School of Agriculture, Food and Ecosystems Science
Faculty of Science

Fire Behaviour Analyst

POSITION NO
0060138

CLASSIFICATION
Level A

SALARY
$80,258 - $108,906 (pro rata for part-time)

SUPERANNUATION
Employer contribution of 17%

WORKING HOURS
0.6FTE

BASIS OF
EMPLOYMENT
Fixed term for up to 11 months

OTHER BENEFITS
https://about.unimelb.edu.au/careers/staff-benefits

HOW TO APPLY
Online applications are preferred. Go to http://about.unimelb.edu.au/careers, select the relevant option (‘Current Opportunities’ or ‘Jobs available to current staff’), then find the position by title or number.

CONTACT
FOR ENQUIRIES ONLY
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Please do not send your application to this contact

For information about working for the University of Melbourne, visit our website:
about.unimelb.edu.au/careers
Acknowledgement of Country

The University of Melbourne acknowledges the Traditional Owners of the unceded land on which we work, learn and live: the Wurundjeri Woi Wurrung and Bunurong peoples (Burnley, Fishermans Bend, Parkville, Southbank and Werribee campuses), the Yorta Yorta Nation (Dookie and Shepparton campuses), and the Dja Dja Wurrung people (Creswick campus).

The University also acknowledges and is grateful to the Traditional Owners, Elders and Knowledge Holders of all Indigenous nations and clans who have been instrumental in our reconciliation journey.

We recognise the unique place held by Aboriginal and Torres Strait Islander peoples as the original owners and custodians of the lands and waterways across the Australian continent, with histories of continuous connection dating back more than 60,000 years. We also acknowledge their enduring cultural practices of caring for Country.

We pay respect to Elders past, present and future, and acknowledge the importance of Indigenous knowledge in the Academy. As a community of researchers, teachers, professional staff and students we are privileged to work and learn every day with Indigenous colleagues and partners.

Position Summary

This Fire Behaviour Analyst position is expected to undertake fire behaviour research within the FLARE wildfire research group, in relation to the drivers of fire behaviour and the ability of fire agencies to predict these patterns. The primary responsibilities for this role will be to assist in the development and implementation of fire behaviour research projects. In particular:

- Involvement in experimental design
- Prepare samples/specimens and perform laboratory tests
- Development and implementation of simulation-based research
- Data analysis and development of journal publications and reports
- Liaison with fire agency staff
- Consultation and integration of project design with other University of Melbourne research groups

The successful incumbent is expected to deliver on fire behaviour research, with deliverables being the publication of manuscripts. In order to do so, the successful incumbent will work in Creswick campus of the University of Melbourne conducting laboratory and field experiments and helping with data analysis. Results of these studies will be published in leading journals in conjunction with staff from the FLARE wildfire research group.

1. Key Responsibilities

1.1 RESEARCH AND RESEARCH TRAINING

You are expected to significantly contribute towards the research effort of the team and to develop your research expertise with an increasing degree of autonomy.

- In collaboration with Senior Academic staff conduct internationally competitive research, resulting in publications in high impact journals
- Contribute to and publish academic papers and other scholarly outputs to a high academic standard in accordance with the research expectations of the University of Melbourne
Actively participate in research seminars and conferences to disseminate research findings in their area of expertise as opportunities arise

Contribute to the preparation, or where appropriate individual preparation of research proposal submissions to internal or external funding bodies as relevant.

Undertake administrative functions and obligations primarily connected with the staff member’s area of research

Contribute to, and assist in the co-supervision and training of research students at graduate and undergraduate level

Engage with relevant professional and industry bodies and stakeholders to foster collaborative partnerships

1.2 TEACHING AND LEARNING

• Contribute to teaching, training, scientific mentoring and supervision of students

• Contribute to effective supervision of junior research staff in the appointee’s area of expertise with the goal of production of publications.

1.3 LEADERSHIP AND SERVICE

• Actively participate at School meetings and contribute to planning activities or committee work to support capacity building in the School/discipline.

• Contribute to, or present research to the public to elevate public awareness of educational and scientific developments, and promote critical enquiry and public debate within the community where appropriate

• Effective demonstration and promotion of University values including diversity and inclusion and high standards of ethics and integrity

1.4 OTHER DUTIES

• Perform other tasks as requested by the supervisor or the Head of School

• Actively participate in the University Professional Development Framework

• Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in section 5.

2. Selection Criteria

2.1 ESSENTIAL

• Completion of a Bachelors or PhD in fire behaviour, fire safety, mechanical engineering, or a related field.

• Demonstrated analytical skills.

• Experience in the analysis and CFD modelling as well as designing and conducting experiments.

• A demonstrated aptitude for independent research, with a sound publication record in relevant areas, commensurate with experience and opportunities.

• Demonstrated ability to prepare research reports and manuscripts for publication
Demonstrated ability to engage with relevant professional and industry bodies and stakeholders to foster collaborative partnerships.

Excellent interpersonal and both written and oral communication skills in English.

Excellent ability to work co-operatively and positively in a multi-disciplinary research-based team environment and liaise with people from diverse backgrounds.

Demonstrated excellent organisational skills to meet deadlines and bring projects to a timely completion

Demonstrated ability to develop, administer and see through to completion appropriately designed research projects with limited supervision

### 2.2 DESIRABLE

- Research experience in fire risk, firefighting and/or lab management
- Demonstrated knowledge of fire dynamics, particularly in relation to wildfire.
- Willingness and capacity to participate in field-based research programs if required
- The ability to attract external funding through grant applications and/or support in funded joint projects with others internal or external to the university.
- Experience in assisting with supervision of students undertaking undergraduate or higher degree research projects.

