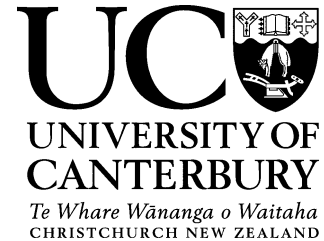


# Faculty of Engineering

Civil & Natural Resources Engineering  
69 Creyke Road, University of Canterbury  
Christchurch, New Zealand



## PhD. Positions in Fire Engineering at University of Canterbury

Fire Engineering Group at the University of Canterbury (UC), Christchurch, New Zealand (NZ), is seeking PhD. students, who are interested in pursuing fire safety research in one of the following areas:

- Building greenery system (BGS)
- Building integrated photovoltaic system (BIPV)

The aforementioned research agendas intertwine with the UN Sustainable Development Goals (SDGs), IAFSS agenda 2030 for a fire safe world, and NZ Climate Change Response (Zero Carbon) Amendment Act 2019, which aim at betterment of the society through mitigating climate change, reducing carbon emission from urbanisation, and ensuring fire-safe communities. These initiatives and innovations to reduce carbon emission and improve energy efficiency within building and construction industry, have already experienced large-scale implementation. Compared to traditional designs, some of the new designs undoubtedly alter the fire safety of a building. Therefore, there is an urgency to fill in knowledge gaps, quantify the fire risks, and develop robust design guidelines, to ensure the society is adequately protected from accidental fires arising from new sustainable-focused designs. The aforementioned research will comprise **multi-scale experiments** to investigate relevant fire phenomena, and/or **numerical analysis** to validate the prediction of developed fire engineering models, and lastly, the dissemination of the research outputs to fire engineering community, particularly the recommended mitigation strategies.

Applicants are required to identify the topic of interest for their study, refer to [Link](#) and [UC Research Profile - University of Canterbury - New Zealand](#) for more information on the research ideas. Please provide relevant credentials for review, (1) **CV** maximum 3 pages showing research experience and academic referees, (2) 1-page **motivation letter** explaining research interest, (3) **proof of graduation** e.g. transcripts from Bachelor/Masters degrees, (4) evidence of the **English Language proficiency**, and (5) draft **research proposal** (optional). Application should be addressed to Dr. Dennis Pau, [dennis.pau@canterbury.ac.nz](mailto:dennis.pau@canterbury.ac.nz)

The UC Fire Engineering Group is equipped with state-of-the-art experimental research facility including full-scale hood calorimetry and bench-scale cone calorimetry for study of fire behaviour, and thermal analysis for study of fuel's thermal degradation and decomposition. The scholarships available are for 3 years, plus tuition fees for the aforementioned research agendas or other suitable proposals. Payments start after official enrolment as a postgraduate student at UC i.e. upon arrival and commencement at the university.

If the candidate is selected for a scholarship, they will be required to go through a separate admission process managed by UC's central Admissions Office, <https://www.canterbury.ac.nz/enrol/doctoral/>. The scholarship will be conditional on meeting all criteria for admission and enrolment on a full-time basis, including English Language proficiency and visa requirements. Commencement of studies for international students shall be constrained by Immigration New Zealand regulations, visit their website, <https://www.immigration.govt.nz/> to learn about current requirements.

Applications Deadline: 31 December 2022.

## UC Hood Calorimetry



## UC Compartment Fire and Cone Experiments



## UC Thermal Analysis

