Akshameet Kumawat

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PROFILE

Driven and Self-motivated aerospace engineering student (B.Tech.), and therefore effective at completing tasks with minimal supervision. Also, an ambitious, enthusiastic, driven graduate aiming to help achieve company goals and take on more responsibility.

EDUCATION

SRM Institute of Science and Technology, Chennai Bachelor of Technology, Aerospace Engineering Cumulative GPA of 8.98/10.00 (till 6th semester)

Lokmanya Tilak Higher Secondary School, Ujjain

Central Board of Secondary Education Exam (12th Grade and 10th Grade) 12th - 7.8 CGPA 10th - 7.2 CGPA

PROFESSIONAL HISTORY

Defense Research and Development Organization, Hyderabad

Summer Intern

I conducted a study on "various types of filament winding" under the Advanced Systems Laboratory at the DRDO, Hyderabad, while working in implant training for the Ministry of Defense.

Bangalore Aircraft Industries, Bangalore

Structural Analyst

Designed and analysed an aircraft wing spar. Also performed structural analysis using the finite element method and Nastran-Patran software, and compared the results by performing strength of material calculations.

Elite Techno Group

CFD analyst

CFD simulation with Ansys Fluent to examine the pressure difference in a pipe flow for different fluids, the effects of RPM change on the outlet pressure, and the calculation of lift and drag for an F1 car's rear wing component.

Student Copter Research Organization, Chennai

Design and Fabrication member

Analyzed the operation and dynamics of UAVs, worked on multiple multicopter using SOLIDWORKS and ANSYS, researched about composite materials and 3d prints (ABS) for fabrication and currently working on a Quadcopter with an efficient payload drop mechanism.

Team SPARS (Under SAE India), Chennai

CAD Designer

SOLIDWORKS was used to research and design a 3-meter wingspan tapered wing RC plane, as well as

[June 2022-July 2022]

[June 2019-May 2023]

[March 2022-April 2022]

[Feb 2021-Present]

[May 2019]

[May 2021-June 2021]

[Jan 2021]

fuselage mounting techniques.

Worked on designing a 1-meter wingspan of the modified SELIG airfoil (using XFLR5 and SOLIDWORKS) to increase lift by up to 15% for the given requirement of carrying the maximum payload.

ASME SRM Student Section, Chennai

[Aug 2020]

Design and Fabrication member

STUDENT DESIGN COMPETITION (SDC 2021)-

Led a project aiming to design a vehicle powered by solar and wind energy and requiring only one AAA battery.

Worked on and designed a three-wheel mechanism for the vehicle and placement of components such as solar panels, dynamos, voltage boosters, etc.

Structural analysis was completed using ANSYS and SOLIDWORKS.

AEROMANIA-

Using FUSION-360, I designed a 1-meter-wingspan RC plane with a flat bottom Clark-Y airfoil and ran simulations on XFLR5.

Individuals were assigned to work on the design, assembly, and fabrication of parts.

EVENT SECTION-

As a team representative, I worked with the ASME SRM student section's Non-Technical section. I organized and ran several webinars and online meetings during the work period.

HONOURS & AWARDS

- Secured 2nd rank in Aerospace Department CAD designing competition during Space Week 2022.
- Second place in the national drone design competition Phase-1 held by SAE INDIA in 2022.
- Participated in Smart India Hackathon 2022, with the conceptual design of a Quadcopter.
- Participated in AAKRUTI 2021 conducted by Dassault Systems.

CERTIFICATIONS

Certified SOLIDWORKS Professional as well as Associate (Dassault System)

Digital manufacturing with FUSION-360 (Autodesk), April 2020 3D model creation with fusion 360 (Autodesk), May 2020 Introduction to programming with Matlab (Coursera), May 2020 Model creation with FUSION-360 (Autodesk), June 2020 Kinematics:Describing the motion of Spacecraft(Coursera), June2020

SKILLS

Technical Skills

CATIA | AUTOCAD | SOLIDWORKS | ANSYS | Nastran | Patran | XFLR5 | STAR-CCM+ | Fusion- 360| MATLAB

Languages English, Hindi