

Ngaa Hua Rangahau o Te Koopuu Maania

Research and Rangahau at Wintec 2025





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Dr. Shelley Wilson
Executive Director – Academic Delivery

Executive Summary

Research at Wintec continues to strengthen and expand, supporting our core mission of keeping teaching programmes current, relevant and evidence informed.

While the number of kaimahi (staff) actively engaged in research has remained constant at 110, we saw a marked increase in dissemination in 2025, with total research outputs rising from 221 in 2024 to 311 (including 46 journal articles). This increase reflects the greater emphasis on getting findings into the hands of stakeholders. Wintec also held a successful Rangahau and Research Symposium in December last year, which was attended by other Institutes of Technology and Polytechs (ITPs) from the North Island. There were more than 200 attendees, and 118 papers delivered, at the symposium.

The researchers profiled in this report represent a broad crosssection of our institute: Business and Economics, Creative and Performing Arts, Early Childhood Education, Engineering,

Information Technology, Languages, Mātauranga Māori, Midwifery, Nursing, Pacific, Physical Sciences, Public Health, Social Sciences, and Sport and Exercise Science. We also welcomed visiting research scholars from Jinzhou Medical University (China) and Zuyd University of Applied Sciences (the Netherlands), furthering international collaboration and exchange.

Wintec remains committed to supporting Māori and Pacific research through targeted funding and tailored support for emerging researchers. Our Māori Achievement Unit and the Oire Pacific team continue to play a central role in enabling research activity, advising on Rangahau and Ranga'ao practice, and ensuring culturally grounded approaches are embedded across our work.

“Wintec remains committed to supporting Māori and Pacific research through targeted funding and tailored support”.





Wintec Research Office Team
L to R: Dr. Jonathon Ryan, Aimee Pilkington and Dr. Peter Maulder

Research Office

The current Research Office team has been in place since May 2022: Aimee Pilkington (Research Office Coordinator), Dr. Peter Maulder (Kaihautū Rangahau), and Dr. Jonathon Ryan (Research Operations Manager). 2025 was a big year, and several achievements deserve recognition.

We began the year by launching two new systems – the Individual Researcher Spotlight and the Programme Research Spotlight – modelled on successful practice at Unitec. These tools strengthen our ability to monitor research activity in accordance with the expectations of external accreditation bodies, including NZQA and the New Zealand Nursing Council. Thanks go to Marcus Williams and Arun Deo at Unitec for their generous advice in establishing these systems, and to Peter for building our Wintec system.

We ended the year on an equally strong note, hosting the North Island edition of the ITP Symposium to great success (see pages 8-9), and welcoming international scholar Fiona Fang Chang from Jinzhou Medical University in China. At the time, Fiona was nearing the completion of her PhD in sports medicine. She is a former team doctor for the Chinese national swimming team and currently teaches sports medicine, rehabilitative evaluation and sports physiology.

In the months between those milestones, the year was shaped by a series of deliberate, incremental improvements to how we operate. These further our core goals of supporting researchers and strengthening Wintec's research culture and reputation.

Key among these were refinements to our funding application and approval processes, the phased re-launch of international conference opportunities, and strong, sustained engagement through the Research Leader Forum. We also increased the regularity of our meetings with senior leaders across the institution, focused on ensuring better alignment with Wintec's strategic direction.

Researcher capability development remains a priority, and 2025 brought some rewarding work in this space. Collaborating with the Initial Teaching Education team and colleagues across the Centre for Education and Foundation Pathways has been a particular highlight. Their energy and commitment to developing as researchers is inspiring. The research writing retreat hosted by Gail Pittaway was among the best we have run, and our fortnightly Research Newsletter (thank you Aimee) continues to attract strong readership as a valued source of information across the institution.

As we move into 2026, the foundations are in place for another year of growth. The systems, relationships, and capabilities built over the past three years position Wintec's research community well and the Research Office remains committed to the work of supporting every researcher who is part of that story.



Dr. Nick Braae
School of Media Arts – Chair

Research Leader Forum

Wintec's research support system includes a Research Leader (RL) in each of our teaching centres. The RL role encompasses a range of mentoring, advocacy and reporting activities.

RLs meet monthly as part of the Research Leaders Forum to discuss developments and share initiatives. The Forum is chaired by Dr. Nick Braae of the School of Media Arts.

Research Leaders during 2025 were:

- **Dr. Nick Braae**
School of Media Arts – Chair
- **Dr. Patricia McClunie-Trust**
Centre for Health and Social Practice
- **Dr. Khadijehbeigom (Sanaz) Ghoreishi**
Centre for Applied Science and Primary Industries
- **Hami Te Momo**
Centre for Information Technology
- **Dr. Sujani Thrikawala**
Centre for Business Enterprise
- **Dr. Anthea Fester**
Centre for Languages
- **Dr. Elisapesi Havea**
Centre for Education and Foundation Pathways
- **Dr. Russ Best**
Centre for Sports Science and Human Performance
- **Dr. Shafiqur Tito**
Centre for Engineering and Industrial Design

Other members of the Forum in 2025 were:

- **Dr. Jonathon Ryan**
Research Office
- **Dr. Peter Maulder**
Research Office, Kaihautū Rangahau
- **Rachel Axcell**
Liaison Librarian

The role of Research Leader encompasses a range of mentoring, advocacy and reporting activities.



ITP Rangahau and Research Symposium

Wintec hosted the North Island edition of the ITP Rangahau and Research Symposium on 2-3 December 2025 at the City Campus, with keynotes in the Atrium, parallel presentation streams in A Block, and social events in the Gallagher Hub.

The Wintec event was part of a week-long national series that also included the South Island symposium hosted by Otago Polytechnic, a nationwide one-day Virtual Symposium chaired by James Savage (SIT), and a Pacific Stream hosted by Unitec. Together, these brought into conversation researchers from across the full spectrum of ITP sector research, providing our primary vehicle for cross-institutional and cross-disciplinary dissemination and collaboration.

In total, the Wintec event hosted 118 presentations and posters, including 66 Wintec kaimahi (staff) projects and 8 ākonga (student) projects. Strong delegations attended from Unitec and MIT (Auckland), Toi Ohomai (Bay of Plenty), and EIT (Hawke's Bay), with smaller contingents traveling from as far afield as Otago Polytechnic and NMIT (Nelson-Marlborough).

The event was opened with a mihi whakatau by Wintec Kaumātua Tame Pokaia, followed by addresses from Dr Shelley Wilson and from Jamie Smiler, Te Pūkenga outgoing Director of Rangahau and Research.

Ryan Overmayer from the Centre for Sport Science and Human Performance served as MC across both days with characteristic energy and humour.

The symposium was bookended by keynote addresses from Wintec's two most senior researchers. Dr. Peter Maulder opened proceedings by inviting researchers to see themselves differently – not as data-gatherers chasing outputs, but as evolving leaders on a deeply human journey. Drawing on the metaphor of the wolf, Peter traced the arc from the Lone Wolf's fierce independence through the Pack Wolf's collective intelligence, the Werewolf's transformative disruption, and finally the Guardian Wolf's stewardship and legacy. Woven through with pūrākau, humour, and wānanga-style reflection, the session challenged attendees to identify their own inner wolf and to recognise that the best researchers know not just how to hunt, but how to protect, mentor, and build something that lasts.



“The symposium’s most rewarding outcome may prove to be the connections made across institutions”.



Dr. Matthew Bannister opened day two with an equally thought-provoking address, using the real-life disappearance of Tom Phillips – and the public fascination it ignited – as a lens through which to examine one of New Zealand’s most enduring cultural myths: the bloke who goes bush. Drawing on his research into Taika Waititi’s *Hunt for the Wilderpeople*, Matthew explored the uneasy line between fiction and reality in the New Zealand imagination, asking how deeply settler identity is bound up in wilderness, escape, and reinvention. His presentation raised sharp questions about what it means when a Māori filmmaker tells, and gently upends, a story that Pākehā audiences have long claimed as their own.

Across the two days, the symposium showcased the breadth and vitality of research across the ITP sector. Several strong themes emerged: questions of identity, equity, and indigeneity, from Te Tiriti-led leadership to the experiences of Māori, Pasifika, migrant, and neurodiverse learners; the opportunities and risks of rapid technological change, with generative AI, digital twins, and AI-assisted learning tools all attracting serious attention; and

environmental and sustainability concerns ranging from wetland restoration and embodied carbon in construction to wastewater treatment and the chemical footprint of imported clothing. Across these varied conversations, a common orientation prevailed of research conducted in direct service of communities, learners, industries, and the natural world.

The symposium’s most rewarding outcome may prove to be the connections made across institutions, already visible in new research collaborations taking shape. These grew naturally from the shared spaces built into the programme, the end-of-day networking event and the rhythm of breaks throughout.

The conference organising committee was Aimee Pilkington, Dr. Jonathon Ryan, and Dr. Peter Maulder. Sincere thanks are due to Dr. James Savage, Dr. Shelley Wilson, Rachel Axcell, Dr. TeUrikore Biddle, Melia Kape, Ryan Overmayer, and Jamie Smiler for their support, and to the session chairs, abstract reviewers, and the Wintec Events, Marketing, and Facilities teams, without whom the event would not have been possible.



**Best Design Awards
Finalist 2025**

Notable Achievements

Two Wintec books were finalists at the 2025 Designers Institute of New Zealand Best Design Awards:

Upon Returning, edited by David Sidwell and designed by Luke McConnell, was a finalist in the Editorial and Books category and featured in Issue 23 of GSM Magazine. This beautifully designed book was created in collaboration with eight composers from the Waikato, who each returned to complete an unfinished piano piece: bestawards.co.nz/graphic-editorial-and-books/mahi-tahi-studio/upon-returning-a-collection-of-piano-pieces/

The book Hear Us Out, developed from a course taught by Luke McConnell and Jordan Foster, was a finalist in the Student and Academic Social Good category. Design students asked their elders "If you could give one piece of advice to the people in your city, what would it be?" and were then tasked with creating a striking typographic poster to visually represent this advice. 193 students and posters from seven different countries participated. bestawards.co.nz/social-good-award/student-social-good/wintec-1/hear-us-out/

An article co-authored by Dr. Andre McLachlan was published in the prestigious journal Nature Reviews Neuroscience, which is part of the Springer Nature series, and widely considered one of the most influential in the field of neuroscience (ranked 2nd of 111 journals in Neuroscience by Scopus). The article, 'Indigenous representation in neuroscience

scholarship, teaching and care', resulted from a collaboration with experts from Canada, Australia, France, Sweden, Netherlands, Norway and Sweden, emphasises the importance of integrating Indigenous knowledge systems into neuroscience to address inequities and diversify approaches to research, education and clinical care. Articles published in this journal often achieve substantial impact, shaping theoretical debates and helping set research agendas. Publication in this journal signals strong recognition and expertise within the field.

Among a number of media appearances by Wintec researchers, Dr. Matthew Bannister appeared in the documentary 'Anchor Me: The Don McGlashan Story', which screened at the New Zealand International Film Festival and elsewhere. Matthew was also interviewed by The Spin Off in a story about themes in NZ fiction and the mixed public reaction to the Tom Phillips case. Dr. Russ Best was interviewed for the German-language magazine Der Spiegel for his work on the use of menthol as an aid in sports performance, continuing a line of work that was developed in his PhD thesis.

We congratulate the following for completing their PhD in 2025:

- **Dr. Anuradha Madurapperumage**
Senior Academic Staff Member in the Centre for Information Technology. Graduated from the University of Waikato.



Notable Departures

- **Dr. Kesava Kovanur Sampath**
Formerly a Principal Academic Staff Member in the physiotherapy team, is now Associate Professor at the School of Health and Biomedical Sciences at RMIT University, Melbourne. Kesava retains a position as Research Associate with Wintec
- **Dr. Suzie Belcher**
Formerly a Senior Academic Staff Member in the physiotherapy team, is now a lecturer in physiotherapy at the University of Auckland
- **Dr. Ninitha Koya**
Formerly a Co-Research Leader in the Centre for Business Enterprise, is now a lecturer in the Management School at the University of Waikato
- **Dr. Mohammad Al-Rawi**
Formerly the Research Leader for the Centre for Engineering and Industrial Design, is now a lecturer at Charles Sturt University, Bathurst, Australia
- **Dr. Gail Pittaway**
Formerly a Principal Academic Staff Member in the Communications team in the School of Media Arts, has retired but continues to host Wintec's research writing retreats
- **Leni Lolohea**
Formerly Pacific Research Leader, has joined the New Zealand Police Nga Pirihimana O Aotearoa



Dr. Peter Maulder
Kaihautū Rangahau
Research Office Senior Strategist

Rangahau

Rangahau is an inquiry undertaken by Māori, with Māori, for Māori, as Māori; in pursuit of conveying a Māori empirical perspective of the world. Rangahau enhances a Māori worldview that endorses Māori solutions and ways of knowing by empowering Māori people, voice, and knowledge.

Growing the visibility of Rangahau

While the annual Te Pūkāea: Rangahau Hui Taumata was postponed during 2025, Wintec continued its commitment to elevating Māori-led research by hosting the ITP Rangahau and Research Symposium. The symposium included a dedicated Te Ao Take Take stream, creating space for projects grounded in Rangahau, mātauranga Māori, and Indigenous worldviews across education, health, social practice, and community development.

The symposium opened with a keynote from Dr. Peter Maulder, Wintec Kaihautū Rangahau and Research Office Senior Strategist, entitled The Research and Rangahau Journey: From Lone Wolf to Guardian Wolf. His address explored the evolution of kairangahau through mana motuhake (independence), mahi tahi (collaboration), whakaumu (transformation), and kaitiakitanga (stewardship), reinforcing the collective responsibility of research to serve communities and future generations. Dr. Maulder also chaired the Te Ao Take Take stream, facilitating rich discussion throughout the conference.

Rangahau showcased through the ITP Rangahau and Research Symposium

Courageous leadership through Te Tiriti

In The Silence That Speaks, Dr. TeUrikore Biddle challenged institutions to move beyond symbolic commitments to Te Tiriti o Waitangi by confronting the “silence in the room” when inequity is recognised but left unaddressed. Drawing on her expertise in leadership, mātauranga Māori and educational equity, her work calls for courageous leadership and shared accountability to create transformative change.

Reimagining partnership in counselling practice

Through the development of the Takitoru framework, Dr. Rawiri Waretini-Karena presented an innovative model for Te Tiriti-informed counselling and social services practice. By weaving kaupapa Māori philosophies alongside Western approaches, Takitoru promotes authentic partnership, cultural humility, and mana-enhancing relationships that strengthen outcomes for whānau and communities.



Rangahau: Empowering Māori knowledge, leadership and transformation.

Strengthening belonging through noho marae

Hamiora Te Momo explored how noho marae experiences contribute to the development of ākonga-centred learning communities within tertiary education. His work highlights the importance of culturally grounded learning environments in fostering belonging, identity, and learner engagement.

Embedding mātauranga Māori in health education

Recognising the growing expectations placed on health professionals to engage meaningfully with mātauranga Māori, Alroy Walker reviewed curriculum integration across Wintec's Centre for Health and Social Practice. His research identifies opportunities to strengthen consistency through collaborative curriculum design involving mana whenua and specialist expertise.

