

# Change by Design

**QUT** Design Lab



# Design Lab

ANNUAL REPORT  
2018

**QUT** Design Lab



Design Lab  
Queensland University of Technology  
Gardens Point, QLD, 4059

# GOING DIGITAL ON

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# 1.0 Director's Report

2018, our second full year of operation, has been a very productive one. I am pleased to once again report our strong performance, delivering high-quality outcomes against all key performance measures and criteria. Kicking off the year with a QUT Design Lab research showcase in CIF Z9, we continued to advance our vision of Change by Design, as illustrated by the many significant research activities and achievements outlined in this report.

Highlights from 2018 include:

- Design Lab researchers' Dr Verena Thomas, Dr Jackie Kauli, Ms Caroline Keating, and their team of 40 human rights defenders were awarded the 2018 United Nations Media Award for social media reporting on gender-based violence in Papua New Guinea.
- Prof Marcus Foth led QUT's involvement in a Future Cities CRC bid, shortlisted for interview in February 2019. Marcus also secured a million-dollar project from the Food Agility CRC to use blockchain technology to electronically track beef – from the paddock to the plate.
- Prof Thea Blackler, along with Design Lab colleague's Dr Rafael Gomez, Prof Vesna Popovic and Dr Helen Thompson, were awarded a 2018 ig-nobel prize for their paper Life is too short to RTFM. Only ten prizes are awarded worldwide, from approximately 9000 nominations each year.
- Building on the continued success of the Design Robotics project, team member A/Prof Cori Stewart has led the development of an \$19M Advanced Robotics for Manufacturing Hub – ARM Hub. The ARM Hub has attracted CSIRO, Innovative Manufacturing CRC and the Advanced Manufacturing Growth Centre as partners



A/Prof Evonne Miller

as well as upward of 30 manufacturing companies interested in undertaking projects. Notification of funding will be mid-year 2019.

- As part of a residency with Queensland Government Department of Environment and Science's Coastal Impacts Unit, Dr Jen Seevinck created an interactive artistic visualisation showing historical and live data recorded by the Brisbane buoy at Point Lookout. This was exhibited during National Science Week.
- Dr Janice Reiger, working with Prof Meagan Strickfaden from University of Alberta in Canada, produced a short film on the Brisbane Braille Trail that educates and engages designers about navigating urban environments with visual impairment.



The team accepting the 2018 United Nations Media Award



*Prof Thea Blacker proving that life is too short to RTFM*

Collaboration and teamwork remain defining strengths of QUT Design Lab. For example, five Design Lab researchers – Dr Manuela Taboada, Dr Glenda Caldwell, Dr Deb Polson, Prof Laurie Buys and Dr Veronica Garcia-Hansen – are collaborating across three projects awarded Institute for Future Environments Catapult Grants in 2018. These projects use design thinking and methods to address climate change challenges, specifically designing-out plastic waste and strategies to mitigate urban heat through better building design. Industry partnerships continue to strengthen and grow, with our researchers collaborating with UAP, BeefLedger and Fulton Trotter Architects, among many others.

We have continued to deliver well-attended knowledge-sharing events and activities, underpinned by three signature events focused on our three research programs. We activated our Design Lab space through weekly *Shut Up and Write* sessions, the popular *Research Mud Pit* series, a professional development writing workshop series, a two-day on campus writing retreat, as well as presentation skills training for members. We have also developed a suite of marketing and promotional materials, including flyers, branded green tea, printed cubes and videography.

Internally, Prof Lisa Scharoun was appointed the new Head of School for Design in September. Lisa has brought energy and fresh perspectives, new ideas and networks to our School and Lab, and we are working with her to appoint an advisory board. Prof Thea Blackler stepped down as Associate Director, to become Discipline Leader for the Integrated Design cluster of fashion, industrial, interactive and visual design. I thank Thea for her support and committed leadership, and welcome Senior Lecturer in Architecture Dr Glenda Caldwell as acting Associate Director.

Looking forward, the interviews and outcome of the Future Cities CRC bid will be announced in 2019, which also celebrates 100 years of Architecture at QUT. A year of exciting activities is planned, including an architectural photographic exhibition and research seminars held in conjunction with the profession, and this will culminate with an on-campus celebratory dinner for architecture alumni.

**A/Prof Evonne Miller, Director, QUT Design Lab**



# 2.0 QUT Design Lab

Design is no longer experienced as a noun—as an object or artefact to use or admire. We experience Design more actively, as an approach or way of thinking that drives our everyday interactions with the world around us and central to successful national innovations systems worldwide.

Our vision is **Change by Design**.

We are driven to deliver design-led solutions to societal challenges through rigorous, high-impact transdisciplinary design research.

We believe Design is optimistic, transformational, ethical, inclusive, and experimental.

## 2.1 GOVERNANCE

The QUT Design Lab has a robust operational structure governed by the School of Design and Creative Industries Faculty. The Lab reports to both the School of Design Management Committee and the Creative Industries Faculty's Research Innovation Committee.

