



## Position Description – Senior Research Fellow

### Position Details

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<b>Position Title:</b>	Senior Research Fellow, remote sensing wildfire
<b>Position Number:</b>	New
<b>College/Portfolio:</b>	STEM College
<b>School/Group:</b>	School of Science
<b>Campus Location:</b>	Based at the City campus, but may be required to work and/or be based at other campuses of the University.
<b>Classification:</b>	Academic Level C1
<b>Employment Type:</b>	Fixed Term – 2.5 years
<b>Time Fraction:</b>	0.8 FTE

### RMIT University

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RMIT is a leading multi-sector university of technology, design and enterprise with more than 91,000 students and 11,000 staff globally. We offer postgraduate, undergraduate, vocational education and online programs to provide students with a variety of work-relevant pathways.

Our purpose is to offer life-changing experiences for our students, and to help shape the world with research, innovation, teaching and industry engagement. With strong industry connections forged over 130 years, collaboration with industry remains integral to RMIT's leadership in education, applied and innovative research, and to the development of highly skilled, globally-focused graduates.

With three campuses in Melbourne (Central Business District, Brunswick and Bundoora), two in Vietnam (Hanoi and Ho Chi Minh City) and a centre in Barcelona, Spain, RMIT is a truly global university. RMIT also offers programs through partners in Singapore, Hong Kong, mainland China, Indonesia, Sri Lanka, Belgium, Germany, Austria and The Netherlands, and enjoys research and industry partnerships on every continent.

We are also committed to redefining our relationship in working with and supporting Aboriginal self-determination. Our goal is to achieve lasting transformation by maturing our values, culture, policy and structures in a way that embeds reconciliation in everything we do. We are changing our ways of knowing, working and being to support sustainable reconciliation and activate a relationship between Indigenous and non-Indigenous staff, students and community. Our three campuses in Melbourne (City, Brunswick and Bundoora campuses) are located on the unceded lands of the people of the Woi Wurrung and Boon Wurrung language groups of the eastern Kulin Nation

We're proud to share with you:

- The launch of our second [Reconciliation Plan for Dhumbah Goorowa– a “commitment to share” - an important step in our reconciliation journey.](#)

- RMIT University is an **Athena SWAN** member with Bronze Award accreditation and the College of Science, Engineering and Health is central to driving improvements in gender equality, diversity and inclusion, particularly in the Science, Technology, Engineering, Mathematics and Medicine (STEM) disciplines.
- RMIT was placed **10th in the 2019 Randstad Employer Brand Research Awards**, up five spots from 2018.
- We were named as an **Employer of Choice for Gender Equality** by the Workplace Gender Equality Agency three years in a row!
- We achieved **Gold Employer status for LGBTIQ** inclusion in the Australian Workplace Equality Index (AWEI) in 2018, 2019 and 2020.
- We were recognised as a **top five employer in 2018 for workplace accessibility** by the Australian Network on Disability, and awarded with **Disability Confident Recruiter Accreditation** in 2020.
- In 2020, RMIT University has become the first Australian institution to receive the **HR Excellence in Research Award**, recognized by the European Commission.

## RMIT Standings in university rankings

We are ranked **#1 in the world** for our efforts to reduce inequality in the Times Higher Education (THE) Impact Rankings 2020.

RMIT has a deep commitment to innovation, research and teaching, we are a 5-Star university under the QS Stars international evaluation system and are **223rd globally in QS World University Rankings 2021** (moved up 15 places compared to 238th last year), being also 18th in the world among universities less than 50 years old (2014 QS Top 50 Under 50 index). Additionally:

- In the 2020 QS World University Rankings by Subject, RMIT was positioned 11th in the world (highest ranked in Australia) in Art and Design, 22nd in the world (fourth highest in Australia) in Architecture and the Built Environment, and 37th in Media and Communications. We are also among the world's top 100 universities in Engineering (Civil and Structural; Electrical and Electronic; and Mechanical, Mechanical, Aeronautical and Manufacturing); Accounting and Finance; and Business and Management Studies).
- In the 2020 QS Rankings by Subject, RMIT was ranked 11th in the world and number one in the Asia Pacific for Art and Design, and 26th in Architecture and the Built Environment. RMIT is also among the world's top 100 universities in Engineering (Civil and Structural; Electrical and Electronic; and Computer Science and Information Systems); Accounting and Finance; Business and Management Studies; and Communication and Media Studies. The 2018 Shanghai Ranking's Global Ranking of Academic Subjects highlighted RMIT's strength in Engineering and Technology in particular.
- In the specialised rankings, RMIT is ranked 77th in the QS Graduate Employability Rankings 2020 and 82nd in the inaugural Times Higher Education University Impact Rankings 2019.
- RMIT has moved up 51 places in the 2021 Times Higher Education World University Rankings, strengthening its reputation as a leading global university. The University has leapt more than 150 places since 2015 and is now ranked in the **top 301-350 band**.
- RMIT continued its strong performance in the 2020 CWTS Leiden Ranking, which ranks the world's top research-intensive universities, moving up 21 places to be ranked **293rd globally** on proportion of international publications, and **ranking 225th** on proportion of top 5% publications, up 120 places from 2019.

