Job title	Research Associate / Fellow in Optical Metrology (part time)	Job family and level	Research and Teaching Level 4 / 4CTG
School/ Department	Faculty of Engineering, Institute for Advanced Manufacturing	Location	Advanced Manufacturing Building, Jubilee Campus, Nottingham

Purpose of role

The successful candidate will join a world leading research team in metrology, intelligent manufacturing, robotics, digitalisation, and factory automation. Our friendly and inclusive team sits within the Institute for Advanced Manufacturing at the University of Nottingham.

As part of the research team, the successful candidate will contribute to the Made Smarter Innovation - Research Centre for Connected Factories project. The Connected Factories Made Smarter Centre aims to deliver a platform for next generation resilient connected manufacturing services. It will allow future manufacturing operations to be delivered by ubiquitous production units that can be easily repurposed, relocated and redeployed in response to changing market demand.

The successful candidate will be expected to contribute to in-process metrology; by using integrated metrology and real-time process monitoring the project aims to detect process non-conformance/anomalies with respect to standard operating instructions.

At the University of Nottingham, we are always pushing boundaries with our innovation. We believe that our people are the key to our success. We also understand that some candidates are reluctant to apply unless they tick every box of the criteria stated on an advert. However, provided you have a PhD (or are close to completion), if you do not tick every box but feel you have what it takes to be successful in this role, we would encourage you to make an application.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	**Research Activities** • Perform research as part of a collaborative team. Contribute to the achievement of the research objectives of the "Connected Factories" Made Smarter Centre. • Research performed will contribute to and enhance a number of the team's key areas of research, which include metrology, modelling and simulation, optimisation, data science, system integration and machine learning.	70%
2	**Dissemination & Exploitation** • Write research reports and papers to disseminate results.	20%

	• Participate in the delivery of workshops to a range of audiences in support of project dissemination, exploitation, and impact strategies.	
3	**Other** Any other duties appropriate to this post.	10%

Person specification

	Essential	Desirable

Skills	• Excellent interpersonal skills:
	   o Effective written and verbal communication skills with attention to detail.
	   o Active listening skills.
	   o Collaborative team player.
	• Good analytical and problem-solving skills.
	• Excellent organisation and time management skills with a proven ability to work to deadlines.	

Knowledge and experience	• Demonstrable experience Programming (i.e., a high-level general-purpose language) and software development.
	• Demonstrable experience of machine learning and AI techniques.
	• A track record of relevant research publications.
		• Experience with one or more of the following:
		   o Optical metrology
		   o Photogrammetry
		   o Imaging and Machine Vision
		• Experience of undertaking research in optical metrology.

Qualifications, certification and training (relevant to role)	• PhD (or working towards a PhD) in Manufacturing Engineering, Computer Science, or a related discipline.	

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

Line manager → Principal Investigator

Role holder → Research Associate / Fellow

Key stakeholder relationships → Project Partners | Colleagues | Partner Universities