## 2.2 STRUCTURE AND LEADERSHIP

The QUT Design Lab structure is reflective of its primary research focuses and designed to ensure and maintain strategic focus on the Lab's aims and objectives. Day-to-day operations are led by the Executive Team comprised of the Director, Associate Director and HDR Training Coordinator and supported by the Leadership Team, who each lead a core program including:

- Design for Health and Wellbeing
- Design and Technologies of Tomorrow
- Design for Communities and Resilient Futures

The Director, supported by the Leadership team, fosters a strong culture of research success, work life balance, fostering interdisciplinary conversations and collaborations, and supporting research through engagement and investment.

In 2018 we opened a dedicated space in F Block. Activating the QUT Design Lab through the delivery of structured and unstructured programs and engagements, providing a space for researchers and partners or HDR students and supervisors to meet and socialise, and a home to workshop, develop and park ideas has been a central focus over the last 12 months.



*HDR Coordinator Deb Flanders Cushing, centre, celebrates our 2018 Graduating HDR's in the Design Lab*

We welcomed more than 500 people to the Lab throughout 2018.

Operational capacity has been identified as a barrier to effectively profiling and amplifying the Lab's engagements, and amplifying the impact of our research. In response to this, the Faculty has redesigned the role of Engagement Officer to a full-time position, which will be advertised in February 2019.



**Director**  
**A/Prof Evonne Miller**

My background is in environmental and design psychology, with my research focusing on how environments (built, technical, socio-cultural and natural) can better support and engage users, especially older people.

I have several 2018 highlights, many of which centre on the important informal interactions within the lab space in F104, which has triggered many research conversations, ideas and collaborations. The event for our graduating higher degree research students was a wonderful way to celebrate their work, while watching people regularly prioritise their research writing at weekly SUAW is a privilege.

Perhaps the most impactful event was a collaboration with IBHI held at The Cube, for the *Chasing Clarity in Chaos of Concussion* event in May. Alongside international and national keynotes, and a lively panel discussion, our researchers showcased their design prototypes while our design research was displayed on the large, interactive Cube screens to attendees. Most importantly, as a result of connections and discussions at this event, QUT Design Lab researcher Dr Marianella Chamorro-Koc subsequently collaborated with IHBI's Dr Jonathan Peake to win seed funding from the competitive QUT IHBI-HASS scheme. Additionally, for me personally, seeing the visual impact of our research profiled on The Cube's large screens was the inspiration for the digital exhibition of the Our Care Journey project, profiled later in this report.



**Associate Director (Jan 2017 - July 2018)**  
**Prof Thea Blackler**

I am a world leading researcher in intuitive interaction, and a passionate advocate for users of all types of products, interfaces and systems, such as video gaming, children, navigation and expertise. My focus at the QUT Design Lab is on developing members' writing practice through a weekly writing program *Shut Up and Write* as well as full day workshops on various topics related to academic writing for Design researchers.

My 2018 highlight was most certainly when I, along with colleague's Dr Rafael Gomez, Prof Vesna Popovic and Dr Helen Thompson, was awarded a 2018 ig-nobel prize for my paper *Life is too short to RTFM*. This award is given to authors who have published something unexpected or quirky which will make people interested and make them think. I travelled to Harvard and MIT in September to receive the prize and take part in public presentations and global media interviews and have used this platform to promote QUT, the Design Lab and our real-world research on a global stage.



**Research Training Coordinator**  
**A/Prof Debra Flanders Cushing**

My current research interests include the exploration of intergenerational park design for increased physical activity and social engagement, child and youth-friendly cities, promoting effective assessment practices during international study tours, and the affordances of public art in urban public spaces for placemaking. I am currently co-authoring a book with A/Prof Evonne Miller titled *Creating Great Places: Using Evidence-based Urban Design for Health and Wellbeing*. In my role as Research Training Coordinator, I am excited about the energy and passion that higher degree research students bring to the Design Lab community and am always impressed by their engagement with opportunities the Lab provides.

My 2018 Design Lab highlight was the inaugural celebration for our graduating PhD, DCI and Masters students at the end of the year. It was a great way to recognise the tremendous effort put in by both the students and the supervisors!



**Associate Director (July 2018 -)**

**Leader, Design for Communities and Resilient Futures (Jan - Dec 2018)**

**Dr Glenda Amayo Caldwell**

My research focuses on design robotics, media architecture, urban informatics, and community engagement. As the Design Lab Associate Director, I collaborate with School of Design researchers to bring about a more inclusive and resilient future. We place creativity at the forefront of how we create different methods, artefacts, technologies, spaces, and places to tackle a range of opportunities and challenges.

My 2018 Design Lab highlight was working with the program leaders to start the monthly Research Mud Pit engagements, and supporting the Communities and Resilient Futures signature event, the Creative Research and Development in Asia Pacific, Reflections on Gender Inequalities and Human Rights Symposium hosted by Dr Verena Thomas and Dr Jackie Kauli. Their Yumi Sanap Strong project, which focuses on addressing sorcery accusation related violence, is profiled in detail later.