Exploring Rongoā in nursing education

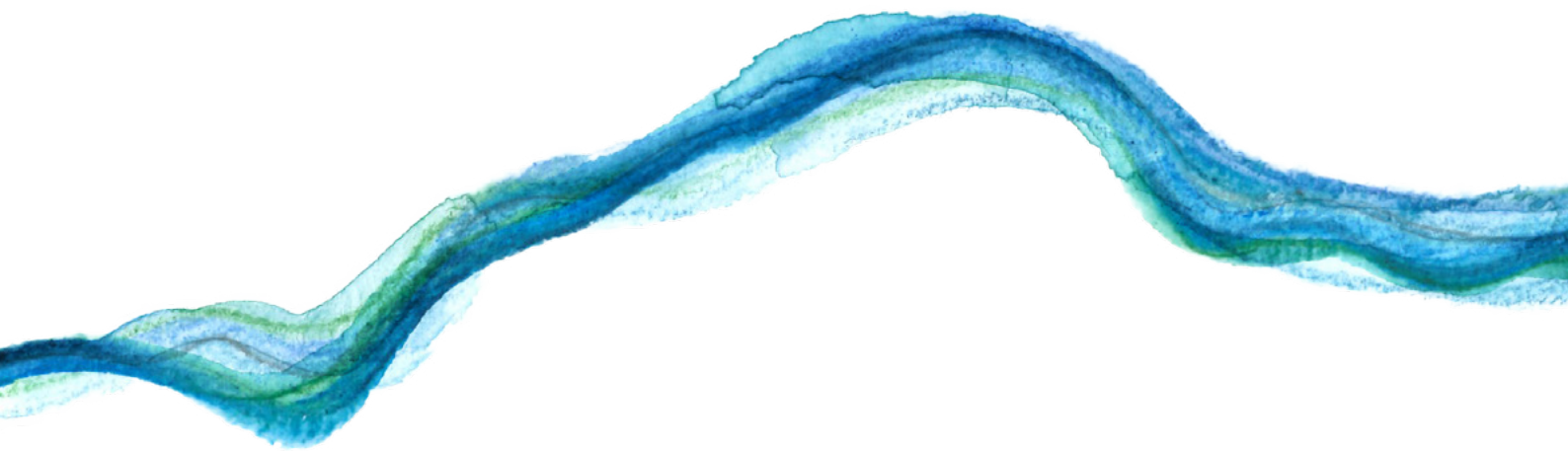
In a collaborative project, Nesca Bowlin and Jenny Song investigated student nurses' attitudes, beliefs, and clinical experiences relating to Rongoā Māori.

Their research contributes to the ongoing conversation about culturally responsive healthcare education and the place of indigenous healing knowledge within professional nursing practice.

Transdisciplinary approaches to mātauranga Māori

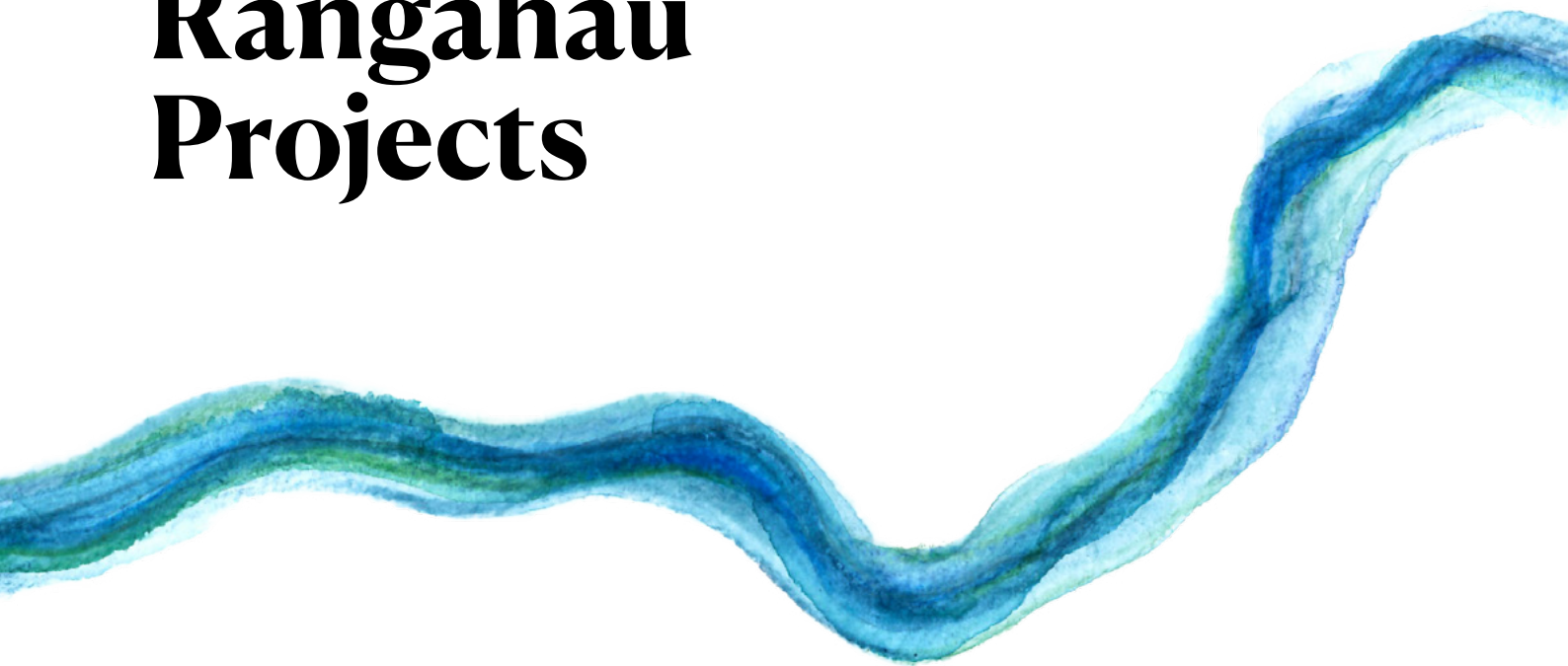
Shanan Miles, alongside Dr. Paul Ewart, examined whether transdisciplinary research methodologies can provide the critical analysis needed to assess mātauranga Māori within outdoor pursuits. The project reflects Shanan's wider research into identifying and understanding mātauranga Māori within outdoor instructor training in Aotearoa New Zealand and demonstrates the value of integrating Indigenous knowledge systems into emerging fields of inquiry.

Together, these projects illustrate the breadth and depth of Rangahau taking place at Wintec. Spanning leadership, education, health, counselling, and outdoor learning, they demonstrate a shared commitment to advancing mātauranga Māori, strengthening Te Tiriti-informed practice, and creating research that contributes to equitable and transformative outcomes for whānau, hapū, iwi, and communities across Aotearoa.





Rangahau Projects





Dr. Rawiri Waretini-Karena
Academic Staff Member –
Centre for Health and Social Practice

Rangahau Projects

Kairangahau Profile: Dr. Rawiri Waretini-Karena

Dr. Rawiri Waretini-Karena is an Academic Staff Member in the Centre for Health and Social Practice (CHASP). Dr. Waretini-Karena's research centres on the development of Te Tiriti informed counselling and social service frameworks that advance indigenous liberation, healing, and wellbeing. His work integrates Māori knowledge systems, lived experience, and critical analysis of colonial structures to reshape how counselling and social services are taught and practiced.

Across multiple publications and applied projects, Rawiri develops culturally grounded frameworks that move beyond bicultural models toward approaches that honour Te Tiriti o Waitangi, whakapapa, and mana-enhancing practice.

At its core, this research rethinks counselling and social services so they genuinely work for Māori and other Indigenous peoples, challenging Western-dominated models of care and replacing them with approaches grounded in Māori values, relationships, and ways of knowing. Rather than positioning practitioners as experts, it emphasises relational practice – healing through connection, whakawhanaungatanga, the restoration of mana, and addressing the intergenerational trauma caused by colonisation.

This focus comes from both professional and lived experience. Working within counselling, education, and state care survivor-led spaces exposed the limitations of existing systems – particularly how they fail to respond to trauma

rooted in colonisation, state violence, and disconnection from culture. That gap became the driving force behind developing new frameworks that are both academically rigorous and practically transformative.

The current body of work spans several interconnected projects that collectively build a Te Tiriti informed counselling paradigm. Central to this is Te Puna Manaaki – Ngā Tikanga Haumanu, a 39,000-word practice text outlining Indigenous healing approaches, alongside the Waretini (Whakawhanaungatanga) Framework, which centres relational connection as the foundation of healing practice. Rawiri is also developing the AI Te Tiriti Informed Counselling Framework (Health Research Council proposal), which explores how emerging technologies can align with Indigenous ethics. Further contributions include chapters addressing colonial law, dominant discourses, and intergenerational trauma, and a Māori theoretical approach to Te Tiriti o Waitangi.



How can counselling and social services be transformed to genuinely reflect Te Tiriti obligations while addressing the enduring impacts of colonisation?

The central research problem asks: how can counselling and social services be transformed to genuinely reflect Te Tiriti obligations while addressing the enduring impacts of colonisation? Methodologically, this work draws on Kaupapa Māori research, critical theory, and practice-based evidence. A distinctive feature is the integration of lived experience—particularly from state care survivors—into theory-building, ensuring the frameworks are not only conceptual but grounded in real-world application.

The potential impact is both systemic and practical. These frameworks aim to reshape counselling education, influence policy, and provide tools for practitioners working with whānau experiencing trauma. Progress to date includes multiple manuscripts ready for publication in 2026, alongside applied programme development including the Mana-ā-Tāne & Mana-ā-Wāhine trauma-to-resilience workshop manual. The significance lies in offering cohesive, Indigenous-led alternatives that can be implemented across education, social services, and community settings.

The next phase of this research involves implementation, evaluation, and wider dissemination. This includes piloting the developed frameworks in educational and community settings, progressing the Aī Te Tiriti informed counselling model from proof of concept to applied practice, and completing the Mana-ā-Tāne & Mana-ā-Wāhine programme manual.

Looking ahead, the research will continue to evolve toward embedding Indigenous frameworks within systems that have historically excluded them—particularly through policy influence, practitioner training, and digital innovation. The long-term vision is to normalise Te Tiriti informed practice as the standard rather than the alternative.

This work is driven by a commitment to healing—restoring mana, strengthening whakapapa connections, and ensuring future generations are not bound by the unresolved trauma of the past, but are supported to thrive within systems that honour who they are.



Shanan Miles
Principal Academic Staff Member –
Centre for Sport Science and Human
Performance

Emerging Kairangahau Spotlight: Shanán Miles

Shanan Miles (Ngāti Pāhauwera) is an outdoor sector leader, auditor, technical expert, educator, and researcher whose work sits at the intersection of adventure activity safety, bicultural organisational transformation, and Mātauranga Māori-centred professional practice.

As an industry contractor and Principal Academic Staff Member at Wintec, Miles has spent more than two decades shaping Aotearoa's outdoor sector through programme development, moderation, governance leadership, and cultural capability building. His current research documents and analyses the New Zealand Outdoor Instructors Association's (NZOIA) bicultural integration journey, contributing one of the first sector-wide accounts of organisational change grounded in Māori frameworks such as Atua-Kawa-Tikanga-Ritenga.

Miles describes his research focus as an exploration of how outdoor organisations meaningfully embed Māori knowledge, values, and relational practices into qualification structures, assessment systems, and professional learning pathways. His interest in this area emerged from years of outdoor instruction, auditing, and teaching, where he observed both the sector's aspirations and its persistent structural gaps.

As a longstanding NZOIA member, he acknowledges his own positionality and bias—his hopes for the industry's future are shaped by deep professional investment, lived experience, and a commitment to ethical, Māori-centred practice.

His current research examines NZOIA's bicultural development across a multi-year timeline, drawing on organisational documents, workshop findings, member feedback, and governance level decision making. Using a design thinking orientation and kaupapa Māori principles, Miles analyses how initiatives such as Māori kaupapa implementation, qualification redevelopment, and sector-wide PLD have shifted understandings of cultural responsibility. His methodology blends document analysis, narrative synthesis, and thematic interpretation, with particular attention to Māori organisational frameworks and emerging concepts such as Pūkengatanga (excellence in practice). This approach is distinctive for its combination of insider knowledge, critical reflexivity, and relational accountability.



Recent progress includes a comprehensive findings chapter that traces NZOIA's actions, sector engagement, and cultural learning over time. These findings highlight both the momentum generated through collaborative workshops and the structural challenges that remain for the outdoor sector as it seeks to honour Te Tiriti o Waitangi in meaningful, operational ways. The work contributes to national conversations about bicultural transformation in professional bodies and has already informed internal planning, PLD design, and qualification redevelopment discussions.

Looking ahead, Miles intends to extend this research into future models of Māori-centred qualification design, assessment criteria grounded in tikanga, and sector-wide professional development pathways that strengthen cultural capability. He also aims to deepen engagement with mana whenua and Māori knowledge holders to support place-based, relationally grounded practice. Motivated by a desire to see the outdoor sector move beyond compliance toward genuine cultural partnership, Miles envisions his research evolving into a broader programme of work on Māori conceptions of excellence, organisational transformation, and the future of outdoor instruction in Aotearoa.

Miles' work contributes to national conversations about bicultural transformation in professional bodies.



Dr. 'Elisapesi Havea
Centre Research Leader
Principal Academic Staff Member –
Centre for Education and Foundational
Pathways

Ranga'ao Projects

Dr. 'Elisapesi Havea

Dr. 'Elisapesi Havea is a Principal Academic Staff Member in the Centre for Education and Foundational Pathways (CEFP). Dr. Havea's current research focuses on Māori and Pasifika student success within tertiary foundation education, with a particular interest in culturally responsive teaching, relational pedagogy, and student wellbeing.

While she also has research expertise in climate change education and climate-induced migration, her present project reflects a strong commitment to improving educational outcomes for Māori and Pasifika learners from the earliest stages of their tertiary journey. Her interest in this area has been shaped through years of teaching and mentoring foundation students, where she observed the importance of cultural identity, belonging, and meaningful relationships in influencing student engagement and achievement.

Together with two fellow researchers, Dr. Havea is leading a collaborative research project exploring the lived experiences of Māori and Pacific students enrolled in Te Ara Pūtake, the Foundation Programme at Wintec.

The study seeks to understand how students experience the transition to tertiary education academically, socially, and culturally, and how these experiences influence their confidence, wellbeing, and sense of belonging. Foundation programmes are often the first point of entry into tertiary education, making them a critical stage for identifying the supports students need to succeed in Bachelor and higher-level study. The research highlights the importance of understanding student experiences early, so that culturally responsive strategies can be developed to address barriers before they become long-term challenges. The project aims to contribute practical, student-informed recommendations that may strengthen curriculum design, learner support, and teaching practices within foundation and tertiary education more broadly.



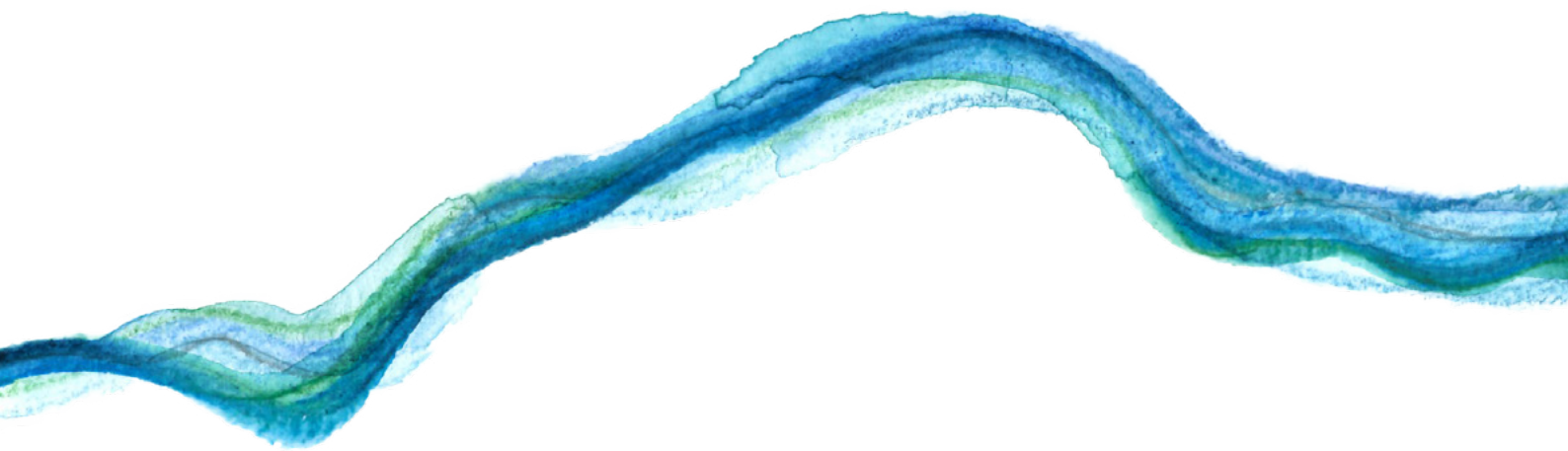
Talanoa research practice is grounded in storytelling, reciprocity, empathy, and relational accountability...

