

Person Specification

Post Title:	Professor in Materials	Post No:	S3034
Organisation Unit:	School of Science and Technology, Materials and Engineering Research Unit		
Grade:	Professorial Band 1/2/3	Date Compiled:	February 2015

Attributes	Essential *	Desirable
Knowledge	<p>Internationally excellent or internationally leading specialist knowledge of a research area, and its associated research methods, and future growth areas, that is complementary to the research activities of the multi-disciplinary Materials and Engineering Research Unit in the School of Science and Technology.</p> <p>Substantial knowledge of one or more of the following research areas within a Materials field that is complementary to the research activities of the multi-disciplinary Materials and Engineering Research Unit in the School of Science and Technology: (1) Theory and/or Modelling; (2) Advanced/Functional Materials and Devices; (3) Interfacial science; and, (4) Biomaterials and Bioengineering.</p> <p>Substantial understanding of research applications and national and international impacts within a field that is complementary to the activities of the Materials and Engineering Research Unit in the School of Science and Technology.</p> <p>Advanced knowledge of national and international research funding streams, including those recognised as major challenges and priorities by funding bodies.</p> <p>Active participation in the Research Excellence Framework.</p>	<p>Advanced knowledge of current teaching, learning and assessment issues for Higher Education.</p> <p>Detailed knowledge of contemporary Higher Education issues of particular significance for the future development of the industry and profession.</p>

<p>Skills</p>	<p>Ability to conduct, lead and manage internationally excellent research that demonstrates academic rigour and high potential for societal impact.</p> <p>Included within their wider publication portfolio, the ability to publish at least 4 high quality journal paper outputs in a 5 year cycle as lead author that report significant original research at 3* (internationally excellent) and 4* (world-leading) levels.</p> <p>Excellent undergraduate and postgraduate project and postgraduate researcher supervision skills. Excellent postdoctoral researcher line management skills.</p> <p>Ability to secure external research grants and contracts income from diverse sources. This can include the ability to capture funding from: Research Councils; National and International Funding Agencies; Industrial and Commercial Organisations; Consultancy contracts; Innovation and Technology Exploitation and Translation Agencies.</p> <p>Excellent interpersonal, communication and networking skills. Ability to build and sustain productive working collaborative relationships with external organisations including centres of excellence and professional societies and institutes, preferably both nationally and internationally.</p> <p>Ability to conduct research that makes an impact on the internal research environment of the institution and on building academic capacity, and which impacts on the external national and international community.</p> <p>Ability to contribute to the development and implementation of research strategy within a distinct area of the institution, promoting the vitality and sustainability of the research environment, for example co-ordinating research activities, leading a research team, and developing and mentoring staff.</p> <p>An inspiring teacher. Ability to develop curricula preferably at the level of developing and implementing new academic programmes for undergraduate, postgraduate or professional courses that draw directly on personal research, consultancy expertise or ongoing professorial experience.</p> <p>Ability to lead on the development of commercially viable Intellectual Property (IP) and to contribute to and actively facilitate technology translation activities.</p> <p>Ability to make a significant contribution to the Research Excellence Framework 2020 exercise.</p>	
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<p>Experience</p>	<p>Sustained track record of conducting, leading and managing research in a field that is complementary to the research activities of the Materials and Engineering Research Unit in the School of Science and Technology.</p> <p>Sustained record of performing research in one of the following research areas within a field that is complementary to the research activities of the Materials and Engineering Research Unit in the School of Science and Technology: (1) Modelling and simulation; (2) Imaging and sensing; (3) Advanced Materials and Devices; or, (4) Interfacial science and bioengineering.</p> <p>Sustained record of publishing results of significant original research as high quality journal papers, including a significant number at 3* (internationally excellent) and 4* (world-leading) levels.</p> <p>Supervision of Postgraduate Doctoral Research projects to successful completion as Director of Studies. Line management of Research Staff.</p> <p>Sustained track record of securing significant external research grants and contracts income from diverse sources.</p> <p>Collaborative relationships with external organisations including with centres of excellence and professional societies and institutes that have led to funding, publications, and/or externally recognised esteem. Participation in National and International networks.</p> <p>Significant involvement in national and international conferences, for example organising, serving on the scientific committee, session chairing, giving invited/plenary talks.</p> <p>External Ph.D. examinations.</p> <p>Production of impact from research on the external national and international community. This may include generation and exploitation of granted Patented Inventions.</p> <p>Evidence of contribution to the development and implementation of research strategy with successful outcomes in building institutional academic and research capacity.</p> <p>Experience as a teacher, tutor and facilitator of student learning, commensurate with practice within discipline, which can include at postgraduate level.</p> <p>Experience of innovation in curriculum development.</p> <p>If U.K. based, active participation in previous Research Excellence Framework or Research Assessment Exercises.</p>	<p>Publication of books, book chapters and invited review articles.</p> <p>Substantial teaching experience at postgraduate level.</p> <p>Experience of editing academic journals.</p>
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Qualifications	A good Honours Degree (or equivalent) and a Ph.D. (or equivalent Doctorate level qualification) in a relevant disciplinary area. Membership of a recognised professional body.		Fellowship of a recognised professional body.	
Competencies	COMPETENCY	LEVEL	COMPETENCY	LEVEL
	Communication and Influencing Communicates effectively with a wide range of diverse internal and external stakeholders, influencing and negotiating change. Networks internally to keep ahead of developments.	3	Customer Focus Provides a quality service that is regularly reviewed. Anticipates customer needs. Actively seeks feedback on services from customers and makes appropriate changes to services and to underpinning policy/strategy.	3
	Organisation and Delivery Takes account of organisational priorities to ensure that operational and strategic plans are being implemented and achieved.	3	Team Working Leads aspects of team work, seeking and implementing improvements to the team's outputs/services and developing colleagues within the team. Challenges colleagues.	3
	Leading and Coaching Is visible and publicly champions initiatives to provide direction. Takes responsibility for an area of work and for its outputs. Makes time to get to know people and motivate them. Regularly reviews performance of self and others.	3	Making Informed Decisions Uses a wide range of complex data to take controlled risks to achieve greater gain. Uses trends and data to establish controls and performance indicators.	3
	Creativity and Innovation Reviews, tests and implements new concepts, models and approaches to practice in support of service development and delivery.	3		

	<p>Entrepreneurial and Commercial focus</p> <p>Keeps up to date with the factors influencing the commercial context of Higher Education and actively seeks out opportunities for income generation, commercial exploitation, and to ensure that NTU retains a competitive edge within the sector.</p>	4		
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Person Specification drawn up by:	College of Arts and Science HR	Date: February 2015
Approved for department by:	Professor Martin McGinnity, Dean of the School of Science and Technology	Date: February 2015

* Please note: in compliance with our obligations under the Immigration, Asylum & Nationality Act 2006, we will require to check original documentary proof of eligibility to work in the UK