POSITION DESCRIPTION
Academic Positions
(In addition to the Position Classification Standards)

Position Title: Auto CRC Research Fellow on lithium ion batteries (project 1) Level: A

Faculty/Division: AIIM Department/Location: Institute for Superconducting and Electronic Materials

Primary Purpose of the Position:

The appointee will play a critical role in delivering key research milestones as set by Auto CRC electrification program. The successful candidate will be heavily involved in development of novel materials for lithium ion batteries, with strong impetus on applications in automotive sector. He/she will actively participate in postgraduate student supervision, equipment maintenance, delivery of high level publications and dissemination of results through participation in top class conferences.

The candidate will be expected to establish a vigorous research program that complements and enhances ISEM's expertise in battery materials, initiate new and strengthen existing collaborative research efforts within University of Wollongong and external stakeholders. He/she will be expected to contribute significantly to the deployment of battery manufacturing line, as a result of successful ARC LIEF project.

Position Environment:

ISEM seeks to stimulate the technological and commercial development to advance technologies including batteries for electric vehicles and energy storage; applied superconductivity for electrical and medical devices; energy conversion and transmission; spintronic and electronic materials for applications; terahertz science; and nano structured materials.

The Institute is located at the Australian Institute for Innovative Materials, at the University of Wollongong's Innovation Campus, Australia's first multifunctional materials facility that has the capacity to develop the processes and devices needed to scale-up lab-based breakthroughs in preparation for commercialisation. ISEM has extensive infrastructure, with close to 20 specialized laboratories, including some of the top of the line scientific equipment such as scanning tunnelling microscopes, battery testing and management systems, single crystal growth equipment, and magnetic/electric properties measurement systems.

ISEM has been extremely successful in attracting competitive research funding from Australian Research Council and other funding agencies. It has substantially contributed to overall publications and citations at the university for a number of years. With more than 60 PhD students, ISEM is one of the main hubs in postgraduate student training at UOW.

Major Accountabilities/Responsibilities:

Responsibilities		Outcome	Office Use Only
1.	Contribute to the development of novel lithium ion battery materials, in particular electrodes and electrolytes, for electrical vehicles as well as research activities in related areas.	Completion of assigned research project assessed in terms of publications, generation of IP.	
2.	Collaboration with industry partners, internal and external stakeholders.	Improved deliverables directly related to the project. Establishment of new partnerships and links. Securing internal and external funding.	
3.	Postgraduate Students Supervision	Successful completions of PhD programs.	
4.	Quarterly research progress reports	Delivery of research progress reports as required by Auto CRC project funding guidelines.	
5.	Observe principles and practices of Equal Employment Opportunity	To ensure fair treatment in the workplace	
6.	Have OH&S responsibilities, accountabilities and authorities as outlined in the OHS Roles and Responsibilities Document	To ensure a safe working environment for self & others	

Inherent Requirements:

For all positions

This position description outlines the major accountabilities/responsibilities and the selection criteria against which you will be assessed as suitable for the position. As such there will be specific job requirements that we refer to as Inherent Requirements.

Inherent Requirements refer to your ability to:

- Perform the essential duties and functional requirements of the job;
- Meet the productivity and quality requirements of the position;
- Work effectively in the team or other type of work organisation concerned; and
- Do the job without undue risk to your own or others health, safety and welfare at work.

If you have any injuries, illness, disorder, impairment, condition or incapacity that may affect your ability to perform the inherent requirements of the position, we encourage you to discuss this with the University to assist in the process of identifying reasonable adjustments to enable you to perform the duties of the position. The University wants to place you in the best situation to use your skills effectively in the position you are applying for at the University.

Reporting Relationships:

Position Reports to:	Professor S. X. Dou
The position supervises the following positions:	PhD students
Other Key Contacts:	Other related ISEM personnel

Key Relationships:

Contact/Organisation: List of collaborators if available:	Purpose & Frequency of contact Purpose of such collaborations
ISEM academic staff	Joint research programs, external funding bids

Key Challenges:

1. To be a world class scientist in rapidly transforming and expanding research field. To be up to date with latest developments in the field.
2. To deliver outcomes of highest merits with potential commercialization prospects and to maintain research productivity with large number of publications in high impact factor journals.
3. To secure national competitive grants (ARC Discovery and Linkage)
4. To provide excellent postgraduate student training and guidance.
5. To help maintain an enthusiastic and productive collegial environment.

Knowledge & Skills:

Essential:

- Strong background and knowledge in electrochemistry and materials science
- Extensive experience in lithium ion battery research
- Throughout knowledge of concepts of lithium ion batteries for electrical vehicles
- Outstanding analytical skills.

Education & Experience:

Essential:

- PhD in materials engineering, chemistry, or physics
- Demonstrated research experience

Desirable:

- Demonstrated experience in dealing with industrial partners or industry oriented research, in particular in automotive sector

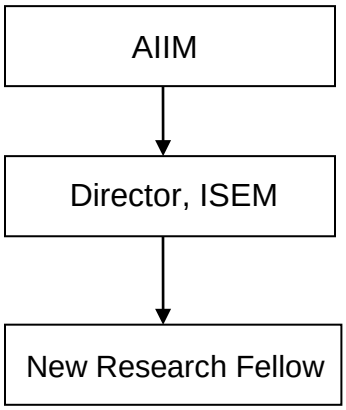
Personal Attributes:

- Excellent time management skills
- Excellent interpersonal skills
- Outstanding written and oral communication skills
- High level of motivation and initiative
- Ability to work under supervision and independently

Special Job Requirements:

May be required to perform duties as equipment or laboratory supervisor, undergo/provide trainings if necessary.

Organisational Chart:



Approval:

Approved by Head of Unit: _____

Date: _____

Approved by Personnel: _____

Date: _____

POSITION CLASSIFICATION STANDARD - Research Only
Level: A
Title: Associate Fellow

Description
A position classification standard describes the broad categories of responsibility attached to research-only academic staff at different levels. The standards are not exhaustive of all tasks in research-only academic employment, which is by its nature multi-skilled and involves an overlap of duties between levels. The standards provide an adequate basis to differentiate between the various levels of employment and define the broad relationships between classifications.

Progression through an academic career will normally be based on research, teaching, administrative functions and contribution to the profession. The balance of functions will vary according to level and position over time. It is only in exceptional circumstances that promotion would be solely on the research only position classification standards.

- General Standard
- Specific Duties
- Skill Base

General Standard
A Level A research-only academic is expected to contribute towards the research effort of the institution, and to develop her/his research expertise through the pursuit of defined properties relevant to the particular field of research.

Specific Duties
Specific duties required of a Level A research-only academic may include

- The conduct of research under limited supervision either as a member of a team or, where appropriate, independently, and the production or contribution to the production of conference and seminar papers and publications from that research.
- Involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise.
- Limited administrative functions primarily connected with the area of research of the academic.
- Development of a limited amount of research-related material for teaching or other purposes with appropriate guidance from other staff.
- Occasional contributions to teaching in relation to his/her research project(s).
- Experimental design and operation of advanced laboratory and technical equipment or conduct of advanced research procedures.
- Attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at departmental and/pr faculty meetings and/or membership of a limited number of committees.
- Advice within the field of the staff member's research to postgraduate students.
- A Level A research-only academic shall work with support, guidance and/or direction from staff classified at Level B and above and with an increasing degree of autonomy as the research academic gains in skill and experience.

Skill Base
A Level A research-only academic will normally have completed four years of tertiary study in the relevant discipline or have equivalent qualifications or research experience. In many cases a position at this level will require an honours degree or higher qualifications or equivalent research experience. Research experience may have contributed to or resulted in publications, conference papers, reports or professional or technical contributions which give evidence of research potential.

POSITION DESCRIPTION
Academic Positions
(In addition to the Position Classification Standards)

Position Title: Auto CRC Associate Research Fellow on LIB packaging (Project 2) Level: A

Faculty/Division: AIIM Department/Location: Institute for Superconducting and Electronic Materials

Primary Purpose of the Position:

The appointee will play a critical role in delivering key research milestones as set by Auto CRC electrification program. The Auto CRC Research Fellow will actively work on the development, programming and assembly of battery management system for electric/hybrid vehicles. The Research Fellow will be expected to carry out extensive research work in aforementioned research fields, actively collaborate with ISEM personnel and students, prepare and complete quarterly progress reports, as specified in the Auto CRC project funding rules. He/she will participate in postgraduate student supervision, equipment maintenance, delivery of high level publications and dissemination of results through participation in top class conferences.

The candidate will be expected to establish a vigorous research program that complements and enhances ISEM's expertise in battery materials, initiate new and strengthen existing collaborative research efforts within University of Wollongong and external stakeholders. He/she will be expected to contribute significantly to the deployment of battery manufacturing line, as a result of successful ARC LIEF project.

