ISHAN SHARMA

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PROFILE SUMMARY

Current student enrolled in Clemson University Master of Science Program with hands-on experience gained through a student-centric, growth-oriented internship. Recognized for possessing a strong passion for continuing education initiatives and working with future technology and engineering leaders to drive personal and professional development. Adaptable Mechanical Engineering major eager to join an innovative organization for an internship position. Solid command of technologies, tools and best practices in designing mechanical equipment using CATIA V5, SolidWorks and engineering drawings. Able to design and fabricate tooling and mechanical test fixtures. Demonstrated team collaboration skills. Work closely with team members to achieve engineering goals.

SKILLS

- Mechanical Design
- Advanced Strength of Materials
- Finite Element Method(FEM)
- Computer Aided Engineering(CAE)
- Design Validation & Verification
- Part Modelling
- Surface Modelling
- Linear Buckling Analysis
- Fluid -Structure Interaction
- Linear Flow Analysis (Internal & External)
- Thermal Structural Interaction

- Topology Optimization
- Goal Driven Optimization(GDO)
- Fatigue Analysis
- ANSYS R19
- Hypermesh R19
- Solidworks,
- CATIA V4/V5
- Python
- MATLAB/Octave
- Machine Learning
- Deep Learning
- ANN
- Design Thinking

- Reverse Engineering
- Product Development
- Analytical Thinking
- Highly Proactive
- Self-motivated
- Complex Problem Solving
- Excellent Work Ethic
- Organization
- Strong Communication and Interpersonal Skills
- Effective Time Management
- Teamwork/Independent

RESEARCH EXPERIENCE

Linux World Informatics Private Limited
Research Intern| ML & Big-Data Integrated Product-Development |December'18 – July'19
- Leading a project related to the power sector and Supply Chain Industry and collaborate with the fellow group of interns.
- Responsible for developing an RTM analysis to address the requirements of the given product.
- Effectively lead the conceptualization & concept evaluation stage, I was also responsible for preparing the decision matrix to select the given concept effectively.

Fiat Chrysler Automobiles (FCA) Engineering India
Research Intern | Engine Systems (Product Development Division) | May`17 – August`17
- Under the product development division, I was responsible for subsisting my supervisor for the development of various components on the aspects of 'Design for Manufacturing.'
- Contributed towards structural design analysis and optimization of various sub-components of the Engine Systems.
- Derived design variables and constraints to be benchmarked in the given design of WCAC for the forthcoming APAC models.

Aerosphere Private Limited
Research Intern |CAE (Structural Design) Division | April`16 – April`17
- Carried out structural design trade-off studies and derive design analogies for various assignments in references.
- In the project, I was responsible for carrying out a structural design analysis of the steam turbine blade using reverse engineering principles under the fluid-structural interaction scheme. Under the analysis scheme, fatigue character was analyzed.

PROJECTS

Comparative Structural design analysis of different types of fuselage geometry
- Under the project, different types of fuselage constructions like – monocoques and semi-monocoque types of fuselage-construction were analyzed using FEA based on different structural properties for a narrow-body aircraft.

Structural Design analysis and topology optimization of the nose landing gear of an aircraft.
- Under the given project, a nose landing gear was designed for commercial passenger aircraft. The design was then further exposed to the stipulated design loads and analyzed under the FEA scheme.

Preliminary system design of material pre-processing subsystem for 'Lunar Regolith Processing Module'

- Under the given group semester project, my team was responsible for developing a preliminary system design for the material pre-processing subsystem for the Lunar Regolith Extraction module.

RESEARCH AND PUBLICATION

- **Bindal H. , Sharma I. , Rastogi P. (2018). Reduction and optimization of stress at the boundary of a fixed beam by using simple support. International Journal of Aerospace and Mechanical Engineering, 5(2).**
- **Bindal H. , Sharma I. , Rastogi P. (2018). Design and structural analysis of an off-road vehicle. International Research Journal of Engineering & Technology, 5(3).**

EDUCATION

MASTER OF SCIENCE(MS) – Mechanical Engineering   **August 2019 – August 2021**
Clemson University 3.66/4

BACHELOR OF TECHNOLOGY – Mechanical Engineering   **July 2014 – November 2018**
University of Petroleum and Energy Studies (UPES)

CERTIFICATION

- **Certified Student Leader Program (2019-20) by Clemson University**
- **Dassault Certified Solidworks Associate (Mechanical Design)**
- **RedHat Certified System Administrator (RHCSA)**
- **RedHat Certification of Excellence (RHCoE(Ansible)**