The 2015 WelTec Research Report was designed and produced by our talented graduates in the Bachelor of Creative Technologies (2015).

Overall Design and Production by Erin McGarvey (Top student, Bachelor of Creative Technologies, 2015)
mcgarvey.erin@gmail.com

Photography Ash Rockett (Bachelor of Creative Technologies, 2015)
ashrockett19@gmail.com

Content by Lisa Wong, Jacquie Harper and Beatrice Dias,
Research and Enterprise, WelTec
Kia Ora,

I am excited to present the 2015 Research Report which showcases the diverse areas of research and development activity undertaken by our staff.

Research at the Wellington Institute of Technology (WelTec) is committed to making a significant contribution to teaching and learning at our institution, to our business and industry partners, to the wider economy, and to society.

The research featured in our ninth report demonstrates the innovative ideas, beneficial outcomes and the practical applications of our research; and how we are enhancing our reputation in our specialist areas. This work is in collaboration with our strategic partner, Whitireia, the Metro ITP group, universities, and outside the tertiary education sector.

The following pages highlight the significant and valuable contribution made by our researchers to our research and innovation environment from publications and resource development, through to prototype design and manufacture.

Nāku noa, nā,

Chris Gosling
Chief Executive
At WelTec we are committed to enhancing knowledge and innovation through our research. Along with the ongoing success of our established researchers, 2015 has seen a raft of new research initiatives from our emerging research staff. Through real world, impact-driven research and practical innovation we seek to be knowledge leaders in our disciplines, inform our teaching, and deliver benefits to both our industry partners and the broader community.

By engaging in research our staff ensure they are at the forefront of the latest developments in their field, from social enquiry and community engagement through to innovating practical solutions for business.

The 2015 Research Report showcases the diversity of valuable research contributions made by our staff across the Schools and research disciplines, and illustrates the interwoven themes that drive our research endeavours.

I would like to take the opportunity to congratulate our researchers for their dedication to the research platform at WelTec.

Discovery, problem-solving, critical thinking and creativity are the cornerstones for great research and inspiring learning environments.

Well done!

Dr Jacquie Harper
Research and Enterprise Manager
Successful societies benefit from the evolution and integration of cultural and social support frameworks that improve the health and wellbeing of individuals and communities. WelTec's research staff are investigating the impact of social services, pastoral care, cultural identity and community support on the overall wellbeing and success of members of society, our youth and learners.
The treatment of addictions has traditionally been dominated by psychological approaches. With the changing diversity of New Zealand’s population and a shift in belief systems, health services support workers need to be aware of differing views on addictions and alcohol and drug usage. Tony Carton’s research explores the shift from western to non-western belief systems in the addiction and counselling workplace. This innovative research approach to counselling seeks to highlight the potential benefits of alternative approaches to addressing addiction by casting a sociological perspective over the area of alcohol and other drugs, use, abuse, misuse and addictions.

The sustainability of societies relies on supporting the health and wellbeing of our young people. An initiative designed to tackle alcohol use by young people was launched at WelTec by the Regional Public Health’s Community Action on Youth and Drugs (CAYAD). As part of this initiative, Mirjana Vilke and Damien Pivac, together with Anna Tonks from CAYAD, evaluated the effectiveness of using social norm marketing to challenge the perceptions of alcohol consumption. The outcomes of this work indicated that the approach strongly encouraged students to reflect on their own drinking practices in a positive environment and opens up the door to developing more initiatives of this nature in the future.

The lives of most young New Zealanders are influenced by socio-cultural ideas and lifestyles of the Western and Māori and Pasifika communities. Fiona Beals explores how a mix of approaches from both worlds could be effectively combined to find new, positive, and powerful approaches to youth development practice and youth work, and to enhance the lives of our young people.

A major focus for our Māori and Pasifika researchers is the impact of cultural and community involvement in supporting our Māori and Pasifika learners. By looking at how meeting with whanau, undertaking course components on the Marae, and culturally-directed mentoring and pastoral care impacts on student completions, Hinemoa Priest, David Lomax, Susan Luke and Rangi Luke are identifying best practice to optimise positive learning experiences and success. Tavita Filemoni is looking at how Pasifika learners benefit from wider support from the Pasifika community through delivery of pastoral care services by a Church minister on campus, thus establishing a community environment of care. Arden Perrot has been exploring the ways that Pasifika students overcome academic failure at secondary school to transform their lives to become successful postgraduate students at university. This work has allowed Arden to propose a model based on the students’ positive influences that he and his colleagues can use to enrich their teaching.

