THE UNIVERSITY OF
MELBOURNE

Department of Electrical and Electronic Engineering
School of Electrical, Mechanical and Infrastructure Engineering
Melbourne School of Engineering

Research Fellow in Optical Fibre Sensors

In line with the special measure H103/2014 provided for under section 12 of the Equal Opportunity Act 2010 (VIC), the Melbourne School of Engineering strongly encourages applications from suitably qualified female candidates.

POSITION NO	0042989
CLASSIFICATION	Research Fellow Grade 2 (Level B)
SALARY	$95,434 – $113,323 p.a.
SUPERANNUATION	Employer contribution of 9.5%
EMPLOYMENT TYPE	Full-time (fixed-term) position available for 2 years Fixed term contract type: Externally Funded The Melbourne School of Engineering is strongly committed to supporting diversity and flexibility in the workplace. Applications for part-time or other flexible working arrangements will be welcomed and will be fully considered subject to meeting the inherent requirements of the position.
OTHER BENEFITS	http://about.unimelb.edu.au/careers/working/benefits
CURRENT OCCUPANT	New
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers, select the relevant option ('Current Staff' or 'Prospective Staff'), then find the position by title or number.
CONTACT **FOR ENQUIRIES ONLY**	Professor William Shieh Tel +61 3 8344 6800 Email shiehw@unimelb.edu.au *Please do not send your application to this contact*

For information about working for the University of Melbourne, visit our websites:
about.unimelb.edu.au/careers
joining.unimelb.edu.au

Position Summary

You will work on a research project under the direction of Professor William Shieh and conduct investigation in the field of optical fibre sensors in the following areas:

(i)   discrete or distributed optical sensing system design

(ii)   optoelectronic module and subsystem design for optical fibre sensing systems, and

(iii)   test, measurement, and digital signal processing for optical and RF systems.

The position is available as part of Australian Research Council (ARC) Grant jointly with a local company.

You will conduct independent research, leading to the preparation and publication of research outcomes in conferences and journals. You will be located in the Electrical and Electronic Engineering Department, School of Engineering at the University of Melbourne. You will also spend significant amount time in the local company interacting with their Research and Development team. You will be expected to be an active member of the School, collaborating with other researchers. You may undertake small amounts of teaching and research supervision directly related to your area of research, as required.

The Melbourne School of Engineering is strongly committed to supporting diversity and flexibility in the workplace. Applications for part-time or other flexible working arrangements will be welcomed and will be fully considered subject to meeting the inherent requirements of the position.

The University plan seeks to increase the diversity of the workforce and the representation of women in areas they have been traditionally under-represented. Consistent with this, the School is seeking to increase the representation of women in the academic workforce across engineering disciplines. Under a Special Measure, under Section 12 (1) of the Equal Opportunity Act 2010 (Vic) the School is seeking to lift the representation of women from 20% in 2014 to at least 25% over the next 5 years, and strongly encourages applications from suitably qualified female candidates.

1. Selection Criteria

1.1 ESSENTIAL

- PhD degree in electrical engineering or physics
- Well-developed and an outstanding background in optical fibre sensors;
- Demonstrated capacity to communicate research concepts to technical and non-technical audiences;
- A track record of quality research in the discipline as evidenced by research publications in leading conferences and journals commensurate with opportunity;
- Excellent ability in analysing data, problem solving, excellent research records keeping skills and developing new experimental protocols;
- Demonstrated ability to perform independent research and a commitment to interdisciplinary research;
- Excellent communication and interpersonal skills, including an ability to interact with internal and external stakeholders (academic, industry and support staff), and to work collaboratively in a multi-disciplinary team environment;

- Demonstrated experience in using initiative, working with minimal supervision and ability to prioritise tasks to achieve project objectives within timelines;

1.2 DESIRABLE

- A track record of robust, high quality contributions to software projects, e.g., open source contributions;
- Experience in supervision of students and/or research assistants;
- Experience in the successful completion of ethics applications and submission of grant applications;
- Experience in a leadership role within a research team.
- Ability to structure, engage and present information clearly to various audiences.