A distinctive feature of this research is the use of Talanoa as the primary methodology. Talanoa is a Pacific indigenous research approach grounded in storytelling, reciprocity, empathy, and relational accountability, creating culturally safe spaces where participants are encouraged to share their stories openly and in ways that are meaningful to them. The project includes both talanoa fakatautaha (individual talanoa) and talanoa fakakulupu (group talanoa), allowing participants to engage in one-on-one and collective conversations. Through this approach, participants become co-constructors of knowledge rather than simply subjects of research. The methodology aligns strongly with Māori and Pacific worldviews and centres values such as faka'apa'apa (respect), tauhi vā (nurturing relationships), humility, and care.

The project is currently in the data collection phase. Three participant cohorts have been identified: current Te Ara Pūtaka

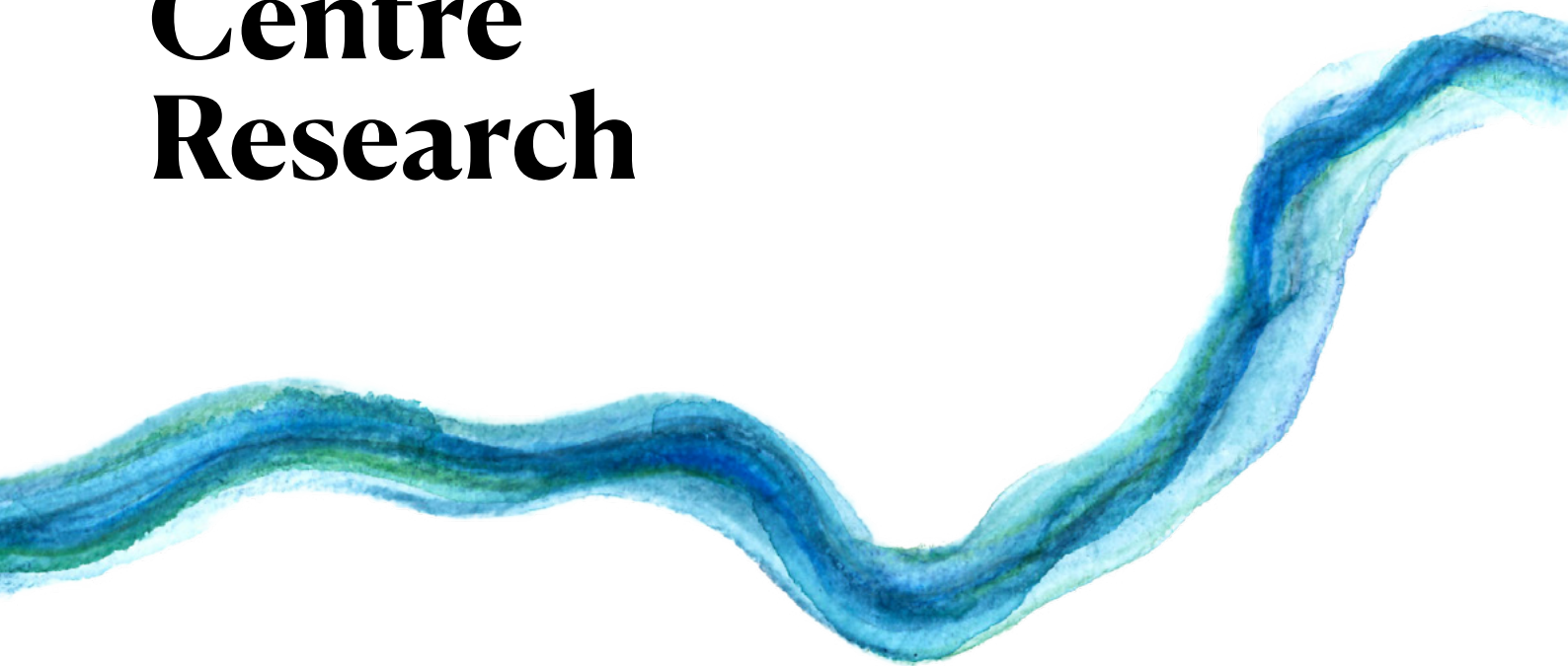
students, graduates of the programme, and students who withdrew before completion. To date, talanoa sessions have been completed with one cohort, with the remaining groups to follow over the coming weeks. These insights will contribute to a richer understanding of Māori and Pacific learner experiences across different stages of foundation education.

Looking ahead, Dr. Havea hopes this research will continue to influence culturally responsive practice within tertiary education and contribute to broader discussions around equity and Indigenous-centred approaches to teaching and learning. She sees the project evolving into future research focused on mentoring, belonging, and culturally grounded learner support for Māori and Pacific students across different educational contexts. Her work is motivated by a commitment to ensuring that Māori and Pacific learners feel seen, valued, and supported throughout their educational journeys.





Centre Research





Dr. Sanaz Ghoreishi
Centre Research Leader
Principal Academic Staff Member –
Centre for Applied Science and Primary
Industries

Centre for Applied Science and Primary Industries: Report

The Centre for Applied Science and Primary Industries focuses on applied science research across food technology, microbiology, environmental science, and earth science. It addresses key challenges in food safety, sustainable resource management, and ecosystem monitoring.

Projects include product innovation and shelf-life testing, advanced water treatment technologies, and ecological monitoring using acoustic and field methods. Research also extends to planetary environments, explored through numerical modelling. Working closely with industry partners, the Centre delivers practical solutions that benefit the food, environmental, and technology sectors. The Centre also supports communities through improved sustainability outcomes, while providing students with hands-on, industry-linked research experience.

Research Impact Story

In 2025, a key project investigated the use of pyroligneous acid (wood vinegar) to manage invasive bird populations at the Rotopiko Wetland Complex. The goal was to reduce roosting by house sparrows and starlings, whose waste was altering soil nutrients and threatening native plant communities. Using diffusion bottles, the study tested whether this organic byproduct could serve as a safe and effective bird deterrent. Results showed a reduction in bird activity of up to 15% during early application.

This work informed Hamilton City Council's adoption of a similar deterrent approach at Waiwhakareke Natural Heritage Park and Hamilton Zoo. From an applied perspective, the method offers conservation managers a practical and low-impact strategy for reducing pest bird roosting pressure. This supports ecosystem function and habitat quality while avoiding the ecological risks and community concerns associated with lethal control methods.

Centre Research Connections

In 2025, the centre's research delivered practical outcomes through strong collaboration with partners at the University of Waikato, University of Auckland, NIWA, AgResearch, Auckland University of Technology, Hamilton City Council, Waikato Regional Council, and Coromandel Community Trust. Environmental research, undertaken in collaboration with NIWA, advanced sustainable wastewater treatment, particularly electrocoagulation to improve effluent quality prior to discharge into receiving ecosystems.



Students play an important role, contributing to research projects while gaining hands-on experience that prepares them for future careers.

Ecological projects with Hamilton City Council, Waikato Regional Council, and Coromandel Community Trust focused on biodiversity management, including the development of non-lethal bird deterrent methods and the application of acoustic technologies for rat monitoring and management. Food and microbiology research supported product development, sensory analysis, and shelf-life optimisation, with meat-based innovation undertaken in collaboration with Auckland University of Technology and AgResearch. Students played an important role across these projects, gaining hands-on experience through applied research while contributing to meaningful outcomes.

Looking Ahead

In 2026, Applied Science research will continue to focus on practical, real-world solutions across

food technology, microbiology, environmental science, ecology, and water treatment. The work remains strongly industry-connected, ensuring research delivers outcomes that are useful to communities and partners. A key priority is completing and publishing research from recent Bachelor of Technology (Level 7) projects, with several manuscripts currently being finalised and submissions planned for the first half of 2026. These are expected to generate journal publications and conference presentations, strengthening the programme's research profile. New research ideas are also being developed, both independently and in collaboration with existing partners. Students will continue to play an important role, contributing to projects while gaining hands-on experience that prepares them for future careers.



Dr. Rhys Jones
Senior Academic Staff Member –
Centre for Applied Science and Primary
Industries

Researcher Profile: Dr. Rhys Jones

Encouraging an ecological system to create a desired outcome has been a central theme of Dr. Rhys Jones's research since he began as a food microbiologist.

In an early study he described how different species of lactic acid bacteria ('good bugs') grow and replace each other in packaged meat during storage. Lactic acid bacteria are useful as they can slow the growth of pathogens and spoilage bacteria that might also be present. Rhys eventually took up PhD studies examining how meat products could be 'bio-preserved' using 'good bugs' – in other words, how the ecology of stored meat could be manipulated to encourage the growth of innocuous bacteria that suppress spoilage and disease. A highlight of his PhD studies was working at INRA in France as part of a cotutelle with the University of Paris.

Complementing his microbiology research, Rhys is also interested in how wild spaces can be improved in ways that allow native species to thrive. He has had the privilege of visiting Suvarrow atoll (northern Cook Islands) to survey seabird populations as part of a United Nations Development Programme initiative, and for several years has been a volunteer pest control worker with Habitat Tuatēawa in the Northern Coromandel.

During a visit to London, he attended an exhibition given by the renowned sound engineer Bernie Krause, and was impressed by how different animal species could be identified by analysing the recorded 'biophony' (sounds) generated by forests and other wild spaces. Around this time the Predator Free initiative was launched in New Zealand, and Rhys wondered whether analysing the sounds of our forests might offer an easier way to quantify rat and possum populations compared to the laborious methods normally used.

This led to a collaboration with Kent McPherson and Paul Nelson (Wintec School of Media Arts) to record a Coromandel forest to see what species could be identified by analysing the audio spectra. The results suggested that rats and possums may be too quiet to detect easily; however, iconic species such as tui, ruru and kaka produced impressive recordings and this allowed the team to create a visually engaging installation, presented at the Ramp Gallery in December 2020, aimed at raising public awareness of forest ecosystems.



Rhys is interested in how wild spaces can be improved in ways that allow native species to thrive.

On the subject of rats, overseas research has shown that they communicate ultrasonically. In particular, 'happy rats' emit signals at a frequency of around 50 kHz, and when other rats hear the sound they are attracted to its source. This suggested to Dr Jones that, rather than trying to record rat sounds directly, playing 'happy rat' sounds might attract forest rats to the source of the signal and therefore to any traps placed nearby. This would benefit pest controllers by reducing the number of traps needed, lowering both labour costs and impact on public spaces. A study was conducted in which a 'happy rat' vocalisation was played

at two forest locations over several months. Results indicated that more rats were indeed captured by traps placed at sites where the vocalisation was played compared to sites where it was not played. These results were published in the NZ Journal of Ecology and have received positive media attention. Looking ahead, a planned study will augment an existing trapping programme with ultrasound to assess whether trapping efficiency is enhanced. There may also be scope for engineers to design a new type of re-setting rat trap incorporating an ultrasound generator capable of running for several weeks.



Photo credit: Brett Jordan





Funded through the Wintec Research Contestable Fund 2025, this colourimeter has played a key role in assessing colour and quality in Chlorella cookies, Kanuka flavoured beef jerky and Maldivian Bondi products while supporting the development of colour-based indicators of Cheddar cheese maturity.



Chathurika Samarakoon
Principal Academic Staff Member –
Centre for Applied Science and Primary
Industries

Emerging Researcher Spotlight: Chathurika Samarakoon

Chathurika Samarakoon is a food scientist and sensory researcher whose work focuses on sensory science, flavour chemistry, consumer behaviour, and food product innovation.

Her research interests include meat and dairy quality, shelf-life evaluation, functional foods, alternative proteins, and sustainable food systems. She has collaborated with industry and academic partners including BSI-AgResearch, Fonterra, and University of Auckland on projects involving flavour analysis, consumer perception, rapid analytical technologies, and product development. Her PhD research focuses on characterising fresh cooked quality signatures in cooked ready meals using sensory, physico-chemical and metabolomic approaches.

In 2025, Chathurika contributed to several industry and international research projects focused on food

quality, flavour optimisation, and value-added food innovation. Her work on determinants of purchase intention for meat-based ready meals was published in the journal Foods. She also collaborated on industry projects investigating cheese maturity markers using GC-MS and colourimetry, the development and consumer evaluation of Chlorella-fortified gluten-free cookies, and the physico-chemical and sensory characterisation of Kanuka-smoked beef jerky. Internationally, she contributed to the “From Tradition to Innovation” project with Maldivian Bondi processors, focusing on the characterisation and value addition of traditional Bondi products.

Chathurika’s work focuses on sensory science, flavour chemistry, consumer behaviour, and food product innovation.



Dr. Sujani Thrikawala
Centre Research Leader
Senior Academic Staff Member –
Centre for Business and Enterprise

Centre for Business and Enterprise: Report

The Centre for Business and Enterprise (CBE) at Wintec delivers practical research that helps businesses and communities respond to real-world challenges across Aotearoa New Zealand and beyond.

Using both quantitative and qualitative approaches, the Centre focuses on areas including sustainability, artificial intelligence, hospitality, education, and governance. Working closely with industry partners, educators, and community organisations, its research addresses important issues such as environmental responsibility, ethical decision-making, and organisational performance, supporting better decisions and improved efficiency. Ultimately, this research strengthens organisational practice, informs policy, and contributes to more sustainable, innovative, and socially responsible communities.

Research Impact Story

In 2025, CBE strengthened its global connections through the Erasmus+ scholarship programme in partnership with Zuyd University of Applied Sciences. This initiative connected staff and students across borders, creating opportunities for shared learning and research. A Wintec researcher presented work on climate risk reporting at an international conference in Maastricht, the Netherlands, while a visiting academic from Zuyd University delivered a guest lecture at the AWIL conference at Wintec, strengthening knowledge exchange between the two institutions.

This partnership has already led to the development of a Collaborative Online International Learning (COIL) project, enabling students and staff to work with international peers. For learners, this means gaining global perspectives, practical skills, and the confidence to succeed in an international environment. Looking ahead, the collaboration has strong potential to expand to other universities worldwide, creating broader opportunities for students, staff, and industry to benefit from globally connected research and education.

Key Highlights

Visiting Scholar and International engagement

CBE hosted a visiting scholar, Dr. Jules Verheesen from Zuyd University of Applied Sciences (Maastricht, the Netherlands), who delivered a series of well-received sessions for ākonga and for kaimahi, with a special focus on developing ideas for research collaboration.

AWIL Conference

The Centre successfully hosted the AWIL Conference twice in 2025, a student-led event that promotes collaborative research between staff and students. The conference provided a platform for sharing ideas, presenting research, and building confidence in applied research and professional communication.



Research Roundtable Discussions

The Centre's regular series of research roundtable discussions bring together CBE researchers to share insights and discuss emerging topics, with a focus on encouraging interdisciplinary thinking. Positive outcomes from the 2025 sessions have led to establishing exciting new collaborations for 2026 and beyond.