Researchers in Youth And Well-Being:

Mirjana Vilke – School of Health and Social Services
Damien Pivac – School of Health and Social Services
Tony Carton – School of Health and Social Services
Fiona Beals – School of Health and Social Services
Arden Perrot – School of Health and Social Services
Hinemoa Priest – Te Whare Awhina
Tavita Filemoni – Pasifika Centre
Lisa Wong – Research and Enterprise
John Horrocks – WelTec Research Associate
At WelTec we foster technology-based research, development, and innovation. Researchers are building research, development and testing capabilities that support both institutional and industry-led initiatives. From how to approach big data management through to new product design and prototype manufacture, technology is a fundamental component of our applied research platform.
Establishing a platform for designing mobile robots opens up opportunities with high technology industry partners in manufacturing, or creative animatronics projects. Frank Beinersdorf is designing, building and testing prototypes of mobile robotic creatures capable of mimicking real-life creatures that can travel across difficult terrain. His research has the potential to make its mark in the high value manufacturing industry where there is a demand for exploratory craft for use in challenging environments.

Accurate detection and tracking of pedestrians and vehicles is paramount for driver assistance systems designed to improve driver and public safety. In this case the timing of the warning to brake is critical, too early and it can distract the driver or too late and accidents can happen. Waqar Khan's research aims to improve the accuracy of driver assistance systems using stereo-vision as a cost-effective solution to delivering improved assisted braking response times for the highly competitive automotive industry.

Our use of smartphone and web applications is generating ever-increasing amounts of information. The fast paced change in information gathering and dissemination means controlling the use of this information is a challenge.

Steve McKinlay’s research asks the question “Should the public be able to use private information in a way that was originally unintended?” By challenging traditional thought around information management and privacy, Steve is raising the issues around the untethered use of this information and highlighting the potential need for the development of ethical guidelines.

Exposing, sharing and connecting information using the web can enable us to access and use it for a number of wider applications that may not have been previously considered. By using next generation of web technology, Reza Moosa is developing information management systems that will allow institutions to centralise and connect information that they wish to share with a more open and user friendly interface. By creating seamless links between the information, this research uses the “next generation of web” approach that allows information to be viewed in a dramatically new and different way.

WelTec's staff are involved in a range of research and development projects in partnership with external industry partners and working across our different disciplines. Creative Technology staff member Darren Ward is working with engineer Frans Weehuizen and the Hutt City Council to design and develop a prototype solar mobile phone charging station, while Frans Weehuizen is also involved in developing a prototype simulator for use in training health professionals. The development of testing platforms for industry is also an active area of research and development at WelTec with Martin Kelly successfully delivering a robust product testing platform for plumbing industry partners.

Researchers in Technology

Frank Beinersdorf – School of Engineering
Frans Weehuizen – School of Engineering
Steve McKinlay – School of Business and IT
Reza Moosa – School of Business and IT
Waqar Khan – School of Business and IT
Darren Ward – School of Creative Industries
Martin Kelly – School of Construction
At WelTec, our staff are encouraged to inform the evolution of their creative practice through the exploration of new theories, concepts and methodologies. Practice-based research enables our creative researchers to challenge the conventional concept of society and familiarity and, investigate the translation of traditional cultural practices into a contemporary context.

Everyday objects and their material existence are a common focus of art practice. In their workshops and studios our staff bring together improvised collections and combine objects in unusual ways in a process called bricolage. This is the creative approach embraced by Malcolm Doidge, as part of his Master of Fine Arts. Through the exhibition work “Conversations with Strangers: Performing the Broom and the Bricoleur”, Malcolm investigates the reinterpretation of sculpture using performance and experimentation with camera technologies and a yard broom to explore DIY consumer culture and public perception.

Bricolage is also integral to the interdisciplinary visual arts practice of Adi Brown which centres on examinations of the uncanny. This research experiments with the idea of the familiar made
strange through eccentric juxtapositions of everyday materials, objects and images. Different methods of play are used to examine uncanny aesthetic using two and three dimensional works constructed from everyday materials. Adi presents her work in exhibitions under the title ‘Uncanny Urges’ and has been working with this concept to produce photographic and object-based art works since 2012.

