

Job Description - Assistant Professor (Research Focused)

Job title	Assistant Professor (Research Focused)
Department	WMG
Grade	7

Job purpose (a summary of the role)	Undertake battery anode activities to support the work of the department and Principal Investigator. Develop and enhance academic reputation with industrial relevance. Conduct collaborative research programmes and deliver scientific innovation.
Duties and responsibilities	Project Specific Responsibilities The successful candidate will contribute to the research, development, and innovation of anode formation for advanced lithium-ion batteries. The role requires a combination of materials science, manufacturing and electrochemical characterization to support the development of sensor enabled battery formation. Key Responsibilities - Investigate and optimize anode formation with sensor for lithium-ion batteries, from slurry preparation to electrode manufacture and cell development. - Quantify electrochemical, physical, and material properties using advanced characterization techniques, including electrochemical cycling testing. - Develop and implement experimental plans, data analysis methodologies, and performance benchmarking protocols to support project objectives and technology readiness progression. - Collaborate closely with multidisciplinary internal teams, industrial partners, and university research groups to accelerate technology development, scale-up, and prototyping. - Interact with researchers, engineers, students, and technical staff, fostering technical excellence, knowledge transfer, and capability development. - Write and publish scientific papers in leading journals related to battery materials, electrochemistry, energy storage technologies, and advanced manufacturing. - Present and disseminate research findings at national and international conferences, workshops, industry forums, and stakeholder meetings to enhance the impact and visibility of the research programme. Principal Accountabilities Research and Scholarship - Establish a sound research base within the department to develop research objectives, projects, and proposals. - Identify funding sources and contribute to securing funds to support a developing research agenda. - Extend, transform, and apply the knowledge acquired from scholarship to research and appropriate external activities. - Write or contribute to publications or disseminate research findings using other appropriate media. - Make presentations at conferences or exhibit work in other appropriate events. - Routinely communicate complex and conceptual ideas to those with limited knowledge and understanding and peers using high-level skills and a range of media. Teaching and Learning Support - Contribute to the supervision of postgraduate research students. - Contribute to the assessment of students learning and knowledge.

	Administration and Other Activities 1. Undertake specific departmental roles as may be required. 2. Attend departmental meetings and to participate (where necessary) in other committees and working groups within the department, the faculty, and the University. 3. Participate in relevant professional activities. 4. Ensure compliance with health and safety in all work aspects and, when appropriate, undertake risk assessments. 5. Participate in and develop external networks, for example, to identify funding sources, generate income, obtain projects, or build relationships for future activities.
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Person Specification <i>The Person Specification focuses on the essential and desirable knowledge, skills, experience and qualifications required to undertake the role effectively. This is measured by (a) Application Form, (b) Test/Exercise, (c) Interview, (d) Presentation.</i>		
Essential Criterion No.	Essential Criterion Description	Measured by
E1	Good honours degree and possession of a PhD or equivalent in a relevant discipline (e.g., battery formation, electrochemistry, lithium-ion technology).	A
E2	Proven capability in topics of lithium-ion battery (e.g., e.g., anode, graphite, silicon, characterisation).	A,C & D
E3	Proven ability and achievements in research, demonstrated by high-quality publications record or equivalent output.	A,C & D
E4	Proven contribution to research grant applications and the ability to generate external funding to support research projects.	A,C & D
E5	Sufficient breadth or depth of specialist knowledge in the discipline to develop research programmes and methodologies.	A,C & D
E6	Good interpersonal skills, both supporting existing and developing new relationships.	A,C & D
E7	Good effective communication (oral and written) skills, presentation, and training skills	A,C & D
E8	Ability and willingness to work as a member of a team and contribute positively to a collegial team environment and to be able to work independently	A & C
E9	Ability to initiate, plan organise, implement, and deliver programmes of work to tight deadlines	A & C
E10	Ability to write research reports and papers in styles accessible to both academic and, where relevant, industry audiences	A & C
E11	Engaged in continuous professional development.	A & C
E12	Able to use a range of delivery techniques to enthuse and engage students.	A,C & D
E13	Understanding of equal opportunity issues as they may impact on areas of research content.	A & C

Job Description – Research Fellow

Job title	Research Fellow
Department	WMG
Grade	6

Job purpose (a brief summary of the role)	Undertake activities to support the work of the department and Principal Investigator. Develop and enhance academic reputation with industrial relevance. Conduct collaborative research programmes and deliver scientific innovation.
Duties and responsibilities	Project Specific Responsibilities There will be a range of activities to research, develop, and innovate, which you have responsibilities to deliver and shape for the next stage of development. Activities such as: • Develop lithium-ion battery cell formation and manufacturing activities. • Quantify performance properties (electrochemical, physical, material, chemistry). • Interact with internal teams, industry partners and university collaborators. • Write and publish peer-reviewed scientific articles. • Disseminate research findings in conferences. Principal Accountabilities Research and Scholarship 7. Establish a sound research base within the department to develop research objectives, projects and proposals. 8. Identify funding sources and contribute to securing funds to support a developing research agenda. 9. Extend, transform and apply the knowledge acquired from scholarship to research and appropriate external activities. 10. Write or contribute to publications or disseminate research findings using other appropriate media. 11. Make presentations at conferences or exhibit work in other appropriate events. 12. Routinely communicate complex and conceptual ideas to those with limited knowledge and understanding and to peers using high-level skills and a range of media. Teaching and Learning Support 3. Contribute to the supervision of postgraduate research students. 4. Contribute to the assessment of students learning and knowledge. Administration and Other Activities 6. Undertake specific departmental roles as may be required. 7. May be required to attend departmental meetings and to participate (where necessary) in other committees and working groups within the department, the faculty and the University. 8. Participate in relevant professional activities. 9. Ensure compliance with health and safety in all aspects of work and, when appropriate, undertake risk assessments. 10. Participate in and develop external networks, for example, to identify sources of funding, generate income, obtain projects, or build relationships for future activities.

Person Specification

The Person Specification focuses on the essential and desirable knowledge, skills, experience and qualifications required to undertake the role effectively. This is measured by (a) Application Form, (b) Test/Exercise, (c) Interview, (d) Presentation.

Essential Criterion No.	Essential Criterion Description	Measured by
E1	Good honours degree and possession of a PhD or equivalent in a relevant discipline (e.g., battery formation, battery sensor, electrochemistry, lithium-ion, post-mortem analysis).	A
E2	Proven capability in topics of lithium-ion battery (e.g., electrochemistry, battery formation, battery sensor, post-mortem analysis). Not all are required for the post. See more details in the job advert.	A,B & C
E3	Proven achievements in research, which is quantifiable by publications record.	A,B & C
E4	Sufficient specialist knowledge in the discipline to develop research programmes and methodologies.	A,B & C
E6	Good effective communication skills, both presentation and writing skills.	A,B & C
E7	Good interpersonal skills, both supporting existing and developing new relationships.	A,B & C
E8	Ability to work as a team member and independently, plus contribute positively to a collegial environment.	A,B & C
E9	Ability to initiate, plan, organise, implement, and deliver research investigations to structured deadlines.	A,B & C
E10	Ability to write research reports and publish scientific papers about academic and industry relevance.	A,B & C

Desirable Criterion No.	Desirable Criterion Description	Measured by
D1	Proven contribution to grant applications and the ability to generate external funding to support research.	A,B & C
D2	Understanding of equal opportunity issues as they may impact on areas of research content.	A,B & C