

Postdoctoral Research Associate/Research Fellow in  
Mining Operations  
The University of Sydney

Direct Link: <https://www.AcademicKeys.com/r?job=125418>

Downloaded On: Oct. 18, 2019 2:32am

Posted Jul. 10, 2019, set to expire Nov. 8, 2019

**Job Title** Postdoctoral Research Associate/Research Fellow in Mining Operations  
**Department** Faculty of Engineering  
**Institution** The University of Sydney  
Sydney, , Australia

**Date Posted** Jul. 10, 2019

**Application Deadline** Aug. 11, 2019  
**Position Start Date** TBC

**Job Categories** Post-Doc

**Academic Field(s)** Computer/Information Sciences  
Sciences - General  
Geology/Geosciences - General

**Job Website** <https://sydney.nga.net.au/cp/index.cfm?event=jobs.jati&returnToEvent=jobs.home&jobID=41C78E18-4749-B08B-AA8100A270C1&audienceTypeCode=EXT&UseAudienceTypeLanguage=1>

**Apply Online Here** <https://sydney.nga.net.au/cp/index.cfm?event=jobs.jati&returnToEvent=jobs.home&jobID=41C78E18-4749-B08B-AA8100A270C1&audienceTypeCode=EXT&UseAudienceTypeLanguage=1>

**Apply By Email**

Postdoctoral Research Associate/Research Fellow in  
Mining Operations  
The University of Sydney

Direct Link: <https://www.AcademicKeys.com/r?job=125418>

Downloaded On: Oct. 18, 2019 2:32am

Posted Jul. 10, 2019, set to expire Nov. 8, 2019

**Job  
Description**

- The opportunity to contribute to world class data science research in the application of automated Mine Orebody modelling
- Located at the Australian Centre for Field Robotics, Rio Tinto Centre for Mine Automation within the Faculty of Engineering at the University of Sydney
- Full-time fixed term for up to two years. Academic Level A or B: package \$94,629 p.a- \$126,279 p.a plus leave loading and up to 17% superannuation

About the opportunity

We are currently seeking a self-motivated and well-qualified postdoctoral researcher to contribute to theoretical and applied modelling research, with a focus on automated modelling of mine orebody in the presence of multiple data sources with different characteristics. The work will include application of the state-of-the-art machine learning techniques to data-driven modelling of geological surfaces combined with comprehensive validation under different real-world conditions. This role will provide an exceptional opportunity to work closely with academia and Rio Tinto at the intersection of fundamental research into autonomous systems and mine operations. You will work with the Centre's team of software engineers to facilitate the large-scale testing and operational deployment of your academic research. As a university academic, you will be expected to build research areas, engage in academic publication of research, and may also have the opportunity to teach at postgraduate and industry levels.

About you

The University values courage and creativity; openness and engagement; inclusion and diversity; and respect and integrity.

You will have a PhD or close to completion in applied mathematics, engineering, computer science or related discipline, be a team player with good communications skills and satisfy the following key requirements:

- Demonstrated expertise in probabilistic machine learning modelling and multi-sensor fusion
- Experience applying a broad range of machine learning techniques to specific problems, and assessing/comparing suitability of approaches in a given domain/application
- Experience with validation of specific applications of machine learning for robust, reliable deployment
- Desire to work on both theoretical and applied modelling tasks and support validation of the outcomes

Postdoctoral Research Associate/Research Fellow in  
Mining Operations  
The University of Sydney

Direct Link: <https://www.AcademicKeys.com/r?job=125418>

Downloaded On: Oct. 18, 2019 2:32am

Posted Jul. 10, 2019, set to expire Nov. 8, 2019

by experts in the mining industry

- Desire to work with domain experts and software engineers to capture real-world problems and translate them into functional, deployable solutions
- Experience in software development in Python, Matlab and/or C++

In addition, the following will be advantageous:

- Mine geology training and/or work experience
- Demonstrated experience in working closely with a software development team to transfer research outcomes into deployable and maintainable software components
- Demonstrated experience in working collaboratively with application domain experts
- Experience working with uncertain data, or techniques robust to incomplete or incorrect data
- Work experience in a mining research environment

#### About us

The Rio Tinto Centre for Mine Automation (RTCMA) was established by The Australian Centre for Field Robotics (ACFR) at the University of Sydney in 2007. Since its launch, it has become a world-class research group of scientists and engineers, recognised for both fundamental research and delivering technology to industry. The centre's research spans automation of equipment, geological interpretation and optimisation of equipment and processes. Funded by the global mining company Rio Tinto, the aim of the Centre for Mining Automation is to develop and implement the vision of a fully autonomous, remotely operated mine.

Since our inception 160 years ago, the University of Sydney has led to improve the world around us. We believe in education for all and that effective leadership makes lives better. These same values are reflected in our approach to diversity and inclusion, and underpin our long-term strategy for growth. We're Australia's first university and have an outstanding global reputation for academic and research excellence. Across our campuses, we employ over 7600 academic and non-academic staff who support over 60,000 students.

We are undergoing significant transformative change which brings opportunity for innovation, progressive thinking, breaking with convention, challenging the status quo, and improving the world around us.

#### How to apply

Postdoctoral Research Associate/Research Fellow in  
Mining Operations  
The University of Sydney

Direct Link: <https://www.AcademicKeys.com/r?job=125418>

Downloaded On: Oct. 18, 2019 2:32am

Posted Jul. 10, 2019, set to expire Nov. 8, 2019

For more information on the position and University, please view the candidate information pack available from the job's listing on the University of Sydney careers website.

All applications must be submitted via the University of Sydney careers website. Visit [sydney.edu.au/recruitment](http://sydney.edu.au/recruitment) and search by the reference number 1339/0719F to apply.

Closing date: 11:30pm 11 August 2019 (Sydney Time)

### **EEO/AA Policy**

We are committed to diversity and social inclusion. We welcome applications from women (particularly for senior and non-traditional roles), Aboriginal and Torres Strait Islander people, people with a disability, people who identify as LGBTIQ, and people from culturally and linguistically diverse backgrounds.

(c) The University of Sydney

### **Contact Information**

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

**Contact** Roszanna Hazlewood  
Recruitment Operations  
The University of Sydney  
Sydney  
Australia

**Contact E-mail** [recruitment.sea@sydney.edu.au](mailto:recruitment.sea@sydney.edu.au)