Supanun Supphawut looks to explore the relationship between cultural identity and letterform (shape) in a modern context. His work seeks to re-interpret the expression of his native Thai language using new forms of technology. By taking the concept of the loop which is prominent in Thai letterform, and weaving in historical and cultural contexts, Supanun has been developing contemporary ways to manifest the language as different visual forms in his work “ฅ.ฅฅ: A loop of Siam” exhibited at the Master of Fine Arts exhibition “Exposure”.

A primary belief which impacts on the research of our creative practitioners is that the modern world has lost touch with, and respect for, the natural world. Gareth McGhie’s art practice is influenced by this view and reflected in his contemporary Māori carvings, intended for personal adornment. He continually evolves his practice by combining traditional materials with new tools, materials and processes. Darren Ward’s creative research is also expressed through contemporary interpretation of Māori sculpture and design. Studying aesthetics around the city, he explores how Māori art is expressed through unique materials and forms in the modern environment.

Communities are the cornerstone of society. Grant Corbishley has been investigating the impact of art as a conduit for re-establishing the connectivity between people within a community and the community with their local environment. By initiating numerous collaborative art and design projects in the Houghton Bay area of Wellington, and creating a narrative around the people and their interactions with his research installations, each other and the environment, Grant Corbishley has been investigating how his research practice stimulates a community of care to ensure enduring community stewardship into the future.

Researchers in Creativity

Malcolm Doidge – School of Creative Industries
Adi Brown – School of Creative Industries
Supanun Supphawut – School of Creative Industries
Gareth McGhie – School of Creative Industries
Grant Corbishley – School of Creative Industries
Built Environment researchers are exploring new approaches in the construction of housing for New Zealanders that delivers both a sustainable and safe environment. Building methods that are safe in earthquake-prone areas, and easily repairable is very much the focus for Richard Foreman’s research. Richard’s current focus is investigating the suitability of using post-tensioned timber in laminated timber buildings in New Zealand’s challenging conditions.

Following natural disasters, there is usually a demand for emergency housing. Bruce Haniel believes the answer lies in the development of a method of constructing simple low-cost houses that deliver high quality and performance without the need for specialist building skills. By developing an interlocking jointing system that is rapid and easy to assemble, the pre-cut houses would be able to be assembled by non-builders, thus allowing for a more rapid response in delivering emergency housing following major disasters as well as alleviating situational housing shortages.

The increasing aged care population in New Zealand is creating a demand for housing that will meet the needs of an older age group. To meet this demand, Reo Tanaka is investigating approaches for designing sustainable housing complexes that provide quality-of-life care for their aged residents. His research looks at how residential complexes can be designed and
built with low-impact on the environment incorporating sustainable materials and re-using resources.

**Business Sustainability**

With tourism now being the country's number one economic earner, looking after our visitors is of major benefit to New Zealand. Recognising the needs of independent Chinese travellers who visit New Zealand will help tourism providers ensure they can effectively cater for increasing growth in this expanding market. Adam Ransfield and Jamie Smiler are looking to provide valuable information to industry through their study into the needs and travel experiences of independent Chinese travellers. The results of this work will help the tourism industry better serve this growing group of travellers, guaranteeing sustainable benefits for New Zealand's tourism industry.

Customer safety is an important component in the organization and successful provision of activities, events and services, from major sports events to holidaying on a cruise ship. Cyril Peter is currently investigating the perception of acceptable security from the consumer viewpoint to help inform businesses of customer expectations around personal safety. Through interviews with customers, Cyril has identified that they may have a more relaxed view around their safety than initially believed. Ongoing work will provide key information to compare regulatory requirements with individual expectations when developing appropriate safety guidelines to ensure best practice for best experience.

**Environmental Sustainability**

Ever thought about what happens to the waste that is generated at a major event in your city or region? By observing current waste management practices, Joany Grima and Leanne Nicholas are gathering information that will assist in the development of a minimum standard approach for sustainable waste management at events that can be adopted by local councils. Working with major stakeholders including event audiences, event organisers, and local councils, this is an opportunity to influence decision-makers and contribute to the development of sustainable best practice waste management methodology at New Zealand events.