**Leader, Design and Technologies of Tomorrow**

**A/Prof Markus Rittenbruch**

I am an A/Prof in Interaction Design at the School of Design. I have over 20 years of research experience in the fields of Interaction Design, User Experience Design, and Ubiquitous Computing. Through leading the Design and Technologies of Tomorrow program at the QUT Design Lab I foster trans-disciplinary research, experimentation and reflection on the relationship between Design and Technological innovation. My research focusses on collaborative and participatory data visualisation, human-robot collaboration, tangible & natural user interfaces and community engagement.

My 2018 Design Lab highlight was the opportunity experiment and collaborate with colleagues through our Research Mud Pit series. This series of informal presentations and discussions enabled Design Lab Researchers to discover what researchers from different disciplines are working on, finding and exploring areas of intersection, sharing success, advice and learnings.



**Leader, Design for Health and Wellbeing**

**Dr Marianella Chamorro-Koc**

I am an Industrial Designer and Senior Lecturer. My research explores people's experiential knowledge and interactions with products and systems, and the contextual aspects shaping them; this is applied into the design of self-healthcare technologies for health innovation, and community engagement with technologies for viable futures. By devising strategies to transfer new knowledge and technologies into practical applications to address everyday challenges and, by integrating design methodology in my research work with other disciplines, my work contributes to our Design Lab vision of Change by Design.

My 2018 highlight was conducting our Health and Wellbeing Signature Event Chasing Clarity in Chaos of Concussion, in partnership with IHBI. Addressed to researchers, industry and the general public, this was a capacity statement event that highlighted our work in Health and Design for Health Innovation. This event provoked thought and raised awareness about the high prevalence and importance of concussion in sport, and was a critical trigger for future research partnerships.



# 3.0 Research Projects

## 3.1 SELECTED 2018 PROJECTS

In 2018, the QUT Design Lab lead many successful research projects across the three core programs. While only a handful of projects are outlined here, a full list of research projects can be found at [research.qut.edu.au/designlab/](https://research.qut.edu.au/designlab/)



### Research Focus: Papua New Guinea

#### Team

Dr Verena Thomas, Dr Jackie Kauli,  
2018 collaborators: Dr Catherine Levy, Dr Jeremy Kerr  
and Dr Oksana Zelenko

Led by Dr Verena Thomas and Dr Jackie Kauli, QUT Design Lab's deep dive into using Design Research to solve real world problems in Papua New Guinea has gained momentum during 2018. With four projects currently in various stages of delivery, it is no wonder that Verena and Jackie's dedicated work has been recognised through the 2018 United Nations Media Award and the Brisbane Mayor's Asia Pacific Screen Award.

#### Developing Communication Strategies to address sorcery accusation related violence in Papua New Guinea

This action research projects works with community based partners to better understand the causes, impacts and solutions to addressing sorcery accusation related violence in Papua New Guinea. In 2018, following a media reporting analysis, the organisations together have developed over 40 digital stories capturing stories of positive change in the community based on many years of experience in addressing violence ensuring the safety of women and families. The project created the Yumi Sanap Strong initiative through which the stories are being used for advocacy and education in communities throughout Papua New Guinea.

#### Developing Information, Education and Communication Tools for Human Rights Defenders in Papua New Guinea

The project worked closely with human rights defenders and people in the Justice sector to develop strategies to communicate legal information to communities. The team developed a communication framework and a toolkit for human rights defenders. In 2018, 11 lead facilitators were trained to implement further training for the use of the Communicating the Law toolkit.

#### Bougainville Audience Study – Phase 2

The Bougainville Audience Study (Phase 2) captures the knowledge levels and perceptions of people in Bougainville prior to a referendum on the political future of Bougainville. In particular, the study maps media and communication access and use and awareness activities that have been taken place since 2015. It is a follow up study to a previous baseline study. The project works closely with Bougainvillian researchers who are involved in study design, data collection and analysis.

#### Pikinini Kisim Save – Education Knowledge Hub

This applied research project develops an educational knowledge hub and a community of learners for all stakeholders under the Pikinini Kisim Save project. The projects seeks to improve elementary school education in four provinces in Papua New Guinea. In 2018, the research team facilitated 3 creative co-design workshops, producing story content and design prototypes together with consortium partners.

## Design of a Hospital Burrow to Treat Sarcoptic Mange in Wombats



### Team

Prof Marcus Foth, Prof Thea Blackler

Sarcoptic mange in wombats has reached catastrophic proportions, causing mass decline of at least 70% of bare-nosed wombats in Australia across NSW, Victoria, and Tasmania. Some local wombat populations (and their genetic diversity) are already extinct. Sleepy Burrows Wombat Sanctuary has had repeated success administering an alternative oral