For more information, visit [www.rmit.edu.au/about](http://www.rmit.edu.au/about)

## **STEM College**

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The STEM College holds a leading position and expertise in the science, technology, engineering, mathematics, and health (STEM) fields. We are uniquely positioned to influence and partner with industry, as never before.

STEM College is a community of exceptional STEM researchers, teachers, inventors, designers and game-changers, supported by talented professional staff. We offer higher education programs across all STEM disciplines at the Bachelor, Master and PhD levels, and ensure our students experience an education that is work-aligned and life-changing.

The College is renowned for its exemplary research in many STEM areas including advanced manufacturing and design; computing technologies; health innovation and translational medicine; nano materials and devices; and sustainable systems. Our brilliant researchers attract funding from government and industry sources.

Industry is at the heart of what we do. It ensures our research has real world impact, and our students are truly work-ready. Under the leadership of DVC STEM College & Vice President, Digital Innovation, we have established new hubs of industry-connected digital innovation and endeavour and are engaging with global STEM organisations at scale.

Our diversity and shared values empower our work, and we are proud of the College's inclusive, caring culture. We offer a safe, dynamic work environment, and support every member of our community of achieve their potential. The College appointed Victoria's first ever Dean of STEM, Diversity & Inclusion in 2020, and this role drives gender equity, diversity and inclusion strategies across the College.

STEM College employs 1,000 staff who deliver onshore and offshore programs to approximately 20,000 students.

We are here to positively impact the world and create the next generation of STEM leaders.

[www.rmit.edu.au/seh](http://www.rmit.edu.au/seh)

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## **Position Summary**

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This is a key position in a new Smartsat CRC project real time fire analytics. It proposes a satellite system of systems encompassing geostationary, polar orbiting and aerial based sensors for real time fire landscape attribution. The project will design and deliver a data and platform ecosystem to allow autonomous real time information on fire to be detected, processed and delivered to end users.

The senior research fellow will help design and implement:

- 1) a data and platform ecosystem that will enable fire surveillance in real time from geostationary, polar-orbiting and aerial platformed sensors;
- 2) fire detection algorithms for the real time surveillance of fires and their attribution (e.g. FRP, burn persistence, rate of spread etc.);
- 3) coordinate the project.

## **Reporting Line**

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Reports to: Professor Jones, Geospatial science

## **Organisational Accountabilities**

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RMIT University is committed to the health, safety and wellbeing of its staff. RMIT and its staff must comply with a range of statutory requirements, including equal opportunity, occupational health and safety, privacy and trade practice. RMIT also expects staff to comply with its policy and procedures, which relate to statutory requirements and our ways of working.

Appointees are accountable for completing training on these matters and ensuring their knowledge and the knowledge of their staff is up to date.

**Key Accountabilities**

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1. Conduct research into data assimilation / system of system approaches for fire detection
2. Disseminate research findings through conferences and high-quality publications
3. Support the broader fire analytics research group through data sharing and supervision of research scholars (PhD students) as appropriate.

**Key Selection Criteria**

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1. Expertise in research programming (e.g. Python, R, GEE) and capability to translate into utilisation contexts
2. Expertise in satellite image integration and processing, ideally for fire-related applications
3. Experience in high performance cloud computing environments for processing large datasets
4. Ability to conduct research independently and inform research directions
5. Ability to work in a team environment demonstrating strong interpersonal skills
6. Evidence of quality refereed publishing
7. Evidence of disseminating research to different target audiences through conferences and webinars to the research and broader end-user communities.
8. Capacity and interest in supervising HDR candidates

**Qualifications**

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**Mandatory:** A PhD in satellite earth observation / data assimilation

Appointment to this position is subject to passing a Working with Children check

<b>Endorsed:</b>	Signature:	<b>Approved:</b>	Signature:
	Name:		Name:
	Title:		Title:
	Date:		Date: