

STEM College

Water: Effective Technologies and Tools (WETT) Research Centre

Capability Summary

June 2022

Established in 2013, the WETT Centre brings together researchers with complementary knowledge and skills to develop technologies and methodologies for managing the quality and quantity of water for society's needs in a sustainable manner. We achieve this by engaging with national and international community, government and industry and conducting research to enable the provision of clean and safe water for public consumption and the environment. The Centre also supports undergraduate and postgraduate training, in preparation for future careers within the water industry. Link: [WETT Centre](#)

WETT Centre research themes

Theme 1: Water Resources Management

Systems and methods to improve quality, distribution, management practices and environmental impacts for various sources of water (potable, ground water, storm and wastewater), investigate alternative water sources, leverage digital technology towards Water 4.0.

Theme 2: Water & Wastewater Treatment

Treatment technologies and quality monitoring systems for drinking water, industrial wastewater, municipal wastewater, water recycling, desalination, concentrate management and resource recovery augmented by smart sensors (asset monitoring), IoT, remote wireless monitoring and data collection.

Theme 3: Wastewater & Biosolids

Biosolids from wastewater treatment as source of renewable energy, organic fertilizer and other applications to benefit wastewater treatment facilities and support their social licence to operate.

Joint activities with newly established RMIT- based Australian Research Council (ARC) Training Centre for the Transformation of Australia's Biosolids Resource.

Selected Research Highlights

- Distinguished Professor Andy Ball and Professor Kalpit Shah successfully secured \$6.6 Million funding for the ARC Training Centre for Transformation of Australia's Biosolids Resource for research work from 2020 to 2025.
- Professor Darryn McEvoy was awarded \$550k (2021-2023) by the UN-Habitat to work on flood defences, disaster-resistant buildings and urban climate change adaptations in Solomon Islands on the Climate Resilient Honiara Project.

- Professor Nicky Eshtiaghi and Dr Daniel Lester are working with Melbourne Water and Water Corporation Western Australia (2020-2024) on 'Efficient Pipeline Transport of Highly Concentrated Wastewater Sludge' (Funded by a ~\$630k ARC-Linkage Grant). The project will provide better understanding of the impacts of sludge rheology
- RMIT (Emeritus Professor Felicity Roddick, Professor Kalpit Shah and Associate Professor Linhua Fan), AECOM (Peter Hillis) and Cranfield University (Prof Bruce Jefferson) as a team, won the Melbourne Water Innovation Challenge from 38 international and national entries, to run a project that radically reduces GHG emissions from wastewater treatment processes.

WETT Centre Key Personnel

Director

[Professor Veeriah \(Jega\) Jegatheesan](#)
Chemical and Environmental Engineering,
STEM College, RMIT University

Deputy Director

[Professor Oliver Jones](#)
Biosciences and Food Technology,
STEM College, RMIT University

Industry Advisory Board

Dr. Melita Stevens, Chairman of the Board, Principal Scientist, Melbourne Water

Dr. Jill Fagan, Manager of Water Sector Climate Change Mitigation & Adaptation, Department of Environment, Land, Water and Planning (DELWP)

Dr. David Bergmann, Innovation and Technical Manager, South East Water

Mr. Naren Narenthiran, Senior Applied Scientist-Water Technology, Environment Protection Authority (EPA) Victoria

Dr. Casey Furlong, Senior Water Grid Oversight Policy Officer, Department of Land, Environment, Water and Planning (DELWP)

Strategic Advisor

[Emeritus Professor Felicity Roddick](#)
Chemical and Environmental Engineering,
STEM College, RMIT University

Theme 1: Water Resources Management Co-Leaders

[Dr Muhammed Bhuiyan](#)
Civil and Infrastructure Engineering,
STEM College, RMIT University

[Associate Professor Linhua Fan](#)
Chemical and Environmental Engineering,
STEM College, RMIT University

Theme 2: Water and Wastewater Management Co-Leaders

[Dr Maazuza Othman](#)
Chemical and Environmental Engineering,
STEM College, RMIT University

[Associate Professor Abhijit Date](#)
Mechanical and Automotive Engineering,
STEM College, RMIT University

Theme 3: Biosolids and Bioenergy Co-Leaders

[Professor Rajarathinam Parthasarathy](#)
Chemical and Environmental Engineering
STEM College, RMIT University

[Associate Professor Jorge Paz-Ferreiro](#)
Chemical and Environmental Engineering
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About RMIT

RMIT is a multi-sector university of technology, design and enterprise with more than 95,000 students and almost 10,000 staff globally. The University's mission is to help shape the world through research, innovation, quality teaching and engagement, and to create transformative experiences for students, getting them ready for life and work.

With strong industry connections forged over 133 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.

RMIT is redefining its relationship in working with and supporting Aboriginal self-determination. The goal is to achieve lasting transformation by maturing values, culture, policy and structures in a way that embeds reconciliation in everything the University does. RMIT is changing its ways of knowing and working to support sustainable reconciliation and activate a relationship between Indigenous and non-Indigenous people.

RMIT's three campuses in Melbourne – Melbourne City, Brunswick and Bundoora – are located on the unceded lands of the people of the Woi Wurrung and Boon Wurrung language groups of the eastern Kulin Nation.

As a global university, RMIT has two campuses and a language centre in Vietnam and a research and industry collaboration centre in Barcelona, Spain. RMIT also offers programs through partners in destinations including Singapore, Hong Kong, Sri Lanka and mainland China, with research and industry partnerships on every continent.

RMIT has continued to consolidate its reputation as one of the world's leading academic and research institutions. Released in 2020, RMIT ranked 223rd in the 2021 QS World University Rankings. The University is also ranked eighth in Australia and 39th in East Asia and the Pacific for employer reputation, and 18th globally in the Top 50 Universities Under 50 Years Old. The University also ranked 281st globally in the 2021 US News Best Global Universities rankings. RMIT also ranks in the world's top 400 in the Academic Ranking of World Universities (ARWU) and the Times Higher Education (THE) World University Rankings. RMIT ranked 10th globally in the 2020 Times Higher Education Impact Ranking

For more information, visit <https://www.rmit.edu.au/about>

CONTACT

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