



POSITION DESCRIPTION

Academic Positions

(In addition to the Position Classification Standards)

Position Title: FEGTEM Specialist/Research Fellow Level: B
 Faculty/Division: Australian Institute for Innovative Materials
 Department/Location: Electron Microscopy Centre, AIIM Facility

Primary Purpose of the Position:

The principle activity of this role will be to assist staff, students and non-university users of the University of Wollongong's Electron Microscopy Centre in all aspects of aberration corrected transmission electron microscopy including application and development of analytical techniques. The position will also provide training and research support to the projects required use of FEGTEM.

Position Environment:

The University of Wollongong Electron Microscopy Centre, located at the Australian Institute of Innovative Materials (AIIM) Facility, is a whole of university facility to provide high quality microscopy services, training and support for university and non-university users. This is a new position resulting from the need to provide high level service and research support for UOW researchers in the area of high resolution transmission electron microscopy utilising highly specialised techniques, e.g. EELS, EDX and diffraction analysis. New aberration corrected FEGTEM will be commissioned in May-June, 2013 as a result of a successful LIEF application.

Major Accountabilities/Responsibilities:

Responsibilities		Outcome	Office Use Only
1.	Responsible for the efficient functioning of JEM-ARM200F Transmission Electron Microscope.	Liaise with service engineers and technical staff to resolve problems efficiently and ensure minimal downtime. Guidelines/manuals for users are developed.	
2.	Provide training to the researchers and postgraduate students in using JEM-ARM200F.	All operators have been correctly trained on the equipment. Contribute to postgraduate student education and support the attraction of new users to the Centre.	
3.	Conduct service work for internal and external users.	All projects required use of FEGTEM received the necessary	

		support and completed on time.	
4.	Produce or contribute to the production of publications from her/his research.	Participate in writing of as a minimum two journal papers per annum.	
5.	Develop new analytical techniques and continuously improve the knowledge on best practice for use JEM steels. -AR	Ensure quality results for all materials and publications in top journals.	
6.	Advice on or assist students/staff with sample preparation techniques for FEGTEM.	Staff/students produce the most suitable for their task and high quality specimens.	
7.	Administrative functions primarily connected with the operation of EMC.	To ensure administrative functions are completed in a timely manner.	
8.	Observe principles and practices of Equal Employment Opportunity	A fair and pleasant work environment is provided for all staff and students	
9.	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.	

Reporting Relationships:

Position Reports to:	Director, UOW EMC
The position supervises the following positions:	Casual staff, postgraduate and undergraduate students, as required
Other Key Contacts:	EMC Staff Chief Operating Officer, AIIM Facility; Director, Institute for Superconducting and Electronic Materials Director, Intelligent Polymer Research Institute AIIM Laboratory and Safety Operations Officer Internal and external Electron Microscopy Centre users

Key Relationships:

Contact/Organisation:

Staff of Electron Microscopy Centre
Director, University of Wollongong Electron Microscopy Centre

Purpose & Frequency of contact

Equipment management and research support, daily
Activity review and planning, weekly

Key Challenges:

1. Development of new methodologies and troubleshooting
2. Establishment of new collaborations with internal and external users of electron microscopy facility
3. Data analysis
4. Effective communication of results both in written and oral forms

SELECTION CRITERIA - Knowledge & Skills:

Essential:

- Extensive knowledge and operating experience in field emission gun transmission electron microscopy and expertise in two of the following techniques: electron energy loss spectroscopy; energy dispersive x-ray spectroscopy, energy filtered imaging and atomic-resolution imaging in aberration-corrected S/TEM; electron diffraction
- Ability to interpret data obtained using aberration-corrected FEGTEM and associated analytical techniques
- Demonstrated capacity to work independently
- Excellent communication skills with an ability to interact with individuals at all levels and cultural diverse backgrounds
- Excellent computer skills

Desirable:

- Expertise in aberration-corrected electron microscopy
- Tomography
- Knowledge of iterative wave reconstruction theory

Education & Experience:

Essential:

- The Research Fellow must hold a PhD in materials science, physics or a related discipline.
- Proven track record in operation of transmission electron microscope and expertise in relevant analytical techniques.