Centre Research Connections

CBE maintains strong partnerships with stakeholders across government, industry, education, and community sectors to ensure its research addresses real-world challenges. Key collaborators include Inland Revenue, New Zealand banks, Chambers of Commerce, Chartered Accountants Australia and New Zealand (CAANZ), CPA Australia, and leading professional services firms such as Deloitte, PwC, EY, and KPMG. The Centre also engages with community organisations such as the Refugee Orientation Centre (ROC) to ensure research remains grounded in local need.

National collaborations include partnerships with the University of Waikato, University of Auckland, Auckland University of Technology, and Massey University. Internationally, CBE works with Zuyd University of Applied Sciences, Kozminski University, La Trobe University, and the University of Adelaide, supporting joint research, knowledge exchange, and student and staff mobility. These connections strengthen the Centre's global outlook and enable meaningful contributions to communities and the wider economy.

Looking Ahead

Looking ahead, CBE is committed to strengthening its impact through innovative, industry-connected, and globally engaged research. The Centre will continue to advance research in sustainability, artificial intelligence, governance, and organisational performance, supporting businesses and communities in responding to rapidly evolving economic, technological, and environmental challenges. A key priority for 2026 is ensuring that planned research outputs are successfully completed and reported through ROMS, supporting NZQA expectations across all CBE degree programmes.

The Centre also aims to deepen partnerships with industry, government agencies, and community organisations to co-develop practical solutions with measurable real-world impact, with planned research focusing on supply chain resilience, digital transformation, climate-related business challenges, and emerging technologies.

CBE will further expand its international collaborations with universities and organisations across Europe, Australia, and Asia, creating opportunities for joint research, staff and student exchanges, and collaborative learning initiatives. These partnerships strengthen global knowledge exchange, enhance research capability, and contribute to the development of future-ready graduates and more sustainable, resilient, and internationally connected communities.



Dr. Sharon Manasseh
Senior Academic Staff Member –
Centre for Business and Enterprise

Researcher Profile: Dr. Sharon Manasseh

Dr. Sharon Manasseh is a Senior Academic Staff Member CBE, with expertise in environmental, social and governance (ESG) and sustainability.

Her early research examined corporate social disclosure reporting practices in Malaysia, before transitioning into areas closer to her academic role: the teaching and research nexus, research-informed teaching, and academic workload. These became the focus of her doctorate at the University of Waikato, which drew attention to the experiences of New Zealand accounting academics and emerging researchers within the Performance-Based Research Funding (PBRF) system, which operated for over 20 years until 2024.

Institutional sustainability in accounting education is crucial to ensuring the integration of dynamic teaching, research and learning practices, and to ensuring that academic research can address emerging issues in accounting curricula and the future workplace. Academic sustainability supports the long-term viability of Higher Education Institutions.

Sharon's first phase of research, developed in collaboration with her supervisors Associate Professor Mary Low and Dr. Richard Calderwood from the University of Waikato, resulted in the article "Accounting academic leaders' perceptions on New Zealand's performance-based research funding system," published in 2024 in the *Journal of Accounting & Organizational*

Change. Building on her doctoral findings, Sharon is now working with Associate Professor Mary Low on a further paper that gives voice to accounting academics' experiences in New Zealand. Her future work will continue to explore shifts in academic roles and experiences, with a particular focus on institutional autonomy and academic freedom. With around 30 years of experience in academia across New Zealand and Malaysia, Sharon remains committed to research into the changing academic landscape.

Dedicated to fostering a research culture among her students, Sharon engages in mentorship, scholarly guidance and the sharing of her own research experiences. She is also committed to presenting her work at academic conferences to ensure rigour and foster real-time discussion. Sharon holds a lead role in CBE's international and study abroad efforts, and a recent visit to Kozminski University, a highly ranked business school in Warsaw with multiple international accreditations, opened promising discussions with European business schools around research collaboration and staff and student exchange programmes.

She is also looking forward to an upcoming advisory role with a Hamilton tertiary provider, contributing to the strengthening of local research activity.



Dr. Dhammika Silva
Principal Academic Staff Member –
Centre for Business and Enterprise

Emerging Researcher Spotlight: Dr. Dhammika Silva

Dr. Dhammika Silva is a Principal Academic Staff Member in CBE and is an emerging scholar-practitioner in organisational psychology with an interest in higher education and academic identity.

Her applied research bridges scholarly inquiry and professional practice and explores how academics construct and reshape their identities while navigating the ongoing impact of reforms and multi-dimensional change in the vocational education sector in New Zealand. Employing qualitative modes of inquiry, through graphic elicitations, rich contextual descriptions of narratives and memo writing, her study illuminates the lived experiences of academics in the sector. In the study's contribution to practice, evidence-based insights call for vocational education institutions to deliver their services with support from academics to further illuminate and contextualise an understanding of the dynamics of academic duties and expectations for more culturally responsive pedagogy.

A central tenet of Silva's work is the belief that while current studies explain how academic practice and identity, shaped and reshaped, are resultant to change; there is no comparative attention to the individual psychological capacities that enable academics to respond constructively during times of challenge for performance improvement. Accordingly, a conceptual framework that is grounded in the empirical findings and theoretical assumptions of Silva's study, including the positive higher-order constructs of Psychological Capital defines steps institutions can implement for academic identity transition and positive organisational psychology outcomes.

Silva's applied research bridges scholarly inquiry and professional practice...



Dr. 'Elisapesi Havea
Centre Research Leader
Principal Academic Staff Member –
Centre for Education and Foundational
Pathways

Centre for Education and Foundational Pathways: Report

Centre Narrative

The Centre for Education and Foundational Pathways (CEFP) conducts applied, collaborative research that strengthens educational practice, learner success, workforce capability, and community wellbeing across Aotearoa New Zealand. The Centre's research spans literacy and numeracy achievement, professional growth in vocational education, culturally responsive teaching and learning, Indigenous and Pacific learner experiences, work-integrated learning, early childhood education, and knowledge transfer within industry settings. Current projects explore the Professional Growth Cycle in vocational education, work-integrated learning practices within Initial Teacher Education, tacit knowledge transfer in the electrical supply industry, and African perspectives on early childhood learning and development. Through partnerships with educators, communities, iwi, and industry, the Centre addresses contemporary educational and social challenges while promoting equitable outcomes for ākonga. Its work also extends to sustainability, climate resilience, and climate justice within Pacific communities.

Research Impact Story

In 2025, CEFP contributed to important conversations on climate justice, migration, and inclusive education through collaborative and culturally grounded research. Key projects explored climate-induced migration from Pacific perspectives, focusing on resilience, justice, and belonging for displaced communities. A further initiative examined concepts of early childhood learning and development from an African perspective, highlighting the importance of culturally responsive approaches to education. In collaboration with researchers from AUT and community partners, findings were presented at international and national conferences including the Oceania Biblical Studies Association(OBSA) Conference in Tonga and the Te Poutoko Ora a Kiwa Research Symposium in Auckland.

These projects strengthened regional and international partnerships, elevated diverse cultural perspectives in research, and demonstrated the Centre's commitment to work that informs practice, supports communities, and creates meaningful social impact.



Key Highlights

Lightning Talk Symposium

The Centre hosted its annual Lightning Talk Symposium, providing researchers with opportunities to share current projects, strengthen collaboration, and foster a vibrant research culture. The event encouraged knowledge exchange, interdisciplinary discussion, and greater visibility of emerging research across the Centre.

CEFP welcomed Dr. Lynley Tulloch from Auckland University of Technology as the keynote speaker. Her presentation on her research inspired kaimahi and emerging researchers while strengthening connections and opportunities for future collaboration.

International conference presentation

Research leader Dr. 'Elisapesi Havea secured funding to attend and present at the OBSA Conference in Tonga, delivering both an individual and collaborative presentation focused on climate justice, migration, and Pacific resilience. The opportunity strengthened international research connections and elevated the visibility of Pacific-led research.

Centre Research Connections

The Centre for Education and Foundation Pathways values strong collaborative partnerships that enhance the quality, relevance, and impact of its research. Researchers from Initial Teacher Education and Foundation Pathways work closely together on projects exploring learner success, culturally responsive teaching, literacy and numeracy development, and improved outcomes for Māori and Pasifika ākonga. These collaborations encourage knowledge and expertise sharing across disciplines while supporting research-informed educational practice.

The Centre also collaborates with external partners, including researchers from Auckland University of Technology (AUT), on projects focused on sustainability, climate justice, and climate change adaptation within Pacific communities. These partnerships have created opportunities for joint conference presentations, research dissemination, and international engagement. Through maintaining strong relationships with educational, community, and research partners, the Centre continues to strengthen its research capability and contribute to meaningful social and educational impact.

Looking Ahead

Looking ahead, CEFP will continue to strengthen its focus on collaborative, practice-based, and culturally responsive research that supports positive outcomes for learners, educators, and communities across Aotearoa New Zealand. Key priorities for the coming year include growing interdisciplinary research collaborations, supporting emerging researchers, and expanding opportunities for staff to engage in research dissemination and publication.

Several new initiatives are planned, including a collaborative project between Initial Teacher Education kaiako and the McKenzie Centre exploring early intervention strategies for challenging behaviour in early childhood education. The project will examine how kaiako can implement culturally responsive approaches grounded in Te Whāriki and Te Ao Māori principles to better support tamariki and whānau. Additional research will explore the Professional Growth Cycle within vocational education and investigate current approaches to work-integrated learning within Initial Teacher Education programmes. Through these initiatives, the Centre aims to strengthen research capability, inform educational practice, and contribute to inclusive and innovative learning environments.



Dr. Emela Fenmachi
Centre Research Leader
Senior Academic Staff Member –
Centre for Education and Foundational
Pathways

Researcher Profile: Dr. Emela Fenmachi

Dr. Emela Fenmachi is a Senior Academic Staff Member in CEF. Her research focuses on inclusive early childhood education, with an emphasis on equity, culturally responsive pedagogy, and improving outcomes for diverse learners.

Her work explores how education systems can better support tamariki with additional learning needs, as well as Māori and Pacific learners, through collaborative and contextually grounded approaches. Her interest in this area was shaped by her doctoral research at the University of Waikato, which examined parental involvement in early childhood education in Cameroon, highlighting the importance of relationships and sociocultural contexts in children's learning.

Her current research, now in the data collection phase, investigates early intervention for tamariki with additional needs in early childhood education. The study explores how a transdisciplinary research approach, bringing together whānau, kaiako, and specialist agencies, supports holistic learning across early intervention centres, ECE settings, and home environments. Using a qualitative methodology informed by sociocultural and ecological frameworks, the research examines

how early intervention strategies are shared and implemented in practice, and how these support participation and learning.

A key feature of this work is its focus on culturally grounded practice. The study considers how Te Whāriki principles and Te Ao Māori concepts such as whanaungatanga, manaakitanga, and ako are embedded within teaching and collaboration. It also examines structural factors, including access to specialist services and professional learning, that influence the continuity of support. By centring whānau perspectives, the research aims to strengthen partnerships and reduce barriers to learning.

Dr. Fenmachi's research contributes to developing inclusive, collaborative, and culturally responsive approaches to education. She aims to extend this work through sustainable models of practice that enhance equity, participation, and success for all learners and their whānau.



Kayla Charteris
Senior Academic Staff Member –
Centre for Education and Foundational
Pathways

Emerging Researcher Spotlight: Kayla Charteris

Kayla Charteris is a Senior Academic Staff Member in CEFP. Her research interests sit within Initial Teacher Education (ITE), work-integrated learning (WIL), mentoring, professional identity formation, and reflective practice in early childhood education.

Her work explores how authentic partnerships between tertiary providers, student kaiako (teachers), mentors, and the early childhood sector can strengthen meaningful learning experiences and support the development of ethical, culturally responsive, and critically reflective beginning teachers. She is particularly interested in strengthening mentoring practices within initial teacher education, including how ITE teams can critically reflect on and improve their own mentoring approaches, and how mentors can be better supported to engage in authentic and effective mentoring relationships. Her research also explores the relationship between theory and practice, and how WIL can move beyond “work-readiness” to foster adaptable, relational, and socially responsive educators.

In 2025, Kayla’s research focused on exploring understandings and enactments of work-integrated learning within the Bachelor of Teaching (ECE) programme at Wintec. Drawing on qualitative approaches and the voices of both lecturers and graduating ākonga (students), the project examined how WIL is experienced within field-based teaching practice and the classroom. The research highlighted the importance of reflective dialogue, authentic teaching experiences, and strong relational partnerships in supporting student kaiako to navigate the complexities of contemporary teaching practice. Findings from this work were shared through conference presentations and continue to inform programme development and curriculum design within ITE.



Dr. Liam Aghazadegan
Centre Research Leader
Academic Staff Member –
Centre for Engineering and Industrial Design

Centre for Engineering and Industrial Design: Report

Centre Narrative

The Centre for Engineering and Industrial Design (CEID) undertakes applied research across engineering, technology, and design disciplines, responding to real-world challenges in advanced manufacturing, digital technologies, energy systems, engineering education, environmental modelling, industrial design, and infrastructure. Research within the Centre supports industry innovation, sustainable practice, student learning, and workforce capability. A key strength is the connection between research and teaching, final-year projects, professional practice, and external collaboration, ensuring outcomes are relevant to communities, industry, and Aotearoa New Zealand's future workforce.

Research Impact Story

In 2025, CEID strengthened the connection between applied research, teaching, and professional practice. The Centre spans three main disciplines: Civil Engineering, Mechanical and Electrical Engineering, and Industrial Design, each encompassing highly technical sub-disciplines. While the majority of outputs focused on industry-relevant technical investigations, staff also produced

teaching-centred research, including redesigned engineering assessments and virtual mechatronic training models. Drawing on these outputs, staff directly informed learning activities and final-year student projects, with learners gaining applied, research-backed experience across robotics and solar energy systems, water services reform and sustainable infrastructure, and computational fluid dynamics (CFD) modelling, air quality assessment, and digital engineering design. Students engaged with authentic engineering challenges while developing practical skills in problem-solving, modelling, design, and analysis, with research findings also disseminated through conference papers, journal articles, and technical presentations.

Key Highlights

Applied and Industry-connected Research

CEID staff advanced applied research in digital twin technologies, CFD modelling, battery recyclability, water governance, materials characterisation, power electronics, and sustainable infrastructure, demonstrating the Centre's multidisciplinary capability.



Research within CEID supports industry innovation, sustainable practice, student learning, and workforce capability.

Research Dissemination and Visibility

In 2025, staff produced 36 research outputs, including peer-reviewed journal articles, professional workshops, published proceedings and other conference contributions, including contributions to Water New Zealand, NZSEE, ASME, IEEE, and other national and international research forums.

Research-informed Teaching and Student Engagement

CEID embedded research-informed teaching across capstone and elective engineering courses, through Moodle formula-type assessment innovations and final-year projects linked to robotics, solar systems, water services reform, CFD, air quality, digital technologies, and sustainable engineering practice.

Centre Research Connections

CEID maintains connections across tertiary institutions, professional bodies, and industry networks nationally and internationally. In 2025, staff collaborated with external academic partners and contributed to forums spanning civil and water engineering

(International Water Association, NZSEE, Water New Zealand), mechanical engineering (ASME), electrical and systems engineering (IEEE), and national symposia (ITP Rangahau and Research Symposium). Staff also engaged with external partners through workshops, knowledge exchange, and collaborative research development.

Looking Ahead

CEID will advance its applied research profile by focusing on three priorities: elevating the quality of outputs, building internal capability through targeted researcher support, and cultivating strategic partnerships across industry and academia. Research will continue across sustainable infrastructure, advanced manufacturing, digital technologies, AI, energy systems, materials engineering, environmental modelling, engineering education, robotics, and industrial design. A further priority is embedding research more intentionally into teaching and final-year student work, strengthening graduate capability and professional readiness.



Dr. Sina Enteshari
Academic Staff Member –
Centre for Engineering and Industrial
Design

Emerging Researcher Spotlight: Dr. Sina Enteshari

Sina's research spans multiple disciplines, reflecting a belief that working across different fields leads to stronger research and practice.

