

**Reference:** NCT005  
**Job Title:** Senior or Principal Engineer  
**Company:** ESR Technology  
**Location:** Warrington (near Manchester)  
**Employment Category:** Full Time (37.5 hours per week)  
**Salary/Benefits:** Competitive salary (dependent on experience), 25 days annual leave plus statutory holidays, additional leave purchase, up to 8% matched pension contribution, health care, life assurance, partial hybrid working and more.

- Do you have expert mechanical engineering knowledge and application experience relevant to bearings, gears or other tribological components?
- Interested in component failure analysis, forensic engineering, tribology and materials?
- Are you suited to client facing consultancy and problem solving?
- Do you want to work autonomously on a wide range of industrial projects?
- Do you want a varied and satisfying career?
- Do you expect to be recognised for your performance?

## **The Company**

ESR Technology is a leading Engineering and Science services company working within the rail, energy, process plant, utilities, and space industries. We are seeking highly motivated technical leader to join a small consultancy team, working on challenging projects for industrial clients. We need a confident, technically capable person who can take project responsibilities in their stride, help us grow our business and develop robust client relationships.

## **The Job**

A vacancy for an experienced Senior or Principal Engineer has become available within our forensic engineering and tribology group (National Centre of Tribology (NCT)). We are looking for a specialist in Mechanical Engineering with considerable component level application knowledge, a track record in mechanical failure/root cause analysis of mechanical systems, and a sound understanding of materials, to work on a variety of industrial projects for clients based mainly in the UK although occasionally abroad. Our work involves finding robust solutions and providing reliable advice on problems of importance to our clients.

The job will require a detailed practical understanding of mechanical engineering, failure investigation and laboratory practices, working on forensic examination and component reliability/life extension projects.

Site visits, critical thinking, a forensic approach to problem solving and attention to detail are all necessary parts of the role.

Good communication skills are also essential. The candidate must be able to produce clear, concise written proposals, technical reports which meet client expectations and make formal presentations of project findings to technically informed clients, including up to technical director level. The candidate will also be business aware, able to work to controlled budgets and fixed time constraints and accountable for the delivery and performance of multiple parallel projects of various sizes for clients ranging from SME to multi-national companies.

The type of work requires someone with both theoretical and practical skills, willing on occasion to be hands-on and with client maintenance and engineering staff to investigate component assemblies as well as to lead dis-assembly/test and root cause investigations of components received in-house at our premises.

The role will also include supervision of Technicians within the NCT group.

The role offers the opportunity to rapidly become the 'expert' for one or more specialist areas and be recognised as such both within the company and in the wider industry sector.

## Requirements

The successful candidate will need to be highly professional, client focused, self-motivated, able to prioritise work and confident to apply their high-level technical knowledge and experience to familiar and unfamiliar investigations and circumstances alike.

Required background, skills and aptitudes:

### Strong technical skills

- Strong technical analysis and problem-solving skills (both theoretical and practical)
- An understanding of how engineering components, especially but not exclusively tribological components, function, degrade and ultimately fail (under normal and abnormal operating conditions).
- Knowledge of bearings, gears and other tribological component types, their correct use and failure modes.

### Project management and commercial awareness skills

- Able to identify, secure, undertake and manage technical consultancy work in mechanical and materials engineering.
- Job Management: Able to handle enquiries, prepare appropriately priced proposals and execute projects to completion achieving the expected margin.
- People Management: provides effective and adaptable leadership and coaching skills to get the best from project teams working on client projects.

### Client focus

- Excellent written and verbal communication of technical results for non-technical and technical clients.
- Responsibility for managing own workload and planning staff resources to meet client expectations.

Additionally, it would be beneficial (though not mandatory) if the candidate also has some elements of the following technical knowledge and/or experience:

- Experience or understanding of the techniques of root cause failure analysis and/or forensic engineering.
- Understanding of wear and the failure mechanisms of materials including processes such as fretting, ploughing, adhesive and other wear mechanisms, fatigue, corrosion, stress corrosion cracking (SCC), hydrogen embrittlement (HE), electrical and thermal degradation etc.

## Qualifications

- Bachelor's / Master's degree or PhD and professional experience.
- Membership of a professional body would be desirable.

## Travel

Occasional UK and International travel.

### **Experience**

A successful candidate is likely to have at least 5 years (post-graduate/post-doctorate) experience for the Senior role and more than 7 years relevant experience in a relevant technical area for the Principal role.

### **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](mailto:careers@esrtechnology.com)