

HELICOPTER EXECUTIVE VICE PRESIDENCY ROTOR DESIGN GROUP

We are seeking applicants for Rotor Design positions. Please check details and send your CV

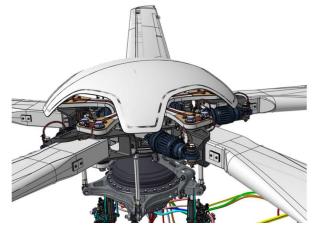
Murat GÜNEL – Rotor Design Manager (mgunel@tai.com.tr)







Rotor System **Design Engineer**



Job Description

The personnel will be part of a team of engineers responsible with the design, development, and verification activities of rotor system for helicopter development and modernization programs.

Job Duties and Responsibilities

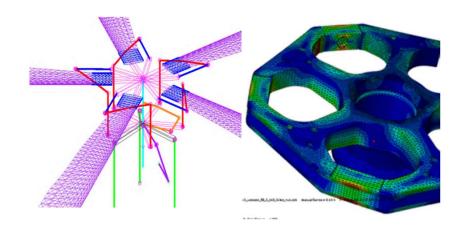
- Creating 3D conceptual Main and Tail Rotor Systems.
- Perform detail design activities of Main and Tail rotor system parts, components and assemblies (including rotor hubs, cones, fixed and rotating swashplates and controls components, bushings, elastomeric and conventional bearings, dampers and rod ends, etc.) to meet project requirements.
- Create technical specifications, design components and assemblies in 3D modeling tools (CATIA V5/NX etc.).
- Create 3D Model Based Definition data (if needed 2D drawings) with appropriate GD&T techniques, and release engineering design data in PLM system.
- Perform clash/clearance and kinematic analyses of rotor system parts.
- Provide technical and engineering support to manufacturing, purchasing, quality assurance, and testing departments through design and manufacturing phases to ground and flight tests phases.
- If needed, develop technical specifications for purchased equipments, interface with 3rd party suppliers and facilitate integration of the equipment into the system design.
- Participate in qualification and/or certification activities (system and/or equipment level) and prepare related documentation.
- Interface with multiple functional disciplines for design input, requirements and potential solutions to problems.
- Provide input to project schedules, timelines and resource requirements for completion of assigned design work.

Job Skills & Qualifications

- B.Sc. in Mechanical or Aeronautical Engineering.
- Knowledge of mechanical design principles.
- Knowledge of materials and manufacturing methods.
- Knowledge of ASME 14.5 Geometric Dimensioning and Tolerancing (GD&T).
- 3D CAD design experience (CATIA V5/NX etc.).
- Knowledge of Product Lifecycle Management (PLM) software.
- Knowledge of MS Office Programs (Word, Excel, PowerPoint etc.).
- Proficiency in written and verbal English
- Good communication (oral, written, presentation) skills

- Experience with airworthiness regulations (FAA/EASA) and military/aerospace design standards
- Experience with helicopter rotor system details and assemblies design or similar mechanical components design.

Rotor System Analysis Engineer



Job Description

The personnel will be part of a team of engineers responsible with the design, development, and verification activities of rotor system for helicopter development and modernization programs.

Job Duties and Responsibilities

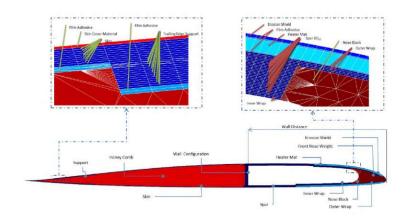
- Develop structural analysis models using Finite Element analysis / analytical tools and perform stress and fatigue analysis calculations to meet project requirements
- Develop flexible multi-body dynamics models for evaluation of dynamic response and internal loads calculations
- Develop software tools (with PYTHON, MATLAB, EXCEL, etc.) to support analytical calculations and design optimization.
- Prepare test requests, participate in system test activities (laboratory/ground etc.), and evaluate test data
- Support flight test campaigns with engineering evaluation of flight test data.
- Participate in qualification and/or certification activities (system and/or equipment level) and prepare related documentation
- Interface with multiple functional disciplines for design, requirements and potential solutions to problems
- Provide input to project schedules, timelines and resource requirements for completion of assigned work

Job Skills & Qualifications

- B.Sc. in Mechanical or Aeronautical Engineering
- Understanding of the fundamentals of structural dynamics, solid mechanics and multi-body dynamics
- Should demonstrate initiative and flexibility
- Good communication (oral, written, presentation) skills
- · Proficiency in written and verbal English

- M.Sc. in Mechanical or Aeronautical Engineering
- Working knowledge of MATLAB and PYTHON
- Experience in Finite Element Analysis Tools (ABAQUS, NASTRAN etc.)
- Experience in 3D CAD design (CATIA V5/NX etc.)
- Experience with Teamcenter Engineering
- Experience in Aerospace product design process

Rotor Blade Analysis Engineer



Job Description

The personnel will be part of a team of engineers responsible with the structural sizing and qualification activities of helicopter rotor blades.