Well-designed wetland areas such as Waitangi Park in Wellington city can be developed sustainably and have ecological and social features that the public can enjoy. Wetland areas have the potential to be used to manage large changes in stormwater levels. To identify new wetland areas suitable for effective water management we need to ascertain if there is sufficient capacity and efficiency to cope with high water levels and fluctuations in water quality. Induka Werellagama is using mathematical modelling to investigate whether new wetland areas have the potential for more effective stormwater management.

**Researchers in Sustainability**

Bruce Haniel – School of Engineering
Reo Tanaka – School of Engineering
Richard Foreman – School of Engineering
Induka Werellagama – School of Engineering
Adam Ransfield – School of Hospitality
Jamie Smiler – School of Hospitality
Leanne Nicholas – School of Hospitality
Joany Grima – School of Business and IT
Cyril Peter – School of Business and IT
As a provider of professional and trades training, vocational education is a key focus of research undertaken by our staff. This research platform aims to inform vocational teaching practice across the ITP sector by investigating how we teach, how students learn and, developing the tools and resources required for successful learning outcomes.
Language, Literacy and Numeracy

In any profession we find specialised language that needs to be mastered to communicate effectively in the workplace. Launched in 2014 in collaboration with Victoria University of Wellington, our “Language in the Trades” project led by James Mackay has been investigating the language of tutors and students, the vocabulary they use, and the diagrams and visual content in the text. Findings from this ongoing study are being used to develop teaching resources that support students to acquire the specialist language and vocabulary they need for their specific trade.

Misunderstanding critical information can lead to non-compliance and negatively impact on wellbeing. In the rapidly changing world of communication many New Zealanders do not have the wider literacy skills required to fully absorb and understand the plethora of information around them. Aleeshea Reid and Emma McLaughlin are working with support agencies to gain a better understanding of the literacy challenges faced by their clients. This knowledge will be used to inform organisations when developing appropriate strategies for communicating to their clients more effectively.

Many professions require basic levels of numeracy to succeed in a modern society where the ability to carry out calculations correctly and with confidence is essential to avoid negative outcomes arising from calculation errors. Our tutors and learning advisors have identified that many students have negative learning experiences and anxiety towards performing mathematical calculations. James Mackay, Mary Fawcett, Mervyn Protheroe and Fiona Breen are investigating the impact of maths anxiety on student performance. The goal of this research is to develop strategies and resources that improve numeracy skills and confidence to support successful teaching and learning.

Evaluation and environment

The development of a framework to gain a deeper insight of the learner and their learning methods helps to ensure a higher degree of educational success. Enabling students to identify gaps in their own learning and supporting them to develop strategies to achieve the learning outcomes of their course work has been the focus of Leah Seno’s research. As a result of Leah’s study, students have significantly improved their understanding of learning goals and their confidence in developing plans to reach those goals, leading to overall improved results.

Online learning in tertiary education has grown exponentially over the past decade. Maria Ulloa, Paula Foreman and Christine Jones are undertaking research that explores different aspects of online learning and the overall relationship with academic achievement. Looking at student engagement, participation and interaction will inform the continual development of the online environment. This will create successful and positive learning experiences and maximises engagement and academic success.

Teacher development

Professional development is key to ensuring that teachers have the latest tools and experience to teach effectively. Professional development often focuses on building the skills of new teachers with limited suitable opportunities being available to more established senior staff. Gerard Duignan is leading a multi-institutional study that is focussed on identifying the professional development needs of experienced teachers across different ITPs. The aim of this research is to inform organisations on the best ways to better support teachers to expand their capabilities and remain up-to-date.

Funding Acknowledgements - Ako Aotearoa National Project Fund, Ako Aotearoa Central Regional Hub Fund

Researchers in Education
James Mackay – School of Engineering
Mervyn Protheroe – Learning Commons
Fiona Breen – Learning Commons
Len Matautia – School of Construction
Leah Seno – School of Business and IT
Mary Fawcett – School of Health and Social Services
Maria Ulloa – School of Health and Social Services
Paula Foreman – School of Health and Social Services
Christine Jones – Education Technology
Gerard Duignan – Capability Development Unit
Aleeshea Reid – Capability Development Unit
Emma McLaughlin – Faculty Academic Unit
RESEARCH ACHIEVEMENTS

Researcher Award 2015

Dr Fiona Beals received the WelTec Researcher Award for 2015. Fiona is a prolific and innovative researcher who teaches on the Bachelor of Youth Development in the School of Health and Social Services. Since completing her PhD in 2006, she has consistently published her research in journals and books, and given numerous presentations. She has received recognition from government agencies, public organisations and community groups that have benefited from her research. In 2015, Fiona was the keynote speaker at the Pacific Inaugural Symposium for the Centre for Applied Youth Research in Hobart at the University of Tasmania.

