

Reference: SPA003
Job Title: Senior/Principal Mechanical Engineer
Company: ESR Technology
Location: Birchwood Park, Warrington (near Manchester)
Employment Category: Full Time (37.5 hours per week)
Salary/Benefits: Competitive salary, with excellent benefits including 25 days annual leave plus statutory holidays, additional leave purchase, up to 8% matched pension contribution, health care, life assurance and more

- Are you an experienced mechanical, aerospace engineer with space, aerospace or vacuum industry experience looking for your next challenge?
- Do you have an interest in design and development of reliable hardware for demanding environments?
- Do you want to work on a range of challenging problems and on collaborative development projects?
- Do you want to build a varied, challenging and satisfying career within a small and dynamic company?
- Do you expect to be recognised for your performance?

The Company

ESR Technology is a leading Science and Engineering services company providing independent and specialist technical consultancy, products and services to the Oil & Gas, Space & vacuum, Industrial and Transport markets.

Operating primarily within our space and vacuum team, but with the flexibility to support mechanical engineering activities in other sectors (e.g. aerospace) on occasions, we are seeking an experienced, highly motivated and technically capable senior engineer to lead challenging engineering consultancy, design and development projects for international clients producing equipment which operates in space, vacuum and other harsh environments.

The Job

We have a vacancy for a senior/principal mechanical engineer capable of providing specialist consultancy/mechanical design analysis, research and development support to clients in both space and terrestrial markets.

The role involves leadership of all aspects of multiple mechanism and tribology projects from identification of opportunities and where necessary funding sources, through preparation of winning proposals to execution of the work in-line with cost, schedule and quality requirements.

Working mainly with bespoke, precision mechanical systems, the main purpose of the role is to provide specialist engineering consultancy and research/development support to external clients involved in space and vacuum mechanism development. In addition, the job-holder will be expected to provide conceptual/architectural design and development leadership for in-house devices, new products and test facility developments.

This job requires a sound understanding and capability in the analysis of precision mechanisms, including analysis of machine elements (e.g. rolling element bearings or gears) and of the mechanisms/sub-assemblies that employ them (e.g. reviewing motorisation margins, thermal strain effects, static and dynamic loading structural margins due to launch/externally applied loads etc). The job holder should be able to provide design leadership, contribute to and lead analysis and review activities and manage consultancy, design, development, test or manufacture projects for both deliverable hardware and in-house test fixtures and facilities. In addition to familiarity and capability with solid modelling and analysis tools (e.g. SolidWorks Simulation, Nastran, ABAQUS, ANSYS), the role also requires a sound understanding of tribological principles and hence relevant background expertise or study in the field would be very desirable.

Our clients include international agencies and large aerospace and research organisations and hence we need confident, capable staff who can take responsibility for their work and who have excellent written/oral communications and interpersonal skills.

Projects vary in size from short, rapid response support activities to longer term multi-year projects. The ability to plan work and take responsibility for its timely completion demonstrating compliance with all client requirements is essential and this will require the effective management and planning of all activities, leadership of the project team and management of resources and suppliers.

You will be located at our modern offices in Warrington, with a mixture of desk-based and laboratory/cleanroom work. Some travel is required to visit clients, suppliers and other project partners both within the UK and internationally. The role may require training in the use of our specific design and structural analysis software tools.

Requirements

The successful candidate will need to be experienced, self-motivated, able to prioritise work and learn quickly whilst working alongside other experienced colleagues. Strong candidates for this role will be able to demonstrate some or all of the following:

- A track record in the design/development of mechanisms for space/vacuum or aerospace applications
- Experience in identification, development and winning of new business including proposal preparation.
- A dedicated and creative approach to problem-solving and excellent analytical skills
- First class communications (both written and verbal).
- Ability to provide effective technical, project and team leadership
- A sound understanding of the design/development of tribological systems - for example mechanisms using ball bearings or spur gears.
- An established capability in the use of design and structural analysis software tools.

Although not essential the following would be of benefit:

- Experience of moving mechanical/mechatronic systems and motion control
- An understanding of advanced materials and component production processes
- Experience working with ESA, spacecraft primes or spacecraft equipment manufacturers.

Qualifications

A first class or 2.1 degree in Mechanical or Aerospace Engineering, or a related discipline.
Chartered Engineer (or working towards it)

Travel Requirement

Occasional UK and International travel

Right To Work

Prospective candidates for this role should be aware that any offer of employment in connection with this vacancy is conditional upon, and subject to the candidate obtaining, and at all times continuing to have, the right to live and work in the United Kingdom.

Application

If you are passionate about delivering outstanding value to our clients and our business, then this could be the role for you.

Write with full CV, highlighting what you can contribute in this diverse and interesting role to careers@esrtechnology.com