Core interests include engineering education, automation, electrical engineering, and sustainability, with a particular focus on artificial intelligence, and control systems. This wide-ranging approach allows Sina to contribute across sectors where technology and education meet.

In 2025, Sina held an honorary researcher position at the University of Waikato as part of the Waikato Battery Team, where his work focused on testing vape batteries to measure state-of-charge and state-of-health.

The modelling methods developed carry applications well beyond consumer products, with direct transferability to battery-powered aircraft and potential contributions to aerospace energy systems. Alongside this, Sina progressed multiple journal publications spanning power systems and engineering education, including collaborative work with the University of Melbourne.

Enteshari's research carries direct transferability to battery-powered aircraft and potential contributions to aerospace energy systems.





Dr. Patricia McClunie-Trust
Centre Research Leader
Principal Academic Staff Member –
Centre for Health and Social Practice

Centre for Health and Social Practice: Report

Centre Narrative

Research in the Centre for Health and Social Practice focuses on building stronger professional practice communities. Researchers engage in mahi tahi – collaborative and inclusive teamwork – conducting research alongside stakeholders including industry partners, iwi, ākonga, and professional bodies. Core research interests include contributing to Māori achievement, improving ākonga experience, supporting programme development, and showcasing the mahi of ākonga. The Centre also collaborates with partners across Wintec and with national and international organisations.

Research Impact Story

New Zealand's largest and longest VRE outbreak: a clinically led, researcher-supported, evidence-based response

This research on vancomycin-resistant enterococci (VRE) is a partnership between Infection Prevention and Control (IPC) clinicians at Te Whatu Ora Waikato and researchers from Wintec. The research team are working together on a rigorous scoping review, collaborating in structured online sessions that include coaching on screening evidence using the digital platform Covidence.

This process ensures that detailed clinical data from the outbreak and the IPC team's experience inform the scoping review's inclusion criteria and the resulting protocols, procedures, and guideline recommendations.

The collaboration will produce multiple outcomes: a report to support investment in environmental cleaning strategies, encompassing specific resources, relationships (including human factors such as education, attitudes, expectations, and roles), procedures, and protocols; publication of a scoping review as a prelude to primary research studies; publication of a qualitative study of the IPC team's experience of responding to and managing the outbreak; and organisational guidelines for environmental cleaning, for adoption by national hospital health services.

Key Highlights

CHASP researchers are collaborating with others from across the polytechnic and university sectors in New Zealand, Australia, and the UK, enabling longitudinal studies with larger, more representative datasets.



CHASP researchers engage in mahi tahi – collaborative and inclusive teamwork...



Vancomycin-resistant enterococci
Photo credit: nzhealthe.co.nz

The Graduate Entry Nursing New Zealand Australia Collaboration published a longitudinal study in 2025 exploring the development of graduate-entry Master of Nursing Science students' sense of professional identity as nurses, drawing on data collected from students at four nursing education institutions.

Rory Christopherson was successful in securing funding for his research from Arthritis New Zealand – Mateponapona Aotearoa, and continues his external collaborations on a study assessing the validity of a measurement tool for chronic low back pain.

Centre Research Connections

The Centre for Health and Social Practice maintains diverse collaborations with external industry partners and education providers, enabling CHASP researchers to engage with health and social care clinicians and researchers and bringing strength and rigour to the Centre's research. These include work with, among others, the Infection Control and Prevention Team at Te Whatu Ora Waikato, Te Pou, NZ Drug Foundation, Arthritis New Zealand, and the Addiction Practitioners Association Aotearoa New Zealand.

Looking Ahead

Current research activity spans several interconnected themes. Work is underway developing a comprehensive framework for understanding and measuring the place of Mātauranga Māori within health professional education, with careful attention to questions of context, relevance, and responsibility. A forthcoming edited collection brings together practitioner narratives exploring professional and personal identity development within the distinctive context of Aotearoa New Zealand. Separate research is examining the training experiences of Māori and Pasifika midwives, identifying the factors that supported or hindered their journeys.

Further work is exploring the barriers to person-centred, bio-psychosociocultural approaches in physiotherapy practice, using an Interpretive Description methodology to examine the dynamics of patient-therapist interaction. A trans-Tasman Delphi study is also underway to develop transition pathways to advanced scopes of practice for nurses completing graduate-entry master's programmes.



De Cleaver
Team Leader – Midwifery
Centre for Health and Social Practice

Researcher Profile (Midwifery): De Cleaver

De Cleaver is a midwifery educator and current Head of Midwifery whose research focuses on decolonisation within education and the development of Te Tiriti o Waitangi-informed teaching and learning spaces.

Working within the Bachelor of Midwifery programme at Wintec, her research explores how education environments can support and model equitable, relational, and culturally safe and responsive practice in Aotearoa. As a tangata tiriti researcher, her positionality is central to this work, reflected in a commitment to respectful partnership, critical reflexivity and accountability within Te Tiriti-informed educational praxis. De's research is grounded in a commitment to contribute to learning environments that are safe, inclusive, and transformative for both tangata whenua and tangata tiriti learners and educators.

This research interest developed through teaching Te Tiriti-focused courses within the Bachelor of Midwifery.

Experiences shared by ākonga in these learning spaces highlighted the profound impact that culturally responsive and critically reflective teaching can have on learners' sense of belonging, understanding, and willingness to embrace new perspectives and personal growth.

Alongside this work, there is an interest in the sustainability of midwifery education, particularly in understanding what supports and sustains midwifery educators and strengthens the connection between clinical practice and education.

Looking ahead, De hopes to continue exploring decolonising educational practices and Te Tiriti-informed pedagogy, with a focus on supporting equitable, relational, and sustainable approaches to midwifery education in Aotearoa.

De's research is grounded in a commitment to contribute to safe, inclusive, and transformative learning environments.





Dr. Melody May
Academic Staff Member
Centre for Health and Social Practice

Researcher profile (Nursing): Dr. Melody May

Dr. Melody May is an emerging researcher, and creative writer, teaching in the department of nursing. Her research uses medical humanities lenses to understand the difficulty in communicating pain.

Communication has three elements: a sufferer, a witness, and a gap between them. A strange distortion often occurs within this gap; it is polluted with the static of bias and assumption. While her work considers the difficulty sometimes experienced in expressing the reality of pain in our bodies, much of her research interrogates the distortion in the gap and how the issues are complicated by gender—sometimes referred to as the ‘Gender Pain Gap’.

She is currently working on several articles after presenting her research on representation of the gendered experience of pain at several international conferences.

Her main focus is a five-year project to ultimately change the health assessment process and address the social factors that contribute to the Gender Pain Gap in healthcare settings.

Despite decades of research deciphering causes of health inequity in Aotearoa and genuine efforts to combat them, we still have not managed to make significant progress in addressing these inequities. Specifically, there are clear disparities for Māori and Pasifika and significant differences based on gender. Not only is this dangerous for patients, but it also puts added pressure on a healthcare system that is already stretched too thin and increases cost in the long term.

There are several pressing issues for women. They are more likely to develop chronic illness, but their symptoms are also more frequently misdiagnosed or even dismissed—leading to prolonged suffering, and an increase in disability or preventable death. Research into women’s bodies is in its infancy—most research is based on men or male animals and extrapolated for women’s bodies, leading to dangerous parameters for medication and assumptions about ‘normal’ symptoms.



May's research will help address the social factors that contribute to the Gender Pain Gap in healthcare settings.

These assumptions are particularly problematic because healthcare professionals, understandably, trust that their education has been comprehensive and tend to dismiss symptoms or experiences that seem unrelated. The problem is, we now know that men and women can present the same illness in very different ways. For example, women are 50% more likely to be misdiagnosed and sent home when experiencing a myocardial infarction which increases their risk of death within the year following their cardiac event.

Unfortunately, for our Māori and Pasifika patients this disparity is more widespread than just gender. However, the risks are similar. They are more likely to have chronic illnesses, they have higher mortality rates for these illnesses, and the extrapolation of "normal" symptoms often leaves their symptoms misdiagnosed. This can lead to a late diagnosis with an increased risk of long-term damage and disability or death.

This current project aims to gamify an attitude shift for healthcare professionals. At the moment when graduates of healthcare schools gain their qualifications, they have an assumption that they have learned most of what there is to know about the human body. But the research and texts books have left out significant swaths of the population. So along with working towards curriculum changes, she will be developing a database to change the focus of assessment from one that tends to eliminate and compartmentalise information to one that is based in curiosity and inquiry. There are two main goals for the database. First, it will hopefully shift the power dynamic in the consultation space helping patients feel heard and second it will provide a space for identifying future areas of research that will close the gap in our understanding of illnesses in diverse bodies.



Heidi Crawford
Senior Academic Staff Member
Centre for Health and Social Practice

Emerging Researcher Spotlight (Social Practice): Heidi Crawford

Heidi's current research includes teaching and learning as well as concepts of identity and space in relation to being in Aotearoa, working as a Te Tiriti o Waitangi action partner and ally.

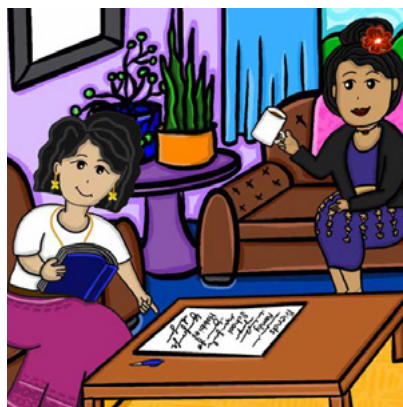
She also works alongside social practice organisations to develop stories and illustration for picture books. Heidi is also passionate about social research and working to make research more accessible and useful for practitioners at all levels.

In 2026, Heidi has two articles that will be published from 2025 projects. The first looks at the use of small, focused groups to integrate learning (completed alongside Rebecca Giles and Rochelle Ward) and one that looks at what is important for youth programmes to support alcohol and drug addiction (alongside Laurette Bourgoïn, graduate of Wintec's Bachelor of Social Work).

Heidi's research focus this year is based in two key areas. The first is being part of a nationwide project focused on blended learning and contributing the use of blended learning models in the classroom. The second has the intended outcome of a book being published as part of a group project with the social practice team and community practitioners. This research uses autoethnography to develop stories of how identity and relationship with Te Tiriti o Waitangi influence the growth of professional practice and a professional identity.



In addition to her research, Crawford also develops stories and illustration for picture books.



Heidi Crawford
Who Is a SWis and What Do They Do?
Used with permission.



Hamiora Te Momo
Centre Research Leader
Principal Academic Staff Member
Centre for Information Technology

Centre for Information Technology: Report

Centre Narrative

The Centre for Information Technology (CfIT) – Te Kura Mo Te Hangarau Whakaaturanga undertakes applied and culturally responsive research across artificial intelligence, software engineering, data analytics, health informatics, digital innovation, and Mātauranga Māori-informed IT pedagogy. The Centre's research supports communities, industry, and tertiary education through collaborative and practice-based projects that connect teaching, technology, and real-world impact. In 2025, the Centre strengthened its research culture through national and international partnerships, student-engaged research initiatives, and a growing focus on Indigenous-led digital innovation and community-centred technology development.

Research Impact Story

One of the Centre's most significant initiatives in 2025 was the continuation of the AWAI – Awhi Whānau, Awhi Iwi collaboration with Massey University. The project explored how culturally grounded digital technologies can support tamariki, whānau, and iwi through community-focused innovation and Māori-centred design approaches.

As part of the initiative, students from the COMP709 Mobile Development course designed and developed prototype mobile applications to support information access and crisis response scenarios.

Using Mātauranga Māori-informed teaching approaches, students worked collaboratively in whānau-based teams to create digital solutions responsive to vulnerable user groups and high-stress community contexts.

The project created meaningful benefits for both learners and communities by combining applied research, Indigenous knowledge systems, and technology innovation. It also strengthened relationships between tertiary education, Māori communities, and external research partners while contributing to national conversations around ethical and culturally responsive digital development.

The project has developed into an internship/IT project for 2026 with findings shortly due to be disseminated.

Key Highlights

Te Puna Mātauranga Research Conference Book

The 2025 CfIT Research Conference Book expanded into a significant annual publication showcasing staff, student, and industry-engaged research across artificial intelligence, software engineering, data analytics, Indigenous IT pedagogy, and applied innovation.



CfIT aims to strengthen research dissemination through future symposia, publications, and applied student research.

National and International Research Engagement

CfIT researchers contributed to the ITP Rangahau and Research Symposium and participated in international collaboration through Kozminski University, Poland, strengthening dialogue around Indigenous innovation, sustainability, and AI-informed futures.

Centre Research Connections

In 2025, the Centre strengthened a wide range of collaborative research relationships across tertiary education, industry, and community sectors. Key partnerships included the ongoing AWAI – Awhi Whānau, Awhi Iwi collaboration with Massey University, which explored culturally grounded digital innovation supporting tamariki, whānau, and iwi.

The Centre also expanded national engagement through collaborative research dissemination activities with Toi Ohomai Institute of Technology and participation in the ITP Rangahau and Research Symposium. Internationally, CfIT reconnected with Kozminski University in Poland through European Union Week 2025, contributing to global discussions on Indigenous innovation, sustainability, and ethical technology design.

These collaborations strengthened opportunities for shared research, applied ākonga projects, cross-institutional dialogue, and future international engagement in areas

including artificial intelligence, digital innovation, and culturally responsive IT education.

Looking Ahead

Looking ahead, CfIT will continue strengthening its applied and culturally responsive research profile through increased collaboration, output development, and researcher capability building. A major priority for 2026 will be supporting researchers to convert ongoing projects and emerging research activity into journal articles, while continuing to strengthen mentoring and research development pathways for newer researchers.

The Centre will further expand research activity in artificial intelligence, software engineering, data analytics, Indigenous digital innovation, and Mātauranga Māori-informed IT pedagogy. Existing collaborations with Massey University and international partners will continue to develop, alongside new opportunities for cross-institutional and community-engaged research initiatives.

CfIT also aims to strengthen research dissemination through future symposia, publications, and applied student research projects that connect industry, community, and tertiary education. The Centre's ongoing focus will remain on creating meaningful research impact through innovation, collaboration, and culturally grounded approaches to technology and education.



Dr. Shantha Jayalal
Senior Academic Staff Member
Centre for Information Technology

Researcher Profile: Dr. Shantha Jayalal

Dr. Shantha Jayalal is a Senior Academic Staff member in CfIT. His research centres on Large Language Models (LLMs), their real-world applications, and the role of prompt engineering in shaping reliable and effective AI-driven solutions.

Positioned at the intersection of Software Engineering, Artificial Intelligence, and Data Science, his work focuses on how LLMs can be adapted, guided, and evaluated to support complex tasks in practical domains. His interest in this area has developed through his experience in teaching, supervising student research, and engaging in applied projects, where the rapid evolution of generative AI has highlighted both its potential and its limitations in real-world use.

A major strand of Dr. Jayalal's research explores how LLMs can be effectively applied in software engineering, particularly in software testing. He investigates how prompt engineering techniques can be used to guide LLMs in generating test cases and test scenarios directly from software requirements. This work addresses a key challenge in Requirement-Based Testing, especially in contexts where

structured or labelled data is limited. By combining structured representations of requirements (such as epics, functional requirements, and use cases) with carefully designed prompts, his research aims to improve the accuracy, relevance, and completeness of AI-generated test artefacts. A distinctive aspect of this work is the integration of LLMs into systematic software engineering workflows, ensuring that their outputs are aligned with real testing needs rather than being treated as standalone generated content.

In parallel, Dr. Jayalal is actively investigating the broader capabilities and limitations of LLMs across different domains. A significant area of focus is the mitigation of bias and hallucination in LLM-generated outputs, particularly in sensitive domains such as healthcare.