Fiona continually integrates her research into community settings with outreach projects at churches, youth groups and major youth organisations. She demonstrates leadership and supports her colleagues through mentoring and through broader engagement with academic networks external to WelTec, and continually integrates her research into her teaching.

Staff Achievements

School of Creative Industries staff have been busy completing their postgraduate qualifications in 2015. Grant Corbishley completed his PhD titled ‘Stewardship: an ethico-aesthetic approach to uncertain futures in the Valley of the Wild’ in Art and Design at the University of Sydney; Malcolm Doidge and Supanah Supphawut both completed their Master of Fine Arts from Massey University, College of Creative Arts developing works for their final year exhibition and an accompanying egress; while Gareth McGhie completed his Masters qualification with Unitec Institute of Technology. Together with other staff they continue to exhibit their works in Wellington and overseas.

Congratulations to Exercise Science tutor, Phillip Silverman, who has been awarded a Summer Residency at the New York Academy of Art. Phillip has also been nominated for the Emerging Artist award at the NZ Art Show where some of his pieces will be exhibited.

School of Business and Information Technology tutor, Steve McKinlay was appointed as a committee member of the International Association for Computing and Philosophy (IACAP).

School of Health and Social Services, Bachelor of Youth Development tutor, Arden Perrot completed his Master of Arts in Education from Victoria University of Wellington studying Pasifika resiliency in the education system. Auckland-based Counselling tutor, Michelle Holt is undertaking her PhD study at Auckland University of Technology while her colleague, Addictions tutor Tony Carton continues to publish on his sociological perspective over the addictions field.

Bachelor of Hospitality Management, Event Management tutor, Joany Grima completed her Master of Business Studies in Communications from Massey University, in addition to her involvement with the 2015 Commonwealth People’s Forum in Malta, where she also had the opportunity to give a guest presentation at the University of Malta. Hospitality Management tutor, Anne Ricketts completed her Masters in Management from Massey University, and Tourism tutor, Adam Ransfield completed a research dissertation for his Bachelor of Tourism Management (Honours) from Victoria University of Wellington.

School of Construction staff also contribute to research and testing programmes at WelTec. Carpentry tutor, Len Matautia is a member of the Language and the Trades project team; while the valuable expertise of Plumbing Tutor, Martin Kelly contributed to a successful product testing programme for external industry partners.

Staff achieving research qualifications from other areas of the institution include Director, Teaching and Learning Julia Hennessy who completed her PhD titled ‘The contribution of the mental health support worker to the mental health services in New Zealand – An Appreciative Inquiry approach’ with Auckland University of Technology, and Faculty Academic Manager Sue Mills completed her Master of Education from Victoria University of Wellington.

Honorary Research Associate Dr John Horrocks was a resident scholar at the Stout Research Centre at Victoria University of Wellington, where he undertook a literary study exploring the political context around the two war novels of John A Lee. Honorary Research Associate Jill Clark was an active member the International Association in the Study of Co-operation in Education (IASCE) and International Technology, Education and Development (INTED) while also facilitating workshops in co-operative learning with co-researcher Trish Baker.

Research Symposia

The third Metro ITP research symposium was held at Otago Polytechnic in Dunedin. This collaborative event, led by the Metro ITP Research Directors (Christchurch Polytechnic and Institute of Technology – now Ara Institute of Canterbury, Manukau Institute of Technology, Otago Polytechnic, Unitec Institute of Technology, WelTec, Waikato Institute of Technology) provided attendees with emerging trends, inspiring stories, and strategies that they could use to equip their institution for the future; and to provide opportunities to build relationships with other institutions and with businesses for future collaboration possibilities.

In 2015 the WelTec and Whirieira welcomed Open Polytechnic as an associate of the joint Research Symposium. Interest also came from other ITPs who supported their staff to attend and present. The symposium was again a resounding success with the number of presenters and attendees continuing to increase over previous years. Themed “Emerging Enquiry”, the symposium’s keynote presentation was given by Professor Ken Udas from the University of Southern Queensland who discussed the unique nature of research excellence within a polytechnic culture.

Research Funding

WelTec staff members were again successful recipients of a research grant from Ako Aotearoa. Gerard Duignan received Central Regional Hub funding to investigate the professional development requirements for experienced teachers in tertiary vocational education – a study he is undertaking with collaborators from other ITPs including Bay of Plenty Polytechnic, Universal College of Learning, Eastern Institute of Technology, Unitec, and Whirieira NZ.

The WelTec Research and Enterprise Fund was established in 2015 to support WelTec researchers undertake research projects, carry out feasibility or pilot studies, and attend conferences to present their research findings. Applications were peer-reviewed by external subject specialists and an internal Assessment Panel. Funding was awarded to a variety of projects which ranged from engineering projects developing mobile robotics or mathematical models, a tourism study investigating the growing Chinese tourist market in New Zealand, to a long-term investigation into waste management practices at events which are run in the Wellington region.
Todd Foundation Awards for Excellence (ITPs)

Bachelor of Engineering Technology students, Allie Foote and Von Bandong, were each awarded Todd Foundation Awards for Excellence (ITPs) which provided funding support for their final year projects. Allie Foote’s project involved designing and testing a biogas capturing system for a small dairy farm that could use the gas as fuel for heating hot water, while Von Bandong’s project involved designing and constructing a prototype for a simulator to use in training health professionals.

Summer Scholarships

For the first time at WelTec research staff were able to obtain funding to progress their research over the summer trimester which supported a student to undertake supervised research. Induka Werellagama obtained funding for Graduate Diploma in Engineering Technology student, Jessel Villaflor to work on developing a mathematical model that could be used in the design of new wetlands for stormwater treatment. Frans Weehuizen also obtained funding for Bachelor of Engineering Technology student Von Bandong to advance the work on the training simulator to develop a working protocol that could be trialled in training situations.

Student Research

Our students continue to work on high quality, industry relevant projects with support from their supervisors (brackets).

Bachelor of Engineering Technology final year students carry out a full year project with an industry partner. Electrical major students: Hannes Boosye (Frans Weehuizen) developed a solar-powered Large Bird GPS Tracker to track the movements of migratory birds reducing the manpower and logistics required in the field; Michael Jonassen (John Wray) designed a substation automation system to preserve the security of the power distribution network in the north-west region of Wellington to relieve the stress created during peak periods of demand; and Quang Pham (Adrian Ferguson) designed and implemented an extruder that re-used and recycled plastics for a 3D printer.

Civil major students undertake projects often with local government bodies; Simon Wills (Bob McGrath) designed an eco-sensitive stormwater system for the proposed Marshlands School that needed to meet the expectations of the school and the requirements of the Christchurch City Council; while Ethan Coleman (Richard Greenfield) proposed and designed a Post Tensioned Farm Bridge; and Kapadia Riyaz (Bob McGrath) investigated a system for the treatment of grey-water.

Mechanical major student, Derek McElwee (Gareth Grettan) investigated the stresses in a sport truck chassis and built and tested a system to measure direct strain on the chassis; Rocky O’Keeffe designed an articulated tractor for a Wairarapa eco-village that could work in a small restricted space for loading woodchips into a biomass energy generation processor; while Ben Payne (Frank Cook) developed a Ultra-High Efficiency Hydrogen Water Heater that heats water using hydrogen as a fuel source.

Bachelor of Information Technology students also undertake a variety of significant projects in their third year. Paul Tuterangi (Ian Armstrong) developed a monitoring service targeted at collecting evidence of malicious activity on networks; Alvin Francis and Chunxi He’s (Reza Moosa) project focussed on the security infrastructure and user interface design for a student alumni system; another project by Ernest Cunningham, Daniel Grey and Stacey McLean (Ian Hunter) used voiceover technology and locator beacons to assist the vision impaired by informing them of their location so that they feel confident and safe navigating around their local community.

Vasudeva Ammineni, Srikanth Challagundia and Yadwinder Singh (Rhys Owen) worked with developers of a leading-edge wind turbine to develop an inexpensive power generator and a system to connect to controls to that track, optimise and report power generation performance; while Jonnie Graham, Ella Liang, Javen Liu and Dave Smith (Steve McKinlay) created a data visualisation tool for configuration databases optimising data validation, assessing sources ad matching. Other groups carried out projects developing apps for the classroom, DIY handymen, and mobile fitness, while others developed management and reporting systems for school sports teams, schools or early childhood centres.

