



Job Title:	Principal Research Engineer Job Description
Department:	Engineering & Manufacturing

ROLE TITLE: Principal Research Engineer

Reports to: Engineering Capability Lead

Direct reports including contractors: None

Budget: None

Key relationships:

- Reports into, collaborates with and acts as a technical advisor/influencer to ECL
- Advises/ influences Head of Value Stream and CTO on technical strategy/ road-mapping
- Advises/influences Chief Engineers and Business Unit Directors
- Represents and advocates for NCC at technical forums
- Engages and collaborates with Academia and Industry

ROLE PURPOSE:

- To lead, review and establish technical engineering tasks in line with business requirements. You will take a strategic view and influence technical road-mapping activities.

MAIN ACTIVITIES:

Technical

- Revise and assess literature surveys to develop methods to meet varied complex novel technical requirements.
- You will appraise and revise proposals ensuring strategic alignment for short and long term roadmaps in collaboration with the ECL and Head of Value Stream.
- Integrate, advise and influence technical tasks; developing engineering outcomes which utilise state-of-the-art complex techniques. This may be across multiple-disciplines.
- You will provide technical specialist authority and guidance on projects and technical capability/strategy development.
- Revise, formulate and lead novel and innovative approaches to pioneer technical solutions, road-mapping and strategy. You will foster innovation in other and have technical autonomy in your specialist area. This level of innovation is revolutionary and may include establishing a new novel technical capability or process.
- Create and revise technical documents. Champion the capture and dissemination of technical information to internal and external customers and networks.
- Advocate the publishing of technical content. You will be an exemplar to others in technical report writing.

Customer Interaction

- Establish effective partnerships across boundaries both internally and externally. You will have broad technical networks nationally and/or internationally and be regarded as an expert in your specialist field.
- Represent the NCC in relevant technical forums and champion our technical strategy.
- Utilise your network of internal and external contacts to seek creative ways to develop and influence strategic collaborative partnerships e.g. bringing together teams of technical experts on the grounds they have similar technical interests and may be able to collaborate in an innovative way to enhance NCCs technical capabilities.



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This Job Description is not an exclusive or exhaustive list of all activities that an individual in this position may be asked to perform. You may be required to undertake other responsibilities or activities, as requested by your line manager, to support your team or wider NCC activities.

PERSON SPECIFICATION

Essential	Desirable
<u>Qualifications/Experience</u> <ul style="list-style-type: none">■ Masters in Engineering or other relevant degree/qualification■ Substantial engineering experience with composite materials■ Meets requirements of UK SPEC competencies for Chartered Engineer (or equivalent level)	<u>Qualifications/Experience</u> <ul style="list-style-type: none">■ PhD in specialist area■ Chartered Fellow with a professional institute (IMechE, IOM3)
<u>Behavioural Competencies</u> <ul style="list-style-type: none">■ Understands the importance of being a member of a professional technical community, learning from its knowledge and standards and able to actively contribute to its advancement Proven ability to synthesise technical solutions and strategies and develop substantiated conclusions■ Competently address engineering problems involving uncertainty, ambiguity, wide ranging and sometimes conflicting technical and non-technical factors■ Demonstrable ability to conceptualise alternative engineering approaches and evaluates potential outcomes against appropriate criteria to justify an optimal or novel engineering solution■ Demonstrates and champions the value of alternative and multi-disciplined viewpoints, academic advice and the importance of professional networking■ Knowledge of broader fields of science, engineering and technology from which new ideas and interfaces may be drawn and readily engages with professionals from these fields to exchange ideas and exploit collaboration opportunities.■ Proven ability to seek out novel developments in your engineering specialisation and apply specialist	<u>Behavioural Competencies</u> <ul style="list-style-type: none">■



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Essential	Desirable
<p>knowledge and systematic processes to evaluate and justify potential</p> <ul style="list-style-type: none">■ Able to prepare exemplary engineering documents and presentations pertinent to the audience■ Able to represent the NCCs short-long term strategic technical engineering position to the broader community■ Able to express complex/specialist technical information effectively and succinctly, issuing instruction, engaging in discussion, formulating arguments and justification, debating and negotiating – to technical and non-technical audiences and using appropriate media best suited to the audience and context■ Has professional gravitas, smart and confident as a technical ambassador of the NCC	