... the rapid evolution of generative AI has highlighted both its potential and its limitations in real-world use.

His research examines how prompt engineering, combined with knowledge-grounded approaches, can improve the trustworthiness and reliability of these systems. Additionally, he is engaged in comparative research exploring the use of LLMs alongside established tools such as NVivo and programming-based approaches using R for qualitative data analysis. This work provides insight into how LLMs can support or enhance traditional research methodologies, particularly in thematic analysis and interpretation of qualitative data.

Collaboration is a key component of Dr. Jayalal's research. He works with academic partners at the Faculty of Science, University of Kelaniya, Sri Lanka, contributing to research in artificial intelligence and natural language processing. At Wintec, he collaborates with colleagues including Dr. Diab Abuaiadah and Dr. Michael Bosu on projects

related to software testing and DevOps, with a focus on integrating LLM-driven approaches into modern software development and deployment practices.

Looking forward, Dr. Jayalal's research will continue to advance the understanding and application of Large Language Models, with a strong emphasis on prompt engineering as a mechanism for controlling, evaluating, and improving AI outputs. His future work aims to develop more robust, explainable, and domain-adaptive LLM-based systems, particularly in software engineering and healthcare. This evolving research direction is driven by the need for trustworthy and practically deployable AI solutions that can effectively support complex, real-world tasks.

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Dr. Anuradha Madurapperumage
Senior Academic Staff Member
Centre for Information Technology

Emerging Researcher Spotlight: Dr. Anuradha Madurapperumage

Dr. Anuradha Madurapperumage's research interests are centred on information systems, artificial intelligence, machine learning, Large Language Models (LLMs), data science, and health informatics.

Her work focuses on applying AI-driven and data-driven approaches to solve real-world healthcare and organisational problems. She is particularly interested in predictive analytics, clinical decision support systems, business intelligence, information governance, and the practical integration of AI and LLM-based technologies into healthcare and industry environments. Her research explores how intelligent systems can support data-informed decision-making, automation, and innovation across complex domains.

In 2025, Anuradha completed her PhD at the University of Waikato, with research focused on developing AI-driven clinical decision support systems for predicting complications of Diabetes Mellitus using a Design Science Research approach.

Her work combines machine learning, healthcare data analytics, co-design methodologies, and intelligent systems to support early identification of diabetes-related risks and improve healthcare outcomes. During the year, she also contributed to research dissemination through presentations at the ITP Research Symposium in December and the Emerging IT Event Horizons Online Symposium in April, where she shared research related to healthcare analytics, AI-driven systems, and predictive modelling.



Dr. Anthea Fester
Centre Research Leader
Principal Academic Staff Member
Centre for Languages

Centre for Languages: Report

Centre Narrative

The Centre for Languages (CfL) has a diverse range of English language teaching research projects currently underway. The common thread underpinning this research is literacy education through English language learning for adults with low first-language literacy, most of whom are from refugee backgrounds. The Centre's work aims to empower these learners toward independence and workforce participation, inform those who educate them, and share findings on local and global platforms. The overarching intention is to ensure that the real-world challenges these learners face, revealed through research, can be addressed and potential solutions implemented.

Research Impact Story

In 2025, the Centre embarked on a new Visual Literacy project in collaboration with the English Language Partners manager in Rotorua. The focus of the project is on how adult learners with emerging literacy process visuals common to both their daily lives and the language classroom.

The project is currently in the data gathering stage, where video-recorded interviews are being conducted with participants.

Participants are asked a series of questions related to photos of everyday situations, such as a bus stop with a timetable. In the analysis stage, a pre-designed coding schema will be applied, encompassing eye movement, facial expression, gesture, verbal labelling, and use of prior knowledge or cultural references.

Early findings indicate a range of techniques, including a tendency to focus on foreground rather than background information, a concentration on one section of an image at a time, and a diverse range of hand gestures used while trying to access language. The project underlines the importance of centring this learner cohort's experiences in developing best practice across the adult emerging literacy sector.

Key Highlights

Community collaboration

The Centre's latest community project is in collaboration with the Refugee Orientation Centre (ROC), the largest provider of support services for refugees in the Waikato. The project focuses on reducing the attrition rate of former refugee background (FRB) secondary learners transitioning to tertiary study.



The centre's latest community project is in collaboration with the Refugee Orientation Centre...

FRB learners' pathways at Wintec

Several of the Centre's researchers have also initiated a project examining how previous CfL FRB learners manage their transition into mainstream study at Wintec. The research addresses both the challenges and positive outcomes associated with this cohort as they move from the Centre for Languages into mainstream education.

Conference presentations

The Centre's research has been well represented at conferences, with multiple papers presented at the Applied Linguistics New Zealand Symposium and at the ITP Symposium. Presentation topics drew on a range of collaborative projects within the Centre, as well as a collaborative project between a Centre researcher and a colleague at the Centre for Business and Enterprise.

Centre Research Connections

CfL works closely with key partners across the language learning, applied linguistics, and community sectors. Long-standing collaborators include applied linguists at the University of Waikato, the English Language Partners manager in Rotorua, and the Refugee Orientation Centre Trust (ROC).

These partnerships strengthen the Centre's ability to engage in research that addresses real-world challenges for a significant and underserved group of learners, and to work toward equitable outcomes for them.

Looking Ahead

Looking ahead to 2026 and beyond, the Centre for Languages will participate in several research initiatives that build on existing collaborative projects across Wintec and with external organisations, including the Ministry of Education and secondary schools. Current projects build on the Centre's work with adults who have emerging literacy in English and the academic success of learners from former refugee backgrounds. Together, these projects extend the Centre's work into how adult learners with emerging literacy learn best.

An ongoing collaborative project between the Centre for Languages and the Centre for Business and Enterprise, focusing on English as an Additional Language (EAL) women who are small business owners in the Waikato region, continues to generate strong outputs, with two articles and several presentations already completed and further articles and presentations in progress.



Dr. Anthea Fester
Centre Research Leader
Principal Academic Staff Member
Centre for Languages

Researcher Profile: Dr. Anthea Fester

Dr. Anthea Fester is a principal academic and senior research leader in the Centre for Languages. Her research encompasses three main areas: language teacher education; empowering women from EAL backgrounds who own small businesses; and understanding what works best for adults gaining literacy for the first time through their second language.

She believes that empowering EAL businesswomen and adults with no first language literacy will help them to participate more fully in Aotearoa New Zealand. Anthea's focus has increasingly shifted toward the third of these areas: understanding, empowering and enriching the lives of adults with emerging literacy in English. Her engagement in teaching, research and volunteer work with under-represented community groups led to a particular interest in adults with low literacy in their first language, further sparked by her time on the Board of Trustees of Shama, a trust dedicated to empowering women from diverse ethnic backgrounds.

Her most recent collaborative project includes working with the manager of English Language Partners in Rotorua, Jia Rong Rap, and Anthea's research colleagues, Rosemary Granger, Joy Wang and Celine Kearney.

The project's research question relates to how CfL learners with emerging English language literacy process visuals seen in their daily lives and in class. Data gathering techniques include classroom observation of teachers and how the target low literacy learners respond to the visuals used in class, and interviews with learners. Particularly exciting is that the researchers are analysing how these learners use eye movement, facial expressions, gestures and other body language when processing visual material that they would typically see in class or everyday life. Previous studies by the CfL research team, alongside teaching experience with this learner cohort, have highlighted significant differences in their learning compared to learners who are literate in the first language. In addition, the major difference in focus for this project compared to similar globally published research is on physical and verbal responses to visuals, not written responses.



...understanding, empowering and enriching the lives of adults with emerging literacy in English.

Another project that Anthea has thoroughly enjoyed working on has been an ongoing collaborative project with Dr. Sujani Thrikawala from the Centre for Business and Enterprise. The project focuses on pragmatic and cultural competence for EAL women who are small business owners in Kirikiriroa Hamilton. With two articles and several presentations completed, they are currently working on a third article. While working on this project the researchers collaborated with the Refugee Orientation Centre (ROC). As a result, the ROC Director approached Anthea about a research project investigating the transition of FRB secondary learners into tertiary studies, with the aim of reducing attrition. This ROC research initiative is in its early stages, and Anthea has found the collaboration enriching and engaging.

Next steps across these projects will involve further data gathering, collaborative data analysis, and dissemination of findings. Anthea looks forward to exploring how findings across her projects can benefit EAL businesswomen, adults with emerging literacy, and FRB secondary school learners.



Rosemary Granger
Senior Academic Staff Member
Centre for Languages

Emerging Researcher Spotlight: Rosemary Granger

Rosemary's research interests are related to language learning and teaching and focus specifically on the learning and teaching of English as an Additional Language (EAL) in classes mainly comprising migrants to New Zealand from a wide range of different countries as well as some international students.

Her interests in this area include social semiotic multimodality, Language Teacher education in Aotearoa, and visual literacy in learners with limited first language education and literacy.

2025 saw the publication of a paper, co-authored with Anthea Fester, on emoji and sticker use in multimodal collaborative learning on a social media platform in the 2025 TESOLANZ Journal (Teachers of English to Speakers of Other Languages Aotearoa New Zealand). A second peer-reviewed article, also co-authored with Anthea Fester, was accepted for publication by ELT Research: The newsletter of the IATEFL Research Special Interest Group (International Association of Teachers of English as a Foreign Language).

Rosemary's newest project is Visual Literacy and focuses on Former Refugee Background learners with limited formal education and low first-language literacy. The other two researchers involved are Anthea Fester and Jia Rong Yap (English Language Partners). Rosemary was involved with work on a literature review and project planning.

In addition, along with fellow researchers she delivered two presentations. The first, delivered at the 2025 ALANZ symposium (Applied Linguistics Association of New Zealand), focussed on research done with learners with limited first language literacy and education in the CfL and the second was delivered at the ITP Rangahau and Research Symposium and focussed exclusively on the visual literacy project.



Rosemary's research interests are related to language learning and teaching in classes mainly comprising migrants to New Zealand...



Dr. Russ Best
Centre Research Leader
Principal Academic Staff Member
Centre for Sport and Human
Performance

Centre for Sport Science and Human Performance: Report

Centre Narrative

The Centre for Sport Science and Human Performance (CSSHP) focuses on applied and innovative sports science techniques across a range of disciplines, with end users ranging from hockey to horse-racing, and growing connections and outputs in coaching and outdoor education. We cover the full performance spectrum, working on solutions to problems that affect recreational and Olympic athletes, as well as service providers and national governing bodies. The Centre places a strong emphasis on collaborative inquiry, developing confident student researchers and ensuring research findings translate into meaningful real-world impact.

Research Impact Story

Frans van der Merwe, in conjunction with now-Master's graduate Sean Chenery, worked to capture and compare the physical demands of rugby across school, club, provincial, Super Rugby, and international levels. The project used GPS technology to compare running and acceleration/deceleration demands across levels and between positional groups. It required substantial time in the field to collect sufficient data and close industry collaboration to ensure participant access and feedback – representing a welcome contribution to rugby literature, particularly in a New Zealand context.

The work is currently being written up for publication. Sean also achieved a significant career milestone arising in part from this work, securing his first position in professional rugby with the Harlequins, who compete in the English Gallagher Premiership.

Key Highlights

Industry project collaboration with New Zealand Thoroughbred Racing launched

CSSHP has partnered with New Zealand Thoroughbred Racing (NZTR) as they launched their revamped Elite Jockey Programme. This pathway supports talented jockeys through their apprenticeship providing funding and access to employers, personal training, sports science and performance psychology, as well as racing mentorship and nutrition support. We look forward to growing our support and research alongside the programme's intakes and successes.

Conferences

Wintec's hosting of the ITP Research Symposium in late 2025 provided researchers across all experience levels an opportunity to present and connect, with five presentations and a poster covering collaborations with other centres, industry partners, global research networks, and current students and graduates.



Shortly before this, student Ashleigh Downs presented at the Sport and Exercise Science New Zealand Conference, sharing her GPS-based research on match play performance in amateur female football players.

Recognition of research

We would like to acknowledge the efforts of Amy Pearce. Amy started as a Master's student with the centre in 2018, before progressing to being a Principal Academic Staff Member. Amy is awaiting examination of her PhD, and has recently presented at the International Society of Arthroplasty Registries annual congress in Lund, Sweden. We farewelled Amy for a teaching fellow role in early 2026, but she leaves behind a legacy of eight quality clinical exercise physiology publications in highly ranked journals and a high calibre of Master's graduates that benefitted from her supervision and expertise.

Centre Research Connections

2025 saw a significant expansion of the Centre's research partnerships, extending across local, national, and international settings. A particular strength of this network is the integration of postgraduate student placements and scholarships across many of these relationships.

Community Groups, Organisations and Governing Bodies

We have a growing network of impactful connections across community sport and governance. We continue to work with local schools such as Hamilton Girls High School, St Paul's Collegiate and St Peter's School. With respect to governance we are connected to Clinical Exercise Physiology New Zealand, Sport and Exercise Science New Zealand, the New Zealand Strength and Conditioning Association and New Zealand Outdoor Instructors Association. We retain our strong relationship with High Performance Sport New Zealand, with particular connection to Equestrian Sport New Zealand.

Industry Partners

The Centre holds research links with a range of industry partners across equestrian and equine sport (New Zealand Thoroughbred Racing; Ainsley Polo), hockey (Waikato Hockey; Bellarmine Knights Field Hockey), rugby (Chiefs; Harlequins; Waikato Rugby), and cricket (Northern Districts Cricket; West Indies Cricket). Clinical partnerships include Bone and Body Blueprint, the Tauranga Orthopaedic Research Group, and Waikato Hospital, alongside commercial partnerships with Rocket Fuel and VALD.

Institutional Research Partners

The Centre strengthened existing relationships with Auckland

University, Auckland University of Technology, Cardiff Metropolitan University, Hartpury University, and Teesside University.

Looking Ahead

Looking ahead, the Centre is committed to maintaining strong industry connections and producing research that is meaningful across all levels of sport and recreation, from community participants in the Waikato to Olympic hopefuls. Ākonga remain central to this work, and a continued priority is raising the standard of postgraduate contribution to the Centre's research environment.

Heat and cooling strategies are likely to return as a research focus given that upcoming Olympic venues are predominantly hot climates, set against the broader context of global warming and its clinical implications. The Centre is also well positioned to support the thoroughbred industry – which contributes an estimated \$1.2 billion to the New Zealand economy annually – and its athletes. Outdoor education and Mātauranga Māori continue to develop as research themes as capacity and capability within the Centre grows. As across all industries, the role of AI in sport is increasingly prominent, and integrating AI-driven approaches into research practice will become a defining feature of the Centre's work as it moves toward 2030.



Dr. Russ Best
Centre Research Leader
Principal Academic Staff Member
Centre for Sport and Human
Performance

Researcher Profile: Dr. Russ Best

Dr. Russ Best is a Principal Academic Staff Member in CSSHP. His research has two strands: equestrian sports and environmental physiology.

On the equestrian side, his work explores how sports science can support both horse and rider in becoming better athletes.

Environmental physiology examines how environments can be used to improve people's health and performance, or to test the limits of products athletes may use in competition, e.g. using menthol to help manage heat perception.

Russ's interest in environmental physiology developed first, shaped by his own experience as an athlete from the UK training and competing in Kenya, France and Portugal. His entry into equestrian research came through connections in polo, and he now has a personal involvement in the sport as both a horse owner and player.

His current work includes the application of established sports science techniques and technologies to equestrian sport. This has included thermal testing of tendon protection boots for horses under lab, training and competition conditions, undertaken in partnership with Wintec's Centre for Engineering and Industrial Design. On the related issue of animal welfare, a recently published paper in Comparative Exercise Physiology demonstrated that equestrians' beliefs regarding supplements for their horses vary

significantly depending on the form of supplement, the reason for its use, and the rider's level of performance. Supported by Equestrian Sport New Zealand and the racing community, the study highlighted that widespread supplement use may increase the risk of contamination, inadvertent doping and toxicity if not properly tested and managed over time.