Bachelor of Creative Technologies students take their inspiration from experiences, the past, environments, and their interests as a focus for their creativity in their different disciplines. Animation student Tim Ahern’s (Supanan Supphawut) work ‘The Static Dynamic’ took inspiration from character design by modelling; visual artist Yu Ping Pan (Adi Brown) was inspired by the use of incense in eastern ritual to develop a series of drawings ‘Believe’ using incense sticks to draw on transparent paper; while Luke Mclean (Darren Ward) combined childhood influences and virtual reality gaming technology to create an interactive comic book ’The Samurai Guardian’; and Wikitoria Rakete (Craig Anderson) found inspiration for her contemporary Maori longboard designs from her heritage and surroundings.

Photography student Ash Rockett (Deidra Sullivan) designed a photographic book ‘An Other Life’ showcasing unusual or unexpected elements of New Zealand society that he has experienced as an immigrant from the United Kingdom; while Kylie Cassidy (Deidra Sullivan) combined her passion for graphic design and photographing families and children to create a series of templates for photographic books she called ‘Tiny Fantail Print’.

Graphic designer Erin McGarvey’s (Craig Anderson) fascination with typeface design motivated an examination of the role of language and writing in shaping New Zealand’s history, culture and identity, using typography as a tool she designed the typeface ‘New Zealand Gothic’ as a manifestation of our identity. Starting with sketches, Yu Ning Chang (Grant Corbishley) evolved them into ‘Chocolate Soap Packaging’ design using a combination of graphic and 3D design, for a product not normally known for innovative packaging.

Film-maker Jordan Griffiths (Grant Corbishley) focussed on the physical elements of film-making and created a time lapse of the night sky ‘Cepheus’, to question the perception of time and our powers of observation; while Keely Skinner (Deidra Sullivan) created a micro documentary exploring Wellington’s largest and tallest fully wooden marae, ‘Tapu Te Ranga Marae’, situated in Island Bay and built from recycled materials.

Three years of study for Bachelor of Creative Technologies students culminated in their final year exhibition ‘Collidescope’ featuring works in visual arts, graphic design, photography, digital design, animation, and film. ‘Collidescope’ 2015 was held at The New Zealand Portrait Gallery on the Wellington waterfront.
RESEARCH OUTPUTS

Artefact/Object/Craftwork


Journal Paper


Chapter in Book


Exhibition


Doidge, M.J. (2015). Imaginary Archive. Marcel Kalberer (curator), Zeppelin University, Friedrichshafen, Germany


Doidge, M.J. (2015). Sculptural installation and performance using Go Pro cameras and wifi, iPad connected to speakers, cathode ray monitors and DVD players, broom and bronze casting, tin shed. Whiti o Rehua School of Art, Massey University College of Arts, Wellington.


Thesis - Doctorate


Thesis - Masters


Commissioned Report for External Body


Other Publication


Conference Proceedings


Conference Oral Presentation


Breen, F., Protheroe, M., Fraser, C., Honeyfield, J., & Fester, V. (2015). Inter-institutional collaborative research project: One was to facilitate emerging enquiry? Presented at WelTec-Whitireia Research Symposium, Whitireia NZ, Porirua.


Conference Poster


Non-Conference Oral Presentation


Prizes and Awards

Beals, F. WelTec Researcher Award 2015

Appointments

Brown, A. NZQA monitor for postgraduate degree programme, Media Design School/ Laureate International Universities, Auckland
Brown, A. NZQA accreditation panel member for postgraduate degree programme for Media Design School/ Laureate International Universities, Auckland
Gretton, G. Board member, Aotearoa Wave and Tidal Energy Association
Clark, J. Vice President and Secretary, Executive Committee, New Zealand Communication Association. Clark, J. Executive Board member, International Association for the Study of Cooperation in Education (IASCE)
Clark, J. Advisory Board member and Reviewer, International Technology, Education and Development (INTED) 2015 conference, Madrid, Spain
Fawcett, M. Sub editor, New Zealand Veterinary Nurse Journal
McGarr, G. Reviewer, Journal of Occupational Science
Peter, C. Associate Editor, (Oceania) International Journal of Safety and Security in Tourism/Hospitality
Peter, C. Editorial Board Member, Journal of Management Sciences
Peter, C. Editorial Board Member, Journal of Hotel and Business Management
Peter, C. Editorial Board Member, Journal of Tourism & Hospitality
Peter, C. Reviewer, New Zealand Applied Business Education Conference (NZABE) 2015
Sudhakar, C. Reviewer - The Fourth International Conference on E-Learning and E-Technologies in Education (ICEEE2015), Surya University, Indonesia http://sdiwc.net/conferences/iceee2015/
Sudhakar, C. Editorial Board member, International Journal of Computer Sciences and Information Technologies for Education (IJCSET)
Sudhakar, C. Workshop Editorial Committee member, First International Workshop on Computer Sciences and Information Technologies for Education - CSITE 2015

