

Job Title	Structural Analysis Engineer Sr.
Department	Engineering
Requisition Number	ENG-SA2



**Job Summary:**

Analyze complex mechanical and structural designs supporting the aircraft, and heavy manufacturing industries. Provide technical direction to apprentice engineers. Perform mechanical and structural analysis using classical methods and FEM tools. Perform static, fatigue and dynamic analysis. Develop work statements, formal analysis reports, design criteria documents and standards, technical policies, certification plans, test procedures, test plans, work hours estimates, and performance schedules to meet client requirements. Interface with clients and client's representatives on behalf of KTM SOLUTIONS, INC. Author, review and approve formal analysis and reports. Provide technical direction to apprentice engineers. Communicate orally and in writing with clients, peers, and subordinates. Prepare and present technical presentations and papers.

**Impact:**

- Frequent contacts with industry peers, clients, client representatives, and decision makers regarding technical performance and progress, contractual performance and issues, and follow-on work requirements.
- Instruct and guide others in technical decision making and analysis. Conducts technical briefings and meetings for both internal and external consumption.

**Autonomy:**

- Works independently, requiring infrequent supervision.
- Provides guidance to junior engineers and is instrumental in the design and development of company technical policy and organizational goals.

**Typical Minimum Qualifications:**

- Bachelor of Science degree in Mechanical, Aeronautical, or Civil Engineering from an ABET accredited university or college.
- Ten (10) years design or structural analysis experience in the aircraft or heavy manufacturing industry.
- Five (5) years experience with NASTRAN/FEMAP, (ABAQUS, ANSYS or NASTRAN/PATRAN).
- Five (5) years experience with specialty structural analysis (fatigue, dynamic, seismic analysis).
- Familiarity with ASME lifting standards (ASME B30.20 and BTH-1).
- Proven leadership and project planning skills.
- Professional engineering registration in South Carolina.
- Strong written and verbal communication skills, able to express ideas.
- Interpersonal skills – Humble and heart of a teacher.
- Innovative and creative, able to propose alternative solutions.

**Preferred Qualifications:**

- Professional engineering registration in South Carolina (or another state registration).
- Masters of Science degree in Mechanical, Aeronautical, or Civil Engineering from an ABET accredited university or college.
- Five (5) years of composite material analysis.
- Proficiency in standard MS Office suite.
- Open minded – lifelong learner.
- Ability to work with diverse engineering disciplines and cross functional teams.

**Salary:**

Total compensation will include a base salary and bonus opportunity; base salary will be determined commensurate with experience. All full time employees are eligible to participate in company benefits plan (group medical, retirement, and life insurance).

**Disclaimer**

The above statements are intended to describe the general nature and level of work being performed by people assigned to this classification. They are not to be construed as an exhaustive list of all responsibilities, duties, and skills required of personnel so classified. All personnel may be required to perform duties outside of their normal responsibilities from time to time, as needed.

**HOW TO APPLY** – Please complete an application, which can be downloaded from the KTM Solutions website: [www.ktmsolutions.com/careers](http://www.ktmsolutions.com/careers). Send with a copy of your resume and completed application to [careers@ktmsolutions.com](mailto:careers@ktmsolutions.com). Subject of your e-mail response should include the requisition number (see job description header)

ALL CANDIDATES MUST POSSESS AUTHORIZATION TO WORK LEGALLY IN THE UNITED STATES WITHOUT COMPANY SPONSORSHIP.

## **THE KTM SOLUTIONS EMPLOYMENT EXPERIENCE - Exciting Challenges, Rewarding Careers**

**Creative Freedom:** There is no substitute for passion and creativity. We strive to foster these traits by allowing our employees a great deal of creative freedom. We believe that creative freedom allows engineers to push the so-called limits and create the finest and most inventive designs they are capable of. You have the freedom to think outside the box and truly be an innovator.

**An Environment of Respect and Trust:** We understand true professionalism to mean mutual respect, responsibility, and trust in the workplace. These traits are foundational to our work environment.

**Flexibility:** Everyone works differently. We understand that people have different ways of fostering productivity. Because of this, we try to be flexible and let our employees choose their hours and create for themselves a work environment that is conducive to creativity and technical excellence.

**Diverse Challenges:** Our unique position in the engineering world means that our employees have the opportunity to work on a wide variety of technical design projects. Our service offerings give you the opportunity to work through diverse tasks and develop new skills every day. From airplanes and automotive parts to conveyors and automated machines, the ever-new challenges make every day fresh and exciting. You never know what you might encounter.

**Time Spent Doing What You Love:** As a company created by an engineer for engineers, we understand that experimentation, design, and creation lie at the heart of engineering. True passion and innovation should not be hindered by hoops, ladders, and whistles that must be jumped through, climbed, and yielded to. No bureaucracy. We enable you to spend your time doing what an engineer is meant to do: creating and innovating.

### **THE COMPANY:**

KTM Solutions serves aero structures companies and manufacturers that produce large parts and/or complex equipment. We provide specialized engineering services as well as custom tooling solutions. Both of these are essential to trouble-free manufacturing. In addition, our professionally engineered tools reduce the risk of injury for manufacturing employees. KTM's **On Demand Engineering** service provides immediate professional engineering talent to address your engineering needs. Our aerospace engineers understand the aircraft structural design, analysis, repair, and modification business. KTM will also design and deliver custom tools through our **Turnkey Mechanical Systems** service.

CATIAv5, SOLIDWORKS, NASTRAN/FEMAP, NASGRO services are available. Our services are not right for everyone; however, companies that benefit the most from KTM Solutions services are those that are:

- Frustrated with the long lead times, repeated learning curves, and inconsistent quality of contract/temporary staffing,
- Unsure how to navigate the waters of new product development and need highly skilled/specialized individuals required for a short time,
- Concerned for the safety of the tools they use to manufacture and move product through their assembly process.

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