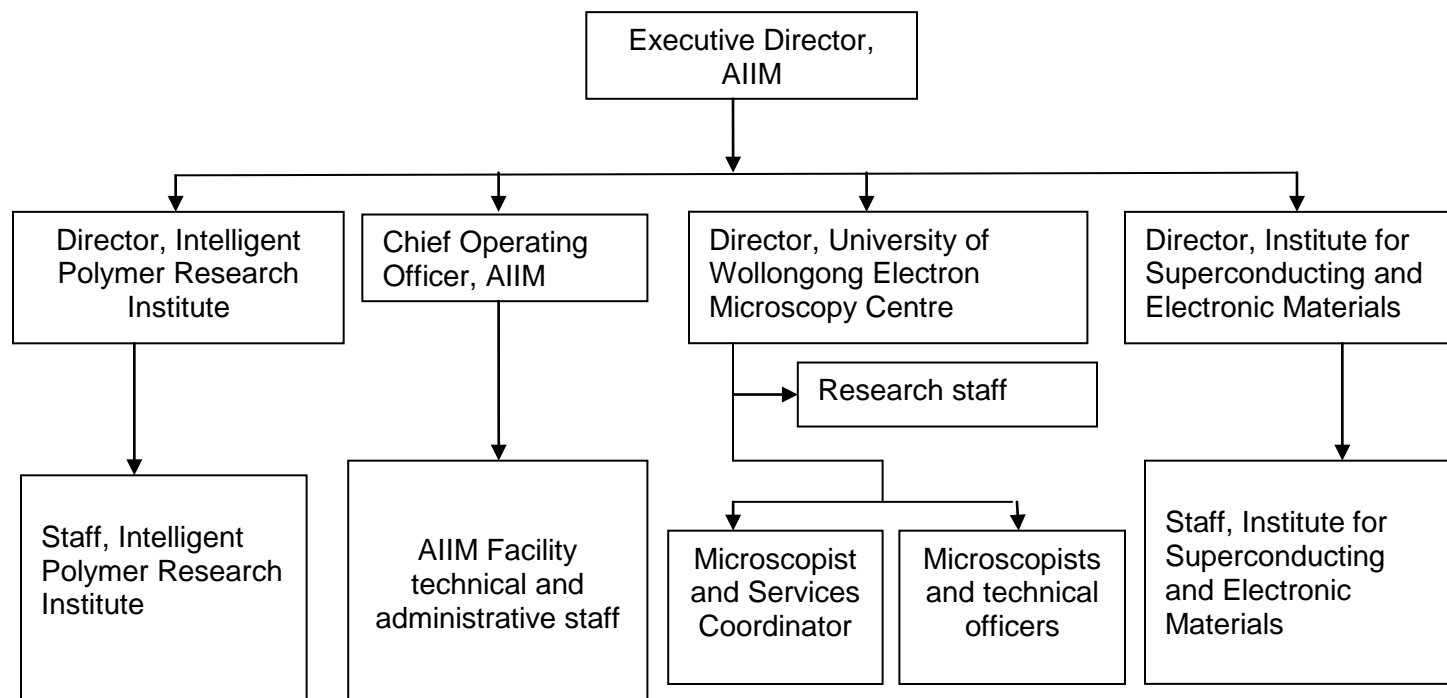
Personal Attributes:

- Excellent time management skills
- Good problem solving skills
- Very good knowledge of scientific English language
- Excellent communication and interpersonal skills with individuals at all levels and cultures
- Ability to work under supervision and independently

Special Job Requirements:

- Must adhere to safe work and laboratory practices.
- You will have the capability and willingness to offer, within reason, flexibility in work schedule to suit the special needs of the position as required for the effective and efficient operation of the Electron Microscopy Centre.

Organisational Chart:



Approval:

Approved by Head of Unit: _____

Date: _____

Approved by Personnel: _____

Date: _____



POSITION CLASSIFICATION STANDARD - Research Only

Level: B
Title: 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 B research-only academic is expected to carry out independent and/or team research within the field in which he/she is appointed and to carry out activities to develop his/her research expertise relevant to the particular field of research

Specific Duties

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

- The conduct of research either as a member of a team or independently, and the production of conference and seminar papers and publications from that research.
- Supervision of research-support staff involved in the staff members' research.
- Guidance in the research effort of junior members of research-only academic staff in his/her research area.
- Contribution to the preparation, or where appropriate individual preparation, of research proposal submissions to external funding bodies.
- Involvement in professional activities including, subject to availability of funds, attendance at conferences and seminars in the field of expertise.
- Administrative functions primarily connected with his/her area of research.
- Occasional contributions in the teaching program within the field of the staff member's research.
- Co-supervision, or where appropriate supervision, of major honours or postgraduate research projects within the field of the staff member's area of research.
- 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.

Skill Base

A Level B research-only academic will normally have completed a doctoral qualification or have equivalent qualifications or research experience. In addition he/she may be expected to have had post-doctoral research experience which has resulted in publications, conference papers, reports or professional or technical contributions which give evidence of research ability.