On the human side, Russ is increasingly involved in concussion and related health and performance issues in jockeys and other equestrians, with a current focus on how baseline strength and fitness may influence concussion risk, and what nutritional measures can be put in place to prevent or support recovery.

Looking ahead, Russ is keen to continue these research directions and incorporate environmental physiology techniques where appropriate. As global temperatures rise, preparing both horses and human athletes for the increased heat presents a significant medium and long-term challenge to health and performance. He looks forward to building stronger ties with industry and embedding research evidence so that current best practice becomes standard practice over time.



Russ' research includes thermal testing of tendon protection boots for horses under lab, training and competition conditions.



Dr. Nick Brae
Centre Research Leader
Team Manager
School of Media Arts

School of Media Arts: Report

Centre Narrative

The School of Media Arts (SoMA) has a reputation for leading national and international research in art and design, music, culture and communication. Researchers are predominantly engaged in different forms of creative practice, alongside a rich range of applied media practice and theory. The breadth of the school's applied and academic knowledge underpins a well-established postgraduate programme and an ongoing track record of industry and community engagement.

Research Impact Story

Megan Rogerson-Berry collaborated with Jaimee Cruse (ex-postgraduate student and Te Wananga o Aotearoa) to record the taonga pūoro collection of Hinewirangi Morgan. This piece of Rangahau was undertaken at the Wintec S Block recording studio, a significant indication of the regard in which the space is held externally. The Rangahau was important for bringing a cross-cultural lens to an historically Western musical space and artefact (i.e. the recording studio and a digital recording).

Following the recording sessions, the rich and previously undocumented archive of sounds were gifted back to the whānau of Morgan. Rogerson-Berry and Cruse also co-authored a journal article (in further consultation with recording participants) on the process of this Rangahau – namely, how the Te Ao Māori lens changed practices within the studio and the impact of this on practitioners. This article was published in *Perfect Beat* journal in early 2026. Conversations are ongoing around further collaborative projects to stem from this relationship.

Key Highlights

SoMA researchers were highly active in 2025, with all staff achieving output goals. This has a flow-on effect into teaching, ensuring that undergraduate and postgraduate learning material remains current, relevant and informed by practice and academic research.

Wintec hosted the Aotearoa New Zealand Arts Educators Conference in April 2025, with numerous SoMA researchers presenting individual papers, participating in panel discussions and leading workshops.



Researchers are predominantly engaged in different forms of creative practice, alongside a rich range of applied media practice and theory.

Dr. Nick Braae, Dr. Matthew Bannister, Rebekah Harman, Emily Russell and Megan Rogerson-Berry continued to have academic research published in international books (from Bloomsbury and Intellect) and journals (Perfect Beat, Scope, Studies in Australasian Cinema, British Journal of Music Education).

Centre Research Connections

SoMA researchers are connected to a range of individuals and organisations that facilitate the development and dissemination of research. Current examples include Rebekah Harman and Emily Russell at Waikato Museum, with an exhibition in planning for 2027; Dr. Jeremy Mayall at Waikato Regional Theatre, with works commissioned and disseminated in 2025 and early 2026; Elna Fourie of the Design Factory Global Network, with whom a book chapter has been prepared alongside other academics from the network; and Julia Booth of Estill Voice Training, where professional involvement has generated new research project ideas.

A number of researchers are also affiliated with academic organisations such as IASPM (International Association for the Study of Popular Music) and the New Zealand Musicological Society, which generates regular conference outputs as well as broader opportunities for collaboration and service to the research community, including peer reviewing and committee work.

Looking Ahead

A key focus for 2026 will be leadership in the SoMA research space, with a new Research Leader moving into this role. Alongside this, the Centre will maintain its commitment to high levels of research activity. Changes to incentive frameworks at a national level have created an opportunity for researchers to chart new pathways alongside creative practice, such as developing journal writing skills and exploring new directions for their research activity. A further priority is building stronger networks of peer support among researchers, with more established staff taking opportunities to mentor those earlier in their academic careers.



Dr. Matthew Bannister
Postgraduate Theory Supervisor
School of Media Arts

Researcher Profile: Dr. Matthew Bannister

Dr. Matthew Bannister (PhD University of Auckland 2002) is postgraduate theory supervisor in Media Arts. He has supervised hundreds of Wintec Honours and Master's students studying a range of media disciplines, from music to design, visual art to communication.

His primary research focus is the critical analysis of popular culture (music and film) in terms of identity (gender, ethnicity, nationality), with a special interest in the popular culture of Aotearoa/New Zealand, referencing both global and local examples and considering their interrelationship. He has published four books: *White Boys, White Noise: Masculinities and 1980s Alternative Guitar Rock* (2006), *Eye of the Taika: New Zealand Comedy and the Films of Taika Waititi* (2021); and *Songs from the Front Lawn*, a volume in the 33 1/3 series on "classic" albums.

He is presently co-authoring a book on identity in popular music biopics with a UK-based scholar, Ewa Mazierska, to be published by Bloomsbury. The book considers different kinds of identity (gender, ethnicity, nationality, genre) in relation to biographical films about popular musicians; how music biopics relate to other film genres, and "star" discourse – the construction of celebrity in popular music and film.

In a different vein, he recently published work on Taika Waititi's *Hunt for the Wilderpeople* in the light of the Tom Phillips case, examining how myths of "men alone going bush" grip the local imagination but can also perpetuate patriarchy and gendered violence. This research was presented as a keynote at the ITP Symposium hosted by Wintec in December 2025.

Matthew combines such critical analysis with creative practice/participation, as he is also a songwriter and performer in a number of groups, including Sneaky Feelings, a Flying Nun act who was part of the "Dunedin Sound", and more recently *The Changing Same*, who perform regularly around New Zealand and release records through Powertool Records in Auckland, and solo material, such as 2013's *Evolver*, a re-imagining of the classic Beatles LP *Revolver* (1966), which was widely reviewed. He also plays with a ukulele group, the Strumbles, which combines women and men, Pākehā, Māori and Pasifika, in an inter-gender, multicultural collaboration.



Emily Russell
Academic Staff Member
School of Media Arts

Emerging Researcher Spotlight: Emily Russell

Emily has a professional background in graphic design and illustration.

Her research interests focus on sustainable consumption and reducing environmental impact. Her practice-based research explores how material selection, production methods, and design processes can support more sustainable approaches within graphic design. These ideas are demonstrated in *Worn Well*, a 136-page limited-edition book that incorporates environmentally conscious design choices, including the use of stone-based paper (Rock stock), repurposed materials, and binding methods that highlight craftsmanship. The publication also draws on visual references from Aotearoa's natural landscapes to reinforce themes of sustainability and longevity.

A key achievement for Emily Russell in 2025 was the design of publication, *Worn Well* with Rebekah Harman, published by Ramp Press. The publication examines clothing longevity and challenges contemporary patterns of overconsumption by highlighting stories and data relating to garments that are frequently worn, loved, and maintained over time. Building on this research, Russell and Harman are currently collaborating with the Waikato Museum to develop an exhibition that presents key themes gathered from Waikato residents. The exhibition aims to encourage greater awareness of sustainable clothing practices and support conversations around extending garment life cycles.

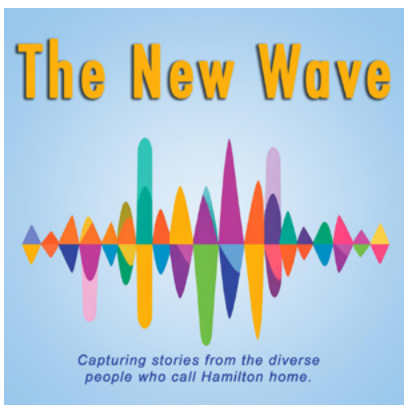




Rebekah Harman and Emily Russell
Worn Well



Dr. Matthew Bannister
The Dark Backward



Cate Prestidge, Paul Nelson and Abby Dalgety
The New Wave

Funding

The following projects all received Contestable Research Funding (>\$2000).

- **Project lead:** Rebekah Harman
Collaborator: Emily Russell
Worn Well
- **Project lead:** Dr. Patricia McClunie-Trust
Collaborators: De Cleaver, Rebecca Giles, Dr. Suzie Belcher, Dr. Katrina Fyers
CHASP Research Team – support for multiple research projects
- **Project lead:** Alroy Walker
Collaborator: Jon Clarke
He Ipukarea
- **Project lead:** Rory Christopherson
Exploring Peoples' Lived Experiences of Working with Osteoarthritis in Aotearoa New Zealand – A Qualitative Study
- **Project lead:** Nicolas Sandoval
Collaborator: Aishath Naila
Investigation of appropriate raw materials for manufacturing bioplastic bags in the Maldives
- **Project lead:** Dr. Maryam Moridnejad
Assessing the Social, Economic, and Environmental Impacts of Water Metering in Hamilton: Public Perception and Policy Implications
- **Project lead:** Dr. Shafiqur Tito
Collaborators: Sarla Kumari, Dr. Sina Enteshari
Te Puna Hiko – Community Microgrid for Energy Resilience and Sustainability
- **Project lead:** Dr. Suzie Belcher
Collaborator: Frans van der Merwe
Landing Biomechanics with Ball in Hand
- **Project lead:** Toni Herangi
Collaborators: Mason Holloway, Tamsin Green
Aka Kumara (phase one)
- **Project lead:** Dr. Matthew Bannister
The Dark Backward album (release)
- **Project lead:** Dr. Russell Best
Collaborator: Rhys Macpherson
Quantification and interaction of health and performance characteristics in New Zealand apprentice flat and jumps jockeys: a longitudinal investigation and evaluation
- **Project lead:** Chathurika Samarakoon
Development and optimising a method for fast detection of cheese maturity using colour
- **Project lead:** Cate Prestidge
Collaborators: Paul Nelson, Abby Dalgety
The New Wave – stories from Hamilton's migrant community
- **Project lead:** Dr. Nick Braae
Collaborators: Megan Rogerson-Berry, Debbie Nisbet, Jon Clarke
End of Year Music Orchestra Concert



“Having time and space away from my other role with no distraction was great.”

Writing Retreat

In September the Research Office organised a writing retreat for Wintec kaimahi across the organisation wishing to work on specific projects, uninterrupted, over three days.

It was designed to give researchers space, time, and, most importantly, nourishment. We were fortunate to welcome back Gail Pittaway who has facilitated these retreats for over a decade. Her extensive expertise makes her both an excellent editor and a valuable sounding board. The Research Office supplied the meals and visited several times, which encouraging participants to feel part of the research programme. On the first day, the Research Office also gave an update about the future of research reporting and some changes that lie ahead.

This year there were sixteen participants, the highest number ever. To begin, each researcher had the opportunity to talk through and plan their approaches in projects ranging from engineering, through education to ESOL and so many more. There were several researchers working on higher qualifications for Masters and PhD theses, and others working on new or revised articles to be sent away for publication in professional and international journals. The level and calibre of outputs and commitment was extremely high.

Here's what a few of the participants had to say about the retreat:

- “Having time and space away from my other role with no distraction was great.”
- “It was wonderful to have the opportunity to work on research for two days without the rest of our lives intruding!”
- “What was special was the opportunity for co-authors to work together in a small room so that we could talk to each other without disturbing others.”
- “I loved having no other responsibility than to concentrate and having food and drinks available regularly that I didn't have to think about organising.”
- “There was precious time talking to colleagues and to Gail about our research and future plans.”



Ethics

All research involving human participants conducted at Wintec requires an appropriate level of ethical approval. Ethical review is administered by the Research Office and overseen by Wintec's Health Research Council (HRC) accredited Human Ethics in Research Group (HERG).

Low Risk Ethics applications are reviewed by the HERG Chair, a Research Office delegate, and, where required, a HERG subject matter expert. Full Ethics applications are considered by the full HERG committee at its monthly meetings.

During 2025, HERG reviewed a total of 71 ethics applications submitted by Wintec and Te Pūkenga kaimahi and ākonga. The committee met on nine occasions and approved 17 Full Ethics applications. In addition, the HERG Chair and Research Office delegate approved 54 Low Risk Ethics applications outside of the scheduled committee meetings.

The majority of Full Ethics applications were submitted by ākonga, predominantly from the Centre for Sport Science and Human Performance, while academic staff accounted for most Low Risk applications. The overall quality of submissions continues to improve, with many applicants seeking guidance from the Research Office prior to submission. As a result, only minor amendments were typically required before ethical approval was granted.

HERG Members included:

- Chair: Gillian Spry – recently retired Lawyer
- Dr. Peter Maulder – Research office, Kaihautū Rangahau
- Leni Lolohea – Oire Pacific
- Melisa Fotu – Oire Pacific
- Dr. Patricia McClunie-Trust – Centre for Health and Social Practice
- Jenny Song – Centre for Health and Social Practice
- Dr. Matthew Bannister – School of Media Arts
- Dr. Joy Wang – Centre for Languages
- Dr. Sara Farahani – Centre for Applied Science and Primary Industries
- Adrian France – Centre for Business and Enterprise
- Amy Pearce – Centre for Sport Science and Human Performance
- Aimee Pilkington – Research office



Research Excellence: Highlights of the year

Centre for Applied Science and Primary Industries

Badiei, M., Asim, N., **Ghoreishi, K.**, & Mohammad, M. (2025). Pyrolysis for sustainable solid waste management in developing countries: Opportunities and challenges. *Journal of Material Cycles and Waste Management*, 28(2), 834-854. <https://doi.org/10.1007/s10163-025-02465-4>

Samarakoon Mudiyansele, C. S. S., Farouk, M. M., Realini, C. E., Kantono, K., & Hamid, N. (2025). Determinants of purchase intention for meat-based chilled ready meals in New Zealand: A consumer behaviour perspective. *Foods*, 14(6), 1038. <https://doi.org/10.3390/foods14061038>

Sandoval, N., Denyer, K., Dowling, S., & Smedts, H. (2025). Assessment of pyroligneous acid as a pest bird deterrent in a New Zealand pest-exclusion fenced sanctuary. *New Zealand Journal of Ecology*, 49(1), 1-7. <https://doi.org/10.20417/nzjecol.49.3598>

Centre for Business Enterprise

Fester, A., & **Thrikawala, S. S.** (2025). Why can't you help me? Pragmatic and cultural competence advice for *EAL background **WSBO. *New Zealand Studies in Applied Linguistics*, 31(1), 65-88. <https://doi.org/10.59690/fm90142>

Centre for Education and Foundation Pathways

Fenmachi, E. (2025). Concepts of early childhood learning and development in Cameroon, West Africa. *Early Years*, [Online first], 1-13. <https://doi.org/10.1080/09575146.2025.2566366>

Wang, J. Y., **Mischefski, A.**, & Yap, J. R. (2025). Revisiting reading aloud through the lens of holistic reflective practice: A trioethnographic inquiry. *rEFlections*, 32(2), 712-731. <https://doi.org/10.61508/refl.v32i2.281469>

Centre for Engineering and Industrial Design

Al-Rawi, M., Belkacemi, D., & Khashram, M. (2025). Aortic dissection during and after investigation using CFD modelling. In ASME (Ed.), *International Mechanical Engineering Congress and Exposition (IMECE)*, Vol. 4: Biomedical and Biotechnology Engineering (pp. 1-6). <https://doi.org/10.1115/IMECE2024-140398>