Position Environment:

ISEM seeks to stimulate the technological and commercial development to advance technologies including batteries for electric vehicles and energy storage; applied superconductivity for electrical and medical devices; energy conversion and transmission; spintronic and electronic materials for applications; terahertz science; and nano structured materials.

The Institute is located at the Australian Institute for Innovative Materials, at the University of Wollongong's Innovation Campus, Australia's first multifunctional materials facility that has the capacity to develop the processes and devices needed to scale-up lab-based breakthroughs in preparation for commercialisation. ISEM has extensive infrastructure, with close to 20 specialized laboratories, including some of the top of the line scientific equipment such as scanning tunnelling microscopes, battery testing and management systems, single crystal growth equipment, and magnetic/electric properties measurement systems.

ISEM has been extremely successful in attracting competitive research funding from Australian Research Council and other funding agencies. It has substantially contributed to overall publications and citations at the university for a number of years. With more than 60 PhD students, ISEM is one of the main hubs in postgraduate student training at UOW.

Major Accountabilities/Responsibilities:

Responsibilities		Outcome	Office Use Only
1.	Design and develop electric vehicle battery packaging system.	This development will offer a compact, reliable and flexible electric vehicle battery pack module system.	
2.	Engineer and construct testing facilities in a manufacturing environment.	Overall consistency of development packing systems is evaluated.	
3.	Verification of developed systems against “Tuk Tuk” and “e-bus” systems.	Improved understanding and further analysis of the battery packaging systems gained. Compliance with practically available requirements achieved.	
4.	Postgraduate Students Supervision	Successful completions of PhD programs.	
5.	Quarterly research progress reports	Delivery of research progress reports as required by Auto CRC project funding guidelines.	
6.	Observe principles and practices of Equal Employment Opportunity	To ensure fair treatment in the workplace	
7.	Have OH&S responsibilities, accountabilities and authorities as outlined in the OHS Roles and Responsibilities Document	To ensure a safe working environment for self & others	

Inherent Requirements:

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Inherent Requirements refer to your ability to:

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2. To deliver outcomes of highest merits with potential commercialization prospects and to maintain research productivity with large number of publications.
3. To secure national competitive grants (ARC Discovery and Linkage)
4. To provide excellent postgraduate student training and guidance.
5. To help maintain an enthusiastic and productive collegial environment.

Knowledge & Skills:

Essential:

- Strong background and knowledge in electronic or electric engineering, electric vehicles.
- Extensive experience in battery packing research and applications.
- Throughout knowledge operational principles and safety requirements in electric vehicles.
- Outstanding analytical skills.

Education & Experience:

Essential:

- PhD in electric/electronic/mechanical engineering.
- Demonstrated research experience

Desirable:

- Demonstrated experience in dealing with industrial partners or industry oriented research, in particular in automotive sector

Personal Attributes:

- Excellent time management skills
- Excellent interpersonal skills
- Outstanding written and oral communication skills
- High level of motivation and initiative
- Ability to work under supervision and independently

Special Job Requirements:

May be required to perform duties as equipment or laboratory supervisor, undergo/provide trainings if necessary.

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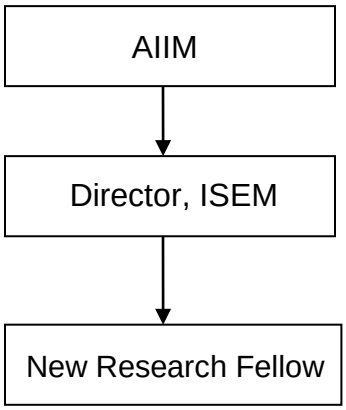

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- Involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise.
- Limited administrative functions primarily connected with the area of research of the academic.
- Development of a limited amount of research-related material for teaching or other purposes with appropriate guidance from other staff.
- Occasional contributions to teaching in relation to his/her research project(s).
- Experimental design and operation of advanced laboratory and technical equipment or conduct of advanced research procedures.
- Attendance at meetings associated with research or the work of the organisational unit to which the research is connected and/or at departmental and/pr faculty meetings and/or membership of a limited number of committees.
- Advice within the field of the staff member's research to postgraduate students.
- A Level A research-only academic shall work with support, guidance and/or direction from staff classified at Level B and above and with an increasing degree of autonomy as the research academic gains in skill and experience.

Skill Base
A Level A research-only academic will normally have completed four years of tertiary study in the relevant discipline or have equivalent qualifications or research experience. In many cases a position at this level will require an honours degree or higher qualifications or equivalent research experience. Research experience may have contributed to or resulted in publications, conference papers, reports or professional or technical contributions which give evidence of research potential.