Job Duties and Responsibilities

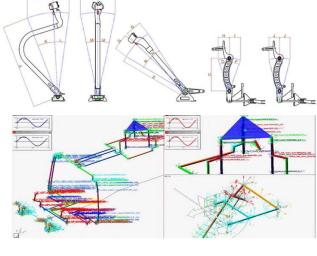
- Conduct static, fatigue and damage tolerance analysis for rotor blade structures.
- Prepare analysis reports, technical notes and presentations including interpretation of the analysis and test results.
- Prepare test plans and test requests, actively participate in test activities (laboratory/ground/flight), and evaluate test data.
- Develop new methodologies and strategies to be employed in blade structural analysis activities.
- Provide engineering support to manufacturing, quality assurance, and testing departments.
- Participate in qualification and/or certification activities (system and/or equipment level) and prepare related documentation.
- Interface with multiple functional disciplines for design input, requirements and potential solutions to problems.
- Provide input to project schedules, timelines and resource requirements for completion of assigned sizing activities.

Job Skills & Qualifications

- B.Sc. in Mechanical or Aeronautical Engineering
- Solid knowledge in static strength analysis by means of analytical methods and finite element methods
- Knowledge and experience in FE analysis. ABAQUS preferably.
- Knowledge in fatigue/fracture mechanics and damage tolerance evaluations
- Knowledge in mechanics of composite materials.
- Possess written and oral communication skills
- Assume the responsibility for his/her tasks
- Organize his/her own work in alignment with priorities communicated by manager
- · Proficiency in written and verbal English

- Knowledge in composite manufacturing and quality operations.
- Knowledge in structural dynamics and helicopter theory
- 3D CAD design experience (CATIA V5/NX etc.)
- Knowledge of mechanical design principles including Geometric Dimensioning and Tolerancing (GD&T)
- Experience with airworthiness regulations (FAA/EASA) and military/aerospace design standards

Rotor Mechanical Flight Control System Design Engineer



Job Description

The personnel will be part of a team of engineers responsible with the design, development, and verification activities of mechanical flight control systems for helicopter development and modernization programs.

Job Duties and Responsibilities

- Design mechanism parts, components and assemblies to meet project requirements
- Create CAD models of parts and assemblies, apply Geometric Dimensioning and Tolerancing (GD&T) and specify annotations using Model-Based Definition (MBD) data sets, release design data in PLM system
- Perform clash/clearance, kinematic and dynamic analyses of control mechanisms
- Provide technical and engineering support to manufacturing, purchasing, quality assurance, and testing departments
- If needed, develop technical specifications for purchased equipments, interface with 3rd party suppliers and facilitate integration of the equipment into the system design
- Develop and build prototypes and perform tests to evaluate design concept
- Prepare test requests, participate in system test activities (laboratory/ground etc.), and evaluate test data
- Participate in qualification and/or certification activities (system and/or equipment level) and prepare related documentation
- Interface with multiple functional disciplines for design input, requirements and potential solutions to problems
- Provide input to project schedules, timelines and resource requirements for completion of assigned design work

Job Skills & Qualifications

- B.Sc. in Mechanical, Mechatronics or Aeronautical Engineering
- Knowledge of materials and manufacturing methods
- 3D CAD design experience (CATIA V5/NX etc.)
- Multibody Dynamics analysis experience (MSC ADAMS/Simcenter 3D Motion etc.)
- · Proficiency in written and verbal English

- Knowledge of mechanical design principles including Geometric Dimensioning and Tolerancing (GD&T)
- Experience with Teamcenter Engineering
- Experience with airworthiness regulations (FAA/EASA) and military/aerospace design standards
- Experience with mechanism design and actuation systems (electromechanical, electrohydraulic etc.)