	Senior Analysis Engineer	Ref: HR-F-21
		Date: Oct 2022
		Revision: 0
		Page 1 of 3

Job Title:	Senior Analysis Engineer
Department:	Engineering
Reporting to:	Chief Engineer
Date:	August 2023

MAIN PURPOSE OF ROLE

To have ownership and responsibility for system, component, and assembly analysis. To support Design Engineers in creating concepts and developing design solutions utilising analysis techniques. Development of designs within the analysis environment. Supporting growth of the Analysis Department within JRM.


Key Responsibilities & Accountabilities

- Identify targets and requirements for components and systems including load cases.
- Support concept creation: Ideas, benchmarking, initial feasibility calculations and/or analysis
- Perform first principal analysis studies and calculations to challenge and size potential solutions
- Work closely with design engineers to deliver fully engineered solutions including structural, thermal and fatigue life, welded, and bolted joint analysis.
- Compile analysis reports
- The ability to guide and support more junior members of the team.
- The ability to lead the delivery of projects which have a high element of analysis content.
- To adhere to deadlines, and operational budgets.
- Lead the preparation and production of design presentations relating to analysis.
- Always maintain JRM's engineering standards.
- Always maintain best working practices line with JRM process and procedures and health and safety policy guidelines.
- Lead and support the resolution of issues and initiating corrective actions on a timely basis.
- Comply with all departmental H&S requirements.
- Comply, where appropriate with management, and environmental, systems, such as ISO 9001 & ISO 14001.
- Any other reasonable duties which may be required by management from time to time
- The intention is that you will be trained to use Altair MotionSolve if not already a user.

PERSONNEL SPECIFICATION

Qualifications and Experience

- At least three year's Industry experience, using tools such as Nastran/Patran, Hyperworks, Radios, OptiStruct or similar.
- Good understanding of structures, material properties and applications. Developing static and transient load models including modal analysis techniques.
- Generation of load cases from first principals, running detailed stress and fatigue analysis models.
- Optimisation of systems for mass and strength utilising optimisation tools such as OptiStruct
- Analytical approach to problem solving, experienced user in hand calculation techniques to validate FE models.
- Engineering degree or equivalent qualification

	Senior Analysis Engineer	Ref: HR-F-21
		Date: Oct 2022
		Revision: 0
		Page 2 of 3

- Have engineering systems level experience.
- Have experience in thermal analysis, including 1D.
- Have experience in fatigue and durability, road load data processing and validation.
- Experience using CAD, CATIA is an advantage.
- Experience of composite materials, particularly carbon fibre, is an advantage.
- Experience of cast and forged materials is an advantage.
- Experience of using quality management tools and systems.

Special aptitudes

- Confidential in all matters
- Professional approach, coupled with strong interpersonal skills.
- Excellent planning, organisational and time management skills
- Excellent verbal, written communication and presentation skills
- Strong IT skills
- Awareness of small business needs
- Ability to work on own initiative
- Ability to work in, and adapt to a rapidly changing environment
- Ability to work co-operatively with others to complete tasks and implement process improvements
- Determination to improve, grow and contribute to the departments success
- A creative thinker not afraid to suggest new ways of doing things
- Knowledge of Microsoft packages

Disposition

- Flexible and cooperative attitude
- An assertive but calm demeanour
- Self-motivated
- Ability to listen to customer needs and respond accordingly

Requirements

- Good timekeeping and attendance record
- Willing to be flexible with hours to ensure tasks are completed on time
- Neat and tidy appearance
- Completer/Finisher

Any JRM employee may be asked on occasion to perform additional or unrelated duties, after appropriate training has been given, if required.

Summary Terms & Conditions

- **Pension** - Upon joining the Company, you will be automatically enrolled, with contributions starting after successful completion of the probationary period.
- **Leave entitlement** - 25 days per year plus statutory holidays (compulsory shutdown of three days at Christmas).



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Ref: HR-F-21

Date: Oct 2022

Revision: 0

Page 3 of 3

- **Notice period** - There will be an initial three-month probationary period, during which notice will be one week on either side. On successful completion of the probationary period notice will be one month.

This job description is neither exhaustive nor exclusive and may be reviewed in the future depending upon operational requirements and staffing levels.