2. Special Requirements

None

3. Key Responsibilities

3.1 RESEARCH

- Independently plan and carry out research on the nominated research project and work towards completion of the aims of the project;
- Develop effective timelines and milestones based on goals of the research programme;
- Perform data and microstructure analysis, and be responsible for qualitative and statistical analysis of research data and to communicate this information to the Chief Investigators and collaborators;
- Regularly write technical reports on the outputs of the experiments conducted, and maintain accurate and detailed records of all experiments conducted;
- Participate in preparation of manuscripts for publication in peer-reviewed journals;
- Liaise effectively with collaborators with a variety of internal and external stakeholders;
- Assist other researchers in carrying out experiments in order to work as a team and further the department's research output;
- Contribute to the development of the Department's strong research program in photonics and electronics;
- Develop independent research and apply for grants;
- Be responsible for qualitative and statistical analysis of research data and maintain accurate and detailed records of all experiments conducted;
- Develop effective timelines and milestones based on goals of the research programme;
- Perform administrative functions primarily connected with the research project, including generating written summaries of discussions, developing detailed research plans with the project investigators and writing these into a project plan, and contributing to ethics submissions.

3.2 TEACHING AND LEARNING

- Contribute to teaching, training, scientific mentoring and supervision of students;
- Supervise junior research staff in the appointee's area of expertise;
- Conduct lectures, tutorials, mark and undertake laboratory duties as required by the Department.

3.3 ENGAGEMENT

- Active participation in some outreach activities relating to research and scholarship;
- Effective liaison with external networks to foster collaborative partnerships;
- Involvement in professional activities, including consultations and referrals;
- Present experimental results at local, national and international forums;
- Attend and actively participate in departmental seminars, meetings and/or committee memberships.

3.4 SERVICE AND LEADERSHIP

- Undertake administrative duties and general laboratory duties including maintenance of the laboratory and equipment and ordering of supplies;
- Lead and contribute in the preparation and submission of competitive grant applications relating to the appointee's research program;
- Plan experimental programs and supervise the progress of research program of Research Fellows, Students and Research Assistants.

3.5 OTHER

- Perform other tasks as requested by the supervisor or the Head of the School;
- Undertake Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in Section 5.

4. 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 University's People Strategy 2015-2020 and policies that address 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.

5. 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:

http://safety.unimelb.edu.au/topics/responsibilities/

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

6. Other Information

6.1 DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

The Department of Electrical and Electronic Engineering, within the School of Electrical, Mechanical and Infrastructure Engineering, hosts a vibrant, internationally recognised research program, which receives exceptional support from industry and government. The Department has strengths in three discipline areas: ICCoN – Information, Computation and Communication Networks; PEN – Photonics, Electronics and Nanoengineering; and SSCOPE – Signals, Systems, Control, Optimisation and Power Engineering. These discipline areas represent the core ingredients of our activities across a number of research centres and laboratories.

The Department offers both PhD and Masters level research degrees, as well as the following postgraduate coursework degrees:

Professional Master of Engineering (Electrical)
www.eng.unimelb.edu.au/study/graduate/master-eng-electrical.html

Master in Telecommunications Engineering (MTE)
www.eng.unimelb.edu.au/study/graduate/master-telecomm-eng.html

The department also contributes to the Electrical Systems major in the Bachelor of Science:
www.eng.unimelb.edu.au/study/undergraduate/electrical.html

Further information about the Department can be found under www.ee.unimelb.edu.au/

6.2 MELBOURNE SCHOOL OF ENGINEERING

www.eng.unimelb.edu.au

The Melbourne School of Engineering is one of Australia's leading Engineering Schools and aims to be the school of choice for the highest performing students and research staff in Australia and within the Time Higher Education Supplement top twenty Schools of Engineering internationally by 2020.

6.3 THE UNIVERSITY OF MELBOURNE

The University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The University offers staff many benefits and prospective staff are encouraged to view the following web links:

www.unimelb.edu.au

www.growingesteem.unimelb.edu.au

www.unimelb.edu.au/careers

6.4 EQUITY AND DIVERSITY

Another key priority for the University is access and equity. The University of Melbourne is strongly committed to an admissions policy that takes the best students, regardless of financial and other disadvantage. An Access, Equity and Diversity Policy Statement, included in the University Plan, reflects this priority.

The University is committed to equal opportunity in education, employment and welfare for staff and students. Students are selected on merit and staff are selected and promoted on merit.

6.5 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 www.unimelb.edu.au/unisec/governance.html.