



<b>Job title</b>	Research Fellow (Title will be 'Research Associate' where an appointment is made before PhD is completed)	<b>Job family and level</b>	Research and Teaching Level 4 (Appointment will be Level 4 Career training grade where an appointment is made before PhD has been completed)
<b>School/ Department</b>	Composites Research Group / Faculty of Engineering	<b>Location</b>	Advanced Manufacturing Building – Jubilee Campus

## Purpose of role

To lead original research in the area of composites manufacturing within the Composites Research Group at the University of Nottingham. You will be funded by the Future Composites Manufacturing Research Hub, which is a national investment by the EPSRC engaging academics from across the UK with a broad range of industrial partners. The aim of this role is to conduct research to facilitate a step-change in the production of polymer matrix composites, to deliver components and structures for demanding applications within the aerospace, automotive and renewable energy sectors.

You will lead the delivery of specific research tasks and will work closely with other academics and a range of industrial partners from the UK composites sector. You will have the opportunity to use your initiative and creativity to identify areas for research, develop new methods and extend your research portfolio, with access to excellent composites manufacturing facilities. Experience of fibre reinforced composites would be beneficial, along with some experience of composites manufacturing processes for high-volume applications.

We are looking for an early-stage researcher wishing to take the first step towards an independent research career. You will be expected to plan and conduct work using appropriate approaches or methodologies and will be responsible for writing up your work for publication. We are therefore looking for an individual that has started to develop a credible research track record, contributing to major research projects in the field of composites manufacturing, with the ability to identify opportunities for new research proposals and collaborations within this field.

	<b>Main responsibilities</b> (Primary accountabilities and responsibilities expected to fulfil the role)	<b>Time per year</b>
1	<p><b>Research</b></p> <ul style="list-style-type: none"> <li>▪ To develop research objectives and proposals for own and/or collaborative research area.</li> <li>▪ To plan and manage own research activity and resolve problems, if required, in meeting own/team research objectives and deadlines in collaboration with others.</li> <li>▪ To analyse and illuminate data, interpret reports, evaluate and criticise texts and bring new insights to research area.</li> <li>▪ To plan and conduct research using recognised approaches, methodologies and techniques, to support activities within the Composites Research Group at the University of Nottingham</li> </ul>	60%
2	<b>Publications</b>	20%

	<ul style="list-style-type: none"> <li>▪ To write up research work for publication and/or contribute to the dissemination at national/international conferences, resulting in successful research outputs.</li> </ul>	
3	<p><b>Project Management</b></p> <ul style="list-style-type: none"> <li>▪ To co-ordinate the operational aspect of research networks, for example, arranging meetings and updating websites etc. and contribute to collaborative decision making with colleagues in this area of research.</li> </ul>	5%
4	<p><b>Funding Applications</b></p> <ul style="list-style-type: none"> <li>▪ To identify opportunities and assist in writing bids for research grant applications. Prepare proposals and applications to both external and/or internal bodies for funding, contractual or accreditation purposes.</li> </ul>	5%
5	<p><b>Collaboration</b></p> <ul style="list-style-type: none"> <li>▪ To build relationships with both internal and external contacts in order to exchange information, to form relationships for future collaborations and identify potential sources of funds and/or opportunities for collaboration.</li> </ul>	5%
6	<p><b>Supervision</b></p> <ul style="list-style-type: none"> <li>▪ To support the supervision of undergraduate and/or postgraduate students projects, fieldwork and placements, as appropriate.</li> </ul>	5%

## Person specification

	<b>Essential</b>	<b>Desirable</b>
<b>Skills</b>	<ul style="list-style-type: none"> <li>▪ Excellent oral and written communication skills, including the ability to communicate with clarity on complex information.</li> <li>▪ High analytical ability to analyse and illuminate data, interpret reports, evaluate and criticise texts and bring new insights.</li> <li>▪ Ability to creatively apply relevant research approaches, models, techniques and methods.</li> <li>▪ Ability to assess and organise resource requirements and deploy effectively.</li> <li>▪ Ability to build relationships and collaborate with others, both internally and externally.</li> <li>▪ Ability to facilitate conceptual thinking, innovation and creativity</li> <li>▪ Emerging skills in research leadership and planning</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ability to foster a research culture and commitment to learn in others.</li> </ul>
<b>Knowledge and experience</b>	<ul style="list-style-type: none"> <li>▪ Practical manufacturing experience working with polymer composites in an academic or industrial environment.</li> <li>▪ Extensive research experience with an established national and growing international reputation in the field of composites manufacturing.</li> <li>▪ A consistent track record of publishing research in peer reviewed journals in top 10% SNIP</li> <li>▪ Proven record of promoting and maintaining collaborative links with industry</li> <li>▪ Delivering industrial standard reports</li> <li>▪ Track record of securing research grant income as a principal or co-investigator in composites manufacturing</li> <li>▪ Awareness of health and safety policies and procedures in the laboratory</li> </ul>	<ul style="list-style-type: none"> <li>▪ Previous success in gaining support for externally funded research projects.</li> <li>▪ Experience of developing new approaches, models, techniques or methods in research area.</li> <li>▪ Previous experience working on large research projects with multiple industrial/academic partners</li> <li>▪ Track record of publishing papers preferably in the field of polymer composites.</li> <li>▪ Experience of writing Risk and COSHH assessments for new apparatus and processes in the laboratory</li> <li>▪ Research experience in composites manufacturing in the areas of: <ul style="list-style-type: none"> <li>- High rate deposition and rapid processing technologies</li> <li>- Design for manufacture via validated simulation</li> <li>- Inspection and in-process evaluation</li> <li>- Composites sustainability, including recycling and re-use</li> </ul> </li> </ul>

<b>Qualifications, certification and training (relevant to role)</b>	<ul style="list-style-type: none"> <li>▪ PhD or about to obtain in relevant subject area</li> </ul>	<ul style="list-style-type: none"> <li>▪ PhD relating to polymer composites</li> <li>▪ Membership of a professional body where appropriate.</li> </ul>
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As part of this, we welcome a diverse population to join our work force and therefore encourage applicants from all communities, particularly those whose protected characteristics under the Equality Act 2010, are not well-presented in our current staff body.



The University is a signatory of the Declaration on Research Assessment (DORA). As such we commit to focus on the scientific content of publications (where requested or provided as part of the recruitment and selection process) as a basis for review of quality, and consideration of value and impact of research conducted, rather than any proxy measures such as Journal Impact Factor.

## Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

- Valuing people**                      Is friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
- Taking ownership**                      Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
- Forward thinking**                      Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
- Professional pride**                      Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
- Always inclusive**                      Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

## Key relationships with others

