technology Karnataka

*Bachelor of Technology in Mechanical Engineering*

Thesis: Modeling and experimental studies on the dynamics of a bolt joint structure

Courses: Applied FEA, experimental stress analysis, solid mechanics, strength of materials

Mangalore, India

July 2011 – May 2015

### SKILLS SUMMARY

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- Certifications: Black Belt Lean Six Sigma
- Software and tools: ANSYS, SpaceClaim, Catia V5, Matlab, Python, Hypermesh, MS Office
- Languages: Hindi (mother tongue), English (professional proficiency), French (beginner A1), German (beginner A1)

### EXPERIENCE

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#### CEA Paris-Saclay

*Structural analysis engineer intern, system engineering department*

- Conducted nonlinear static structural analysis of a complex high field detector magnet yoke in ANSYS mechanical
- Evaluated von Mises stress, stress linearisation and concluded the structure's integrity for the intended use
- Modeled contacts, bolted joints and meshed with quadratic solid and beam finite elements

Saclay, France

July 2020 – Dec 2020

#### Lupin Limited

*Senior executive, utility department*

- Directed a team of 30 employees for planning, execution, maintenance and monitoring of mechanical utility systems, achieved 5-10 % yearly improvement in specific power consumption in utilities
- Prepared, analysed monthly energy consumption worth of 0,75 M€/month and its variance in product manufacturing, reduced variance in a few products from 20-30 % to below 10 %
- Co-ordinated a cross functional team, prepared & presented energy budget (average 11 MW) for 2 years
- Analysed FMEA of DMAIC methodology for root cause analysis energy saving project worth of 0,15 M€/year
- Awarded six sigma black belt certifications, youngest by experience to achieve it

Mumbai, India

Aug 2016 – Aug 2019

#### Centre for System Design Lab, NITK

*Bachelor's thesis work*

- Performed modeling and experimental studies on the dynamics of a bolted joint structure for SHM
- Assessed modal parameters by varying pretension of the bolted joint
- Co-authored a [chapter](#) in a Springer's book publication
- Trained in LabVIEW and NI Data acquisition systems, ANSYS and Hypermesh

Mangalore, India

June 2014 – May 2015

### INTERESTS

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- Practicing yoga, Cooking, volunteering in social welfare activities, acting and drama