ANIL HOSAKOTE

HPKANIL@GMAIL.COM
+91-9886091235

Profile

- Lead Engineer with 15 years of experience in the Aero Engines and Aero Structures, including 2+ years of expertise in Automobile domain. Profound industry experience in leading and executing structural analysis of aero components and their subsystems to help with product design and development. My experience spans various areas, and I have effectively planned and executed multiple projects.
- Proficient to execute the static analysis, dynamic analysis, buckling analysis and lifing calculations.
- Responsible for stress justification for manufacturing deviations from design requirements caused by errors in delivery, production, assembly, testing, or qualification.
- Over 2 years of experience as an automobile simulation engineer in the CAE Powertrain NVH domain.
- Responsible for reviewing FEMs, load reports, DDIS (Design Definition Problem Statements) for new design concepts, and in-service design problems for various programs and certification/qualification.
- Worked as onsite coordinator to support the offshore team to meet customer needs and schedules.

Key Competencies & Skills

Pre-processing	Solver	Post-Processing
Hypermesh, Simlab, Patran, FEMAP, Ansys, Teamcenter, CAD, NX	Optistruct, Nastran, Hand calculation methods.	Hyperview, Hypergraph, MS-office.

Work Experience

Dates	Organization	Designation
05/2010- Till date	**TATA Consultancy Services, Bangalore -INDIA**	Associate Consultant
10/2008- 04/2010	BAeHAL Software Ltd, Bangalore-INDIA	Stress Engineer
09/2007- 09/2008	National Aerospace Laboratories-Bangalore-INDIA	Project Graduate Trainee

Education

Degree/Course and Date	Institute	Major and Specialization
Master of Technology 2011-2013	Visvesvaraya Technological University-MVJCE	Aeronautical Engineering
Bachelor of Engineering 2004-2007	Visvesvaraya Technological University-PESCE	Mechanical Engineering
Diploma in Mechanical Engineering, 2001-2004	Department of Technical Education-SPT	Mechanical Engineering

Key Assignments

Project -1	**Trent 1000–TEN, Trent-700 Core and Fan Casing External Components Stress Analysis.**
Customer	**Rolls Royce, DERBY**
Description	Finite element model creation of Aero engine External pipes and brackets to perform Static, Dynamic and Fatigue analysis and to validate test results. • Technical lead in supporting stress substantiations for the overall structural integrity of Rolls-Royce engine external dressings. • Performed modal analysis, Linear static analysis, frequency response analysis and linear transient response analysis of the Engine externals dressings • Lifing calculation of the Engine externals dressing in engine operating conditions [HCF RF and LCF RF] • FBO and Post FBO Windmilling loads assessment of the Engine externals dressing. • Responsible for reviews of FEM, stress reports, DDISs (Design Definition Issue Statements) of new design concepts and In-service design problems across various Rolls-Royce engines. • Project planning, estimation, execution, resource planning and delivery of the stress packages to the clients/customers. • Worked for Trent 1000-TEN and Trent 7000 FBO-Windmill failed engine and operating engine Level-2 [L2] stress reports. • Recommendations provided for Trent XWB 84K IP8 Air pipe failure based on the root cause analysis assessment. • Onsite Stress coordinator of RR Engine External dressings in Derby for one year.

Project -2	**Gasoline Engine, and Diesel Engine unit Programs**
Customer	**General Motors, North America**
Description	• Technical lead in supporting stress substantiations for the overall structural integrity of General Motor's engine components. • Performing modal analysis, Static and Dynamic analysis of the Engine components against Engine loads for WOT and part- throttle RPM. • Performing the Lifing calculation by using the goodman diagram and generating the waterfall plots to extract the critical engine orders and frequencies. • Recommended design suggestions based on the engineering judgment, topology, and topography optimization; variation/sensitivity study done by modifying the design input parameters. • Performing Noise (Pseudo Sound Power) analysis for the complete engine using WOT and Part-throttle loads to extract the overall sound power level for engine and its components. • Generated the automation checklist tool to validate the results rigorously

Project -3	**Customer Support Engineering activities**
Customer	**Pilatus, Switzerland**
Description	**Aircraft Structural Substantiation:** Working on structural substantiation of trainer aircrafts such as PC7, PC-9 and PC-21. Repair or structural substantiation of the primary and secondary aircraft components developing repair schemes for corrosion, cracks and other form of damages. **Repair Substantiation** Repair justification via static and fatigue assessment structural issues of existing fleet of trainer aircrafts using inputs from existing Engineering reports. **Repair Memo** Develop Repair memo, which includes repair procedure and technical adaptation embodiment instructions in accordance with SRM (Structural Repair Manual) and AMM (Aircraft Maintenance Manual).

Project -4	**Stress Analysis for Airbus-350 Wing Upper Cover**
Customer	**Ferchau, Germany**
Description	**Composite Repair Analysis:** The aim of the study is to analyze the reparability of the wing upper cover. The optimum repair solutions are found out by varying the different patch layup ply. Critical load case is obtained from DGFEM (Detailed Global Finite Element Model) model at required location. Calculating the bolt reserve factors for repair patches that are bolted to the structure by using ISAMI- composite bolted joint tool module. The reparability of the cover and optimum repair solution (patch layup, fastener size & type) is iteratively investigated for complete WUC. (307 Stringer repair location and 280 Skin repair locations) **Buckling Analysis:** Buckling analysis was performed for WUC (Wing Upper Cover) models provided by Airbus. The analysis performed for critical loads cases and buckling fishtails are created for low RF at each panel locations to analyze results and load cases. Delivered the Stress dossier for Airbus with complete result summary and conclusions. **Stringer disbond analysis for WUC DGFEM model** A350-900 WUC consists of 33 ribs and 18 stringers. Buckling analysis for WUC DGFEM is performed by disbonding one stringer within a bay to obtain the RF's. Similarly, around 250 regions are analyzed by disbonding a stringer in a bay and buckling RFs are obtained which is tabulated as fishtail. Stringer disbond dossier for certification is delivered.