



Job Title	Senior Research Fellow in Power Electronics Design
School/Department	Department of Electrical and Electronic Engineering
Job Family and Level	UNNC Scale A Level 5
Contract Status	Full-time, fixed-term for 3 years. This contract may be extended based on mutual agreement.
Location	University of Nottingham Ningbo China
Hours of Work	Regular working hours
Responsible to	Head of the Department of Electrical and Electronic Engineering

Purpose of role

The purpose of this role will be to lead and deliver individual and collaborative research in the area of Power Electronics, including Smart Grids and Electrical Drives, and make a contribution to the direction of research programmes in the Department of Electrical and Electronic Engineering.

The role will be responsible for generating new intellectual understanding/knowledge through the application of knowledge and for developing ideas for application of research outcomes.

The role holder will join the Power Electronics, Machines and Control Research Group at the Faculty of Science and Engineering.

This job will give the opportunity to work to develop a novel range of power electronics and drives as part of their future product line. This post also be linked to research activities linked to the University's Provincial Platforms, as the China-Germany Joint Laboratory on Smart Grids of the Zhejiang Province.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	To take the lead on, plan, develop and conduct individual and/or collaborative research objectives, projects and proposals either as an individual or as part of a broader programme.	40%
2	To acquire, analyse, interpret and evaluate research findings/data using approaches, techniques, models and methods selected or developed for the purpose.	10%
3	To establish a national reputation and regularly disseminate and explain research findings through peer-reviewed publications, conferences and other appropriate media.	10%
4	To generate income by developing and winning support for innovative research proposals and funding bids.	5%
5	To manage the application of a range of methodologies, approaches and techniques appropriate to the type of research personally being pursued. Where appropriate investigate and devise research methods and approaches.	5%

6	To communicate complex and conceptual ideas to those with limited knowledge and understanding as well as to peers, using high level skills and a range of media.	5%
7	To build relationships and collaborate actively with internal and external contacts, nationally and if appropriate internationally to complete research projects and to advance the discipline.	5%
8	Be responsible for managing and/or monitoring assets and budgets allocated and the use of research resources to ensure that effective use is made of them.	5%
9	Be responsible for resolving problems to meet research objectives and deadlines.	10%
10	Be responsible for the safe conduct of work within work area ensuring that the School's arrangements for compliance with the University Safety Policy are implemented. To participate in training and staff development events as trainer or trainee as appropriate. To maintain appropriate professional development, expertise and awareness. To undertake other tasks and responsibilities as may reasonably be required.	5%



Person specification

	Essential	Desirable
Skills	<ul style="list-style-type: none">▪ Excellent oral and written communication skills, including the ability to communicate with clarity on complex and conceptual ideas to those with limited knowledge and understanding as well as to peers, using high level skills and a range of media.▪ Ability to devise, advise on and manage research programmes.▪ Ability to manage resources and an understanding of management processes.▪ High level analytical capability to facilitate conceptual thinking, innovation and creativity.▪ Ability to build relationships and collaborate with others, internally and externally.	<ul style="list-style-type: none">▪ Fluency in both English and Chinese Language
Knowledge and experience	<ul style="list-style-type: none">▪ Sufficient breadth or depth of specialist knowledge in the discipline to develop research programmes and methodologies▪ Experience of developing research methodologies and devising models, approaches, techniques, critiques and methods.▪ Extensive research experience within subject specialism.▪ Experience and achievement in chosen field, reflected in growing and consistent national reputation.▪ A consistent track record of published research in peer reviewed journals.▪ Extensive experience and demonstrated success in delivering research results.	<ul style="list-style-type: none">▪ A growing international reputation in their field.▪ Experience, achievement and growing reputation in the discipline, reflected in relevant national committee memberships, and/or involvement in national research events.▪ Track record in gaining support for significant externally funded research and consultancy projects e.g. with industry, commerce, public bodies.▪ Experience of supervising junior colleagues.▪ Experience of working with electrical drives.▪ Experience of working with permanent magnet motors.▪ Experience in commissioning of electrical drives.
Qualifications, certification and training (relevant to role)	<ul style="list-style-type: none">▪ PhD or equivalent in area related to power electronics.	<ul style="list-style-type: none">▪ Membership of a professional body where appropriate.



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

