



<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>	Faculty of Engineering, M3	<b>Location</b>	University Park, Wolfson Building

## Purpose of role

	<b>Main responsibilities</b> (Primary accountabilities and responsibilities expected to fulfil the role)	<b>% time per year</b>
1	<p>Working in the laboratory fabricating and testing optical fibre. In detail:</p> <p><b>FABRICATING OPTICAL FIBRES</b></p> <p>Training will be given on glass precursor purification and glass melting, and annealing, in our world-class facility.</p> <p>As-made glass boules will be extruded to form fibreoptic preforms</p> <p>Preforms will be fibredrawn on our customised draw tower</p> <p>The fibre will be taken to the optical bench for optical loss measurement</p> <p>Refractive index measurements will be in conjunction with Nottingham trent University Physics Department</p> <p><b>SAFETY ASPECTS</b></p> <ul style="list-style-type: none"> <li>As a senior member of the Research Group, you will be expected to set a good example of safe practice in the laboratory.</li> <li>This includes ensuring that the safety documentation is updated when appropriate.</li> </ul> <p>It also includes guiding young PhD students to adhere to safe practice</p>	80%

2	<p>Research Group Meetings, in detail:</p> <ul style="list-style-type: none"> <li>• You will attend the weekly Research Group Meeting.</li> <li>• You will make a PowerPoint presentation as detailed above.</li> <li>• You will listen to and make suggestions to help all of the other members of the Group. Especially you will lead and guide the young PhD members of our Group.</li> </ul>	5%
3	<p>Writing PowerPoint reports for Research Group Meetings and for the Sponsor meetings and first draft research papers for publication. In detail:</p> <p><b>POWERPOINT REPORTS</b></p> <ul style="list-style-type: none"> <li>• At the weekly Research Group Meeting you will present the previous week's results as PowerPoint slides.</li> <li>• The slide presentation will be properly introduced and conclusions drawn</li> <li>• The slide presentation will end with suggestions for future work</li> <li>• The group will comment on the work and provide helpful suggestions</li> <li>• For the Sponsor, you will write the first draft report as a PowerPoint presentation and Profs Seddon, Farries and Drs Furniss and Phang, will help you to get it to the highest level of scholarship</li> <li>• For Sponsor meetings, you will present you PPT report and field questions from the Sponsor with the help if your Advisors.</li> </ul> <p><b>RESEARCH PUBLICATIONS</b></p> <ul style="list-style-type: none"> <li>• You will write the first draft of any paper from your research work</li> <li>• Profs Seddon, Farries and Drs Furniss and Phang will then read and make comments for improving</li> <li>• You will be responsible for submitting the paper to a peer-reviewed journal in the correct format</li> </ul>	15%

## Person specification

	Essential	Desirable
<b>Skills</b>	<ul style="list-style-type: none"> <li>• Making and characterising optical fibres</li> <li>• Manage own time and workload effectively</li> <li>• Able to work in a team and independently</li> <li>• Great communication skills</li> </ul>	<ul style="list-style-type: none"> <li>• Making and characterising mid-infrared glass fibres specifically chalcogenide glass fibres. Training will be given if not.</li> </ul>
<b>Knowledge and experience</b>	<ul style="list-style-type: none"> <li>• Knowledge and laboratory experience in characterising optical fibres at the bench</li> <li>• Understanding of optics, photonics and fibreoptic and waveguide devices and their applications</li> <li>• Handling fibreoptics at the optical bench and testing their characteristics</li> <li>• Experience of handling equipment in the laboratory</li> <li>• Experience working 'hands on' at the laboratory Bench</li> <li>• Practical experience of independent working</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of mid-infrared photonics. Training will be given if not.</li> <li>• Fabrication of optical fibres. Training will be given if not.</li> <li>• Fabrication of chalcogenide glass optical fibres. Training will be given if not.</li> <li>• Synthesis of glasses especially chalcogenide glasses. Training will be given if not.</li> <li>• Knowledge and experience in fibreoptics is desirable with a willingness to learn about brand new mid-infrared optical fibres</li> </ul>
<b>Qualifications, certification and training (relevant to role)</b>	<ul style="list-style-type: none"> <li>• First degree in chemistry, physics, chemical engineering, electronic engineering, latter with photonics and optics training, or similar.</li> <li>• PhD or about to obtain in fibreoptics</li> </ul>	



The University strongly endorses Athena SWAN principles, with commitment from all levels of the organisation in furthering women's careers. It is our mission to ensure equal opportunity, best working practices and fair policies for all.

## 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 always equitable and fair and works with integrity. Proactively looks for ways to develop the team and is comfortable providing clarity by explaining the rationale behind decisions.
- Taking ownership** Is highly self-aware, looking for ways to improve, both taking on board and offering constructive feedback. Inspires others to take accountability for their own areas.
- Forward thinking** Driven to question the status quo and explore new ideas, supporting the team to "lead the way" in terms of know-how and learning.
- Professional pride** Sets the bar high with quality systems and control measures in place. Demands high standards of others identifying and addressing any gaps to enhance the overall performance.
- Always inclusive** Ensures accessibility to the wider community, actively encouraging inclusion and seeking to involve others. Ensures others always consider the wider context when sharing information making full use of networks and connections.

## Key relationships with others