### 3. Equal Opportunity, Diversity and Inclusion

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion, and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the Advancing Melbourne strategy that addresses diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people’s age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to strive for excellence and reach the targets of Advancing Melbourne.
4. **Occupational Health and Safety (OHS)**

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

https://safety.unimelb.edu.au/people/community/responsibilities-of-personnel

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

5. **Other Information**

5.1 **SCHOOL OF AGRICULTURE, FOOD AND ECOSYSTEM SCIENCES**

https://safes.unimelb.edu.au/

The School of Agriculture, Food and Ecosystem Sciences has a vision of science for flourishing environments and communities. The School brings together diverse discipline strengths to lead the development of new interdisciplinary thinking and high-impact solutions for global challenges relating to climate change, food security, healthy food systems, biodiversity conservation, sustainable forest management, invasive species, and environmentally and economically sustainable agricultural practices. Our expertise spans biophysical, social and technical sciences, and we support a large cohort of PhD students across these domains.

The School teaches a range of undergraduate and postgraduate programs, including the Bachelor of Agriculture, several majors of the Bachelor of Science and, and six Master coursework programs: Master of Agricultural Sciences, Master of Ecosystem Management and Conservation, Master of Food and Packaging Innovation, Master of Food Science, Master of Urban Horticulture and Master of Environment.

The School is situated across four University campuses, with dedicated agriculture, forest and fire, and urban horticulture facilities that enable exceptional and tailored research capacities as well as unique hands-on learning experience. The School is actively engaged in partnerships with industry, government, alumni, and the community to share knowledge and co-develop solutions to real-world problems. Join a vibrant community committed to benefiting people and nature through education and research.

5.2 **FACULTY OF SCIENCE**

https://science.unimelb.edu.au

Science at Melbourne is a global leader across fundamental and impactful scientific research and education. Science begins with curiosity, and we are dedicated to understanding the universe from the level of sub-atomic particles to the solar system. We aim to be leaders who positively impact the community locally and globally, addressing major societal issues from climate change to disease. Our discoveries help build an understanding of the world around us.

Our strength is our breadth of expertise. We are the second largest faculty in the University comprising seven schools: Agriculture, Food & Ecosystem Sciences, BioSciences, Chemistry, Geography, Earth & Atmospheric Sciences, Mathematics & Statistics, Physics and Veterinary Science.
This depth of knowledge positions the faculty to better understand, explore and impact our world and humanity, within a truly comprehensive Faculty of Science.

We have more than 150 years of experience in pioneering scientific thinking and analysis, leading to outstanding teaching and learning and offer a curriculum based on highly relevant research. We aim to train students with the knowledge and intellectual flexibility to drive the industries of tomorrow and lead across all levels of society.

We offer a range of undergraduate, honours, graduate and research degrees, enrolling more than 11,500 undergraduate and 3,750 graduate students.

We are dedicated to delivering leading transformative educational outcomes, underpinned by research, and an inclusive and inspiring student experience.

Excellence comes in many forms and diversity of thought, perspective and disciplines is essential to deliver globally leading science. At the core of our success is our focus on an inclusive environment for all in our community. Our Faculty’s focus on equity, inclusion and belonging is grounded in our endeavour to ensure we are best placed to advance research, teaching and serve diverse national and global communities.

As a Science community we sit across five of the University’s campuses – Parkville, Dookie, Burnley, Creswick and Werribee. This reach provides us with a unique perspective that is beneficial to our teaching and research. It also means we can offer our students a greater variety of learning experiences and internships to engage with industry partners to solve real-world issues.

The Faculty is custodian of the Bio21 Molecular Science and Biotechnology Institute, Melbourne Energy Institute, Melbourne Biodiversity Institute, Office for Environmental Programs, Australian Mathematical Sciences Institute (AMSI) and the Indigenous Knowledge Institute and home to numerous Centres.

5.3 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia’s premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at http://about.unimelb.edu.au/careers

5.4 ADVANCING MELBOURNE

The University’s strategic direction is grounded in its purpose. While its expression may change, our purpose is enduring: to benefit society through the transformative impact of education and research. Together, the vision and purpose inform the focus and scale of our aspirations for the coming decade.

Advancing Melbourne reflects the University’s commitment to its people, its place, and its partners. Our aspiration for 2030 is to be known as a world-leading and globally connected Australian university, with our students at the heart of everything we do.
We will offer students a distinctive and outstanding education and experience, preparing them for success as leaders, change agents and global citizens.

We will be recognised locally and globally for our leadership on matters of national and global importance, through outstanding research and scholarship and a commitment to collaboration.

We will be empowered by our sense of place and connections with communities. We will take opportunities to advance both the University and the City of Melbourne in close collaboration and synergy.

We will deliver this through building a brilliant, diverse and vibrant University community, with strong connections to those we serve.

The means for achieving these goals include the development of the University of Melbourne’s academic and professional staff and the capabilities needed to support a modern, world-class university. Those means require a commitment to ongoing financial sustainability and an ambitious infrastructure program which will reshape the campus and our contribution to the communities we engage with. This strategy, and the priorities proposed, is centred around five intersecting themes; place, community, education, discovery and global.

5.5 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at https://about.unimelb.edu.au/strategy/governance