Other Peer Esteem

Beals, F. Examiner, Master's thesis, Victoria University of Wellington
Clark, J. Session facilitator, International Association for the Study of Cooperation in Education Conference, Odense, Denmark
Hennessy, J. Assessor, Mental Health Service Achievement Awards
Mackay, J. Plenary Session Chair, Professor Dean Zollman, International Commission on Physics Education Conference, Beijing, China
Mackay, J. Session and Workshop Chair, Sino / NZ Partnership Research Forum, Waikato Institute of Technology, Hamilton
Peter, C. Session chair, Global Hospitality, Tourism, Marketing and Management (GHTMM)

Schreuder, P. Consultant, Living Without Violence Network
Sudhakar, C. Session Chair, International Conference on e-Commerce, e-Administration, e-Society, e-Education and e- Technology
Vilke, M. Invited speaker, Street Outreach Team, Wellington City Council
Wong, L. BDS(Hons) Examiner, Faculty of Dentistry, University of Otago
CONTRIBUTION TO THE RESEARCH ENVIRONMENT

Consortia Membership

Duignan, G. Developing professional development for experienced teachers in tertiary vocational education, Project leader
Mackay, J. Language and the Trades, WelTec Project leader

External Research Funding

Duignan, G. Ako Aotearoa Central Regional Hub Fund. Developing professional development for experienced teachers in tertiary vocational education

Facilitating Networks

McGhie, G. Weta Workshop, Weta Digital, and associated props manufacture facilities
Seno, L. Business/Industry links for the Business School

Contribution to the Research Environment

Corbishley G. Organiser, Creative Technologies Staff Research Seminar series.
Nicholas, L. Organiser, WelTec, Whitireia & Le Cordon Bleu Hospitality and Tourism Research Forum
Sudhakar, C. Session Organiser, Multimedia Learning System (MMLS) for Mobile Platforms, The Fourth International Conference on E-Learning and E-Technologies in Education (ICEEE2015)
Wong, L. Co-organiser of WelTec Whitireia Research Symposium, Whitireia NZ, Porirua

Student Supervision

Brown, A. Curator and coordinator, Student exhibition, ‘Collidescope 2015’, The New Zealand Portrait Gallery, Wellington
Brown, A. Curator and coordinator, Student exhibition, ‘Nava’, Matchbox Gallery, Wellington

Professional/Industry-Related Outputs

Creative Outputs


Oral presentations


Appointments

Grima, J. Event Manager, “Commonwealth People’s Forum 2015”, Valletta, Malta
Hewitt, A. Member, Barista Guild Committee
Hewitt, A. Member, Culinary Fare Organising Committee, Front of House expert

Student Factors

Francis, M. Students placed 1st and 2nd, Birthday Cake category, Wellington Food Show, recognised by World Association of Chef Societies
Francis, M. Student placed 1st, Innovative Fruit Tart category, Wellington Food Show, recognised by World Association of Chef Societies
Hewitt, A. Students placed 2nd and 3rd, Wellington Culinary Fare, Barista section
Morrell, R. Student team placed 1st, International Culinary Competiton Challenge, Kansas City, Kansas, USA
Morrell, R. Student placed 1st, Wellington Culinary Fare, student competition

Contribution to Profession/Industry

Morrell, R. School teacher workshops.
Morrell, R. Chef 4a Day. Visited fourteen schools in Wellington region
Hewitt, A. Organiser, WelTec/ Whitireia Barista Challenge
Hewitt, A. Workshop facilitator, Caffeination Coffee Festival, Wellington.
Morrell, R. Organiser, NZ Pork and Bacon competition