- Al-Rawi, M.,** Belkacemi, D., & Al-Jumaily, A.M. (2025). Comparison of laminar and turbulent k-omega shear stress transport models under realistic boundary conditions for arterial stenosis. In ASME (Ed.), *International Mechanical Engineering Congress and Exposition (IMECE)*, Vol. 4: Biomedical and Biotechnology Engineering (pp. 1-6). <https://doi.org/10.1115/IMECE2024-139437>
- Du, Z., Brightwell, R., Zhou, H., & **Aghazadegan, L.** (2025). Global approaches to ground improvement in liquefaction-prone areas: techniques guidelines, and recommendations. In 2025 NZSEE Annual Technical Conference (Ed.), *Tāmaki Makaurau Auckland* <https://confer.eventsair.com/nzsee2025/>
- Kamyabi, L., **Tito, S. R.,** Soltic, S., Nieuwoudt, P., & Lie, T. T. (2025). Feedforward neural network assisted NILM method applied on different households and appliance groups with selectable balanced data. In Mahmud, M., Kaiser, M. S., Kamruzzaman, J., Iftekharuddin, K., Ahad, M. A. R., Zhong, N. (Ed.), *Applied Intelligence and Informatics*, Vol. 2607 (pp. 128-140). https://doi.org/10.1007/978-3-032-04657-4_9
- Moridnejad, M.,** Madani, M., & **Aghazadegan, A.** (2025). The three waters reform in New Zealand: Learning from local government narratives for improved governance. *Water Policy*, 27(12), 1326. <https://doi.org/10.2166/wp.2025.059>
- Raju, S.,** Kularatna, N., Wilson, M., & Steyn-Ross, A. (2025). Supercapacitor based TMS pulse generator design-Experimental results versus MATLAB MOSFET simulation model. *2025 IEEE Applied Power Electronics Conference and Exposition (APEC)*.
- Raju, S.,** Steyn-Ross, A., Wilson, M., & Kularatna, N. (2025). Dynamic nonlinear resistance model for a power MOSFET in an oscillatory RLC circuit. *IEEE Transactions on Circuits and Systems I: Regular Papers*, 72, 2792-2803. [10.1109/TCSI.2025.3542754](https://doi.org/10.1109/TCSI.2025.3542754)
- Saleem, M. H., Taha, M., Rehmani, M. A. A., **Tito, S. R.,** Soltic, S., Nieuwoudt, P., Pandey, N., & Ahmed, M. D. (2025). A comprehensive review of machine learning and deep learning models for non-intrusive load monitoring: Performance, analyses, practical insights, and emerging trends. *Applied Intelligence*, 55, 1020. <https://doi.org/10.1007/s10489-025-06921-4>

Centre for Health and Social Practice

- Bowlin, N. H., & Song, J.** (2025). Perceptions of rongoā Māori among third-year nursing students in Aotearoa New Zealand. *Kaitiaki Nursing Research*, 16(1), 8-14. <https://kaitiaki.org.nz/2025/11/perceptions-of-rongoa-maori-among-third-year-nursing-students-in-aotearoa-new-zealand/>



- Chu, J. T. W., Singh, N., McCormack, J., **McLachlan, A. D.**, Dymus-Kurei, J., Wilson, H., Marsh, S., & Newcombe, D. (2025). Caregivers' experiences with diagnosis of fetal alcohol spectrum disorder: A life-course approach. *Journal of Intellectual & Developmental Disability*, 50(4), 424-433. 10.3109/13668250.2025.2459822
- Ferreira, A., Vaughan, B., Draper-Rodi, J., Muddle, L., Treffel, L., McIntyre, C., Fleischmann, M., Cerritelli, F., **Sampath, K. K.**, & Steel, A. (2025). Prevalence and profile of New Zealand osteopaths treating people experiencing headaches and migraines. *Journal of Complementary and Integrative Medicine*, 22(3), 501-511. <https://doi.org/10.1515/jcim-2024-0283>
- Gascoigne, J. H., Best, R., Macpherson, R., **Belcher, S.**, & **Van der Merwe, F. H.** (2025). Physical demands and positional requirements of semi-elite female netball players through GPS unit-based accelerometers. *Journal of Sport and Exercise Science*, 9(1), 21-33. <https://doi.org/10.36905/jses.2025.01.03>
- Gregory, T., Taylor-Bragge, R., **McLachlan, A.**, Yellow Bird, M., & Perreault, M. (2025). Indigenous epistemologies, two-eyed seeing, and the philosophy, practice, and applications of brain sciences. In Perreault, M & Illes, J (Eds.), *Crosscultural Perspectives on Mind and Brain* (pp. 3-63). Elsevier.
- Iosis Swis Team, & **Crawford, H.** (2025). *What is a SWIS and what do they do?* Iosis.
- Jack, T., & **McClunie-Trust, P.** (2025). The lived experience of gout: A qualitative meta-synthesis. *Kaitiaki Nursing Research*, 16, 16-31. <https://kaitiaki.org.nz/wp-content/uploads/2025/10/KNR-vol-16-no-1-Lived-Experience-of-gout.pdf>
- Jarden, R., **McClunie-Trust, P.**, Macdiarmid, R., Jones, V., Marriott, P., Shannon, K., Dewar, J., Clout, S., Macnaught, L., & Winnington, R. (2025). *Motivations, expectations, and experiences of graduate-entry pre-registration Masters' students in the health professions: An umbrella review protocol*. National Institute for Health and Care Research.
- Jarden, R., Macdiarmid, R., **McClunie-Trust, P.**, Jones, S., Dewar, J., Marriott, P., Turner, R., Clout, S., & Winnington, R. (2025). Measures of graduate entry nursing student experiences during their entry to practice program: A scoping review. *Teaching and Learning in Nursing*, 20(4), e1308-e1314. <https://doi.org/10.1016/j.teln.2025.05.001>
- Kovanur Sampath, K.**, Ann Rong, Y., & **Brownie, S.** (2025). Culturally appropriate care for Indigenous people with type 2 diabetes mellitus (T2DM)—A scoping review. *Primary Care Diabetes*, 19(3), 238-245. <https://doi.org/10.1016/j.pcd.2025.02.008>



- Kovanur Sampath, K.,** Papannarao, J., Roberts, E., Schwenke, D., & Katare, R. (2025). MicroRNAs involved in neuropathic pain can be measured in saliva. *British Journal of Anaesthesia*, 134(2), 584-586. <https://doi.org/10.1016/j.bja.2024.11.028>
- Kovanur Sampath, K., Smith, T., Belcher, S.,** Farrell, G., Fryer, G., Vaughan, B., & **Moran, R.** (2025). Diagnosing and treating upper back pain: Insights from New Zealand's manipulative physiotherapists and osteopaths. *Journal of Manual & Manipulative Therapy*, 33(2), 149-157. <https://doi.org/10.1080/10669817.2024.2438196>
- McIntyre, C., Draper-Rodi, J., **Kovanur Sampath, K.,** & Vaughan, B. (2025). Leadership and capacity building in international osteopathic research: Introducing strengthening osteopathy leadership and research (SOLAR) program. *International Journal of Osteopathic Medicine*, 56, 100755. <https://doi.org/10.1016/j.ijosm.2025.100755>
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- Michael, R., & **Mercer, C.** (2025). Staff perceptions and experiences of palliative care in aged residential care facilities: A research brief. *Kaitiaki Nursing Research*, 16(1), 37-40. <https://kaitiaki.org.nz/kaitiaki-nursing-research-november-2025/>
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Watane, A., **Belcher, S.**, Ward, D., Webb, E., & **Kovanur Sampath, K.** (2025). "I'm sorry, I can't. I feel the tears coming on already": The views of mothers, midwives and physiotherapists on postpartum recovery in New Zealand. *New Zealand Journal of Physiotherapy*, 53, 19-31. <https://doi.org/10.15619/nzjp.v53i1.413>

Centre for Information Technology

Abuaiadah, D., Bosu, M., & Jayalal, S. (2025). Revisiting the concepts of basis path testing. Information Systems for Intelligent Systems. ISBM 2024, *Lecture Notes in Networks and Systems*, 1255, 503-515. https://doi.org/10.1007/978-981-96-1747-0_41

Jayasiri, J. M. S., & **Jayalal, S.** (2025). The improving accessibility of e-learning systems for visually impaired students in Sri Lanka: An evaluation based on WCAG principles. *Vallis Aurea: Journal of Sustainable Development and Innovation*, 11(1), 1-16. <https://doi.org/10.62598/JVA.11.1.1.12>

Jayawardana, B. C., Withanaarachchi, A., **Jayalal, S.**, & Abeysekara, R. (2025). A systematic literature review of evaluating the accuracy of NVivo, R and large language models in thematic analysis of interview data: A comparative study. *3rd Desk Research Conference (DRC 2025)*, University of Kelaniya, Sri Lanka (pp. 170-183). <https://conf.kln.ac.lk/drc/media/attachments/2025/12/17/all-of-tc1.pdf>

Kumesh, T., **Jayalal, S.**, & Wijayasiriwardhane, T. K. (2025). Transforming software size estimation with prompt engineering: A ChatGPT-based framework for component-based systems. *International Journal on Advances in ICT for Emerging Regions (ICTer)*, 18(2), 1-10. <https://doi.org/10.4038/icter.v18i2.7286>

Samaradiwakara, D., & **Jayalal, S.** (2025). Enhancing mobile wallet usability through developer guidelines: Addressing challenges in the Sri Lankan market. *5th International Conference on Advanced Research in Computing (ICARC)* (pp. 1-6). <https://ieeexplore.ieee.org/document/10962867>



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Centre for Languages

Fester, A., & Thrikawala, S. (2025). Why can't you help me? Pragmatic and cultural competence advice for *EAL background **WSBO (*English as an additional language **Women who are small business owners). *New Zealand Studies in Applied Linguistics*, 31(1), 66-88. <https://doi.org/10.59690/fm90142>

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Kearney, C. P. (2025). Supporting learners with emerging English literacy: "Find a role that gives each learner mana and constantly encourage them". *Scope: Work-Based Learning*, 7, 38-46.

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Ryan, J. (2025). Design Principles for ELT Video Drama: A case study. In A. Leis & M. Wilson (Eds.), *Screen media in foreign language education* (pp. 160-181). Candlin & Mynard.

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Centre for Sports Science and Human Performance

Best, R., & Pearce, J. (2025). Prevalence and severity of gastrointestinal symptoms in recreational and elite Equestrian athletes in training and competition: an exploratory analysis. *International Journal of Equine Science*, 4(1), 11-20. <https://doi.org/10.64292/ijes.149>

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Williams, D. E. (2025). *How can Tangata Tiriti Authentically weave mātauranga Māori into teaching practice in Outdoor Education*. Master's thesis, Waikato University.

School of Media Arts

Bannister, M. (2025). 'Can't lie ... it's not an original': Hunt for the Wilderpeople and Antipodean camp. *Studies in Australasian Cinema*, 18(2), 172-186. <https://doi.org/10.1080/17503175.2025.2582880>

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Artifact / Object / Craftwork

Cruse, J., & **Rogerson-Berry, M.** (2025). *Archiving the taonga pūoro of Hinewirangi Kohu Morgan*. [Artefact/Object/Craftwork]. New Zealand: Wintec.

Williams, G. C. A. (2025). *The wordless monument (to Wu Ze Tian - sole female emperor of China, 705AD)*. [Artefact/Object/Craftwork]. New Zealand: The Sculpture Park at Waitakaruru Arboretum, 207 Scotsman Valley Road, Tauwhare, Hamilton.

Composition

Long, J. H. (2025). *Satellites are falling* (EP). Fiercely Independent Records.

Long, J. H. (2025). *Warmer than blue* (EP). Fiercely Independent Records.

Bannister, M. (2025). *The dark backward* (Album). Powertool Records.

Design

Green, T. A. (Curator). (2025). *WSA Members Exhibition*. [Curatorial Exercise]. Arts Post: Aotearoa New Zealand.

McConnell, L. O. (Curator), **Foster, J.** (Curator), & Winstanley, L. (Curator). (2025). *Hear us out 2024 international exhibition*. [Curatorial Exercise]. Street Activation/Exhibition: Hamilton, New Zealand, 23 May - 4 September.

McConnell, L. O. (Curator), **Foster, J.** (Curator), & Winstanley, L. (Curator). (2025). *Hear Us Out 2025 Mini International Exhibition*. [Curatorial Exercise]. The Atrium, ANZAAE Conference 2025: Hamilton, New Zealand, 14-16 April.

Roberts, A. (Curator), & **Green, T. A.** (Curator). (2025). *Whata kura*. [Curatorial Exercise]. Ramp: Aotearoa New Zealand.

Russell, E. (2025). *Worn well: Tales of clothing that inspire longevity*. [Design Output]. Ramp Press.

Exhibition

McConnell, L. O. (Artist), **Foster, J.** (Artist), & **Mayall, J.** (Composer). (2025). Digital Realms: Contemporary 3D Illustration and Animation. [Indefinite, 2019. [Manipulated renders of a digital 3D model, set of 3] Sempiternal, 2019. [Sound-responsive digital animation, 30 minute loop] Solo, 2016. [Projection mapped digital animation on concrete cathedral, 5 minutes]]. Group exhibition. Curated by J. Kolpakov, Gallery 210@FAB, St. Louis, USA, 25 August - 17 October.



Macpherson, P. K. W. (Artist). (2025). Critical Mass. [Being and non being (found objects) Murmurs (field recordings) Deadpools (glass) Displaced (acrylic on wood) Cross section (cyanotype) Kakepuku Enso 3 (ink on paper) Portrait of a lake as a dying man (perspex and water)]. Group exhibition. Curated by **Megan Lyon** and Julia Christie, Ramp Gallery, Hamilton, NZ 16 October 2025 - 14 November 2025.

McConnell, L. O. (Motion Designer). (2025). 843 to the 855. [Whetū Pou (animated drawings on a four sided digital display) Awa (animated drawings on a digital display)]. Group exhibition. Curated by L. Wilson, and J. Primmer, Te Whare Taonga o Waikato Museum & Gallery, Hamilton, New Zealand, 21 June - 3 August.

Harman, R. (2025). Analogue (n.). [My great-grandmother's doily; Medium: Photogram]. Group exhibition. Curated by C. McQuarrie, and S. Waugh, The Engine Room, Massey University, Wellington, New Zealand, 22 July - 9 August.

Green, T. A. (Artist). (2025). [Pink chair, horse pond, merman: Nap time (Series), C-Type photographic print 8 x 10]. Group exhibition. Curated by Adrian Cook, Te Aroha November 1 -2.

Film/video

Long, J. H. (Sound Design). (2025). Matua [Film/Video]. New Zealand: Flash As Films. <https://vimeo.com/1145483461?share=copy&fl=sv&fe=ci>.

Other

Prestidge, C. (Producer and Host), & **Nelson, P.** (Editor). (2025). *The new wave: A podcast capturing the diverse stories of migrants to Kirikiriroa*. Series 1. Free FM (Access Media). <https://www.accessradio.org/programme-page/2002ad1d-7e92-414f-a33e-7c63937b4f26>.

Performance

Booth, J. (Actor, Singer). (2025). Cats! [Performance]. Clarence Street Theatre, Hamilton, New Zealand, July 26 - August 9.

Braae, N. (Arranger and Performer), **Rogerson-Berry, M.** (Arranger and Performer), **Nisbet, D.** (Composer and Performer), & Clarke, J. (Arranger and Performer). (2025). *Wintec Orchestra Extravaganza of New Compositions and Arrangements*. [Performance]. The Meteor Theatre, Hamilton, New Zealand, The Meteor Theatre.

Chuen, K. (Director). (2025). *Songs in the key of Luke - A song cycle of music by Luke Di Somma*. [Performance]. Hamilton Arts Festival, Hamilton, New Zealand, 22 February - 2 March, Bold Theatre.

Mayall, J. M. (Performer), Horo, H. (Performer), Balzer, R. (Performer), & Moore, M. (Performer). (2025). Ihirangaranga at WERO. [Performance]. Gallagher Academy of Performing Arts, Hamilton, NZ, February 2025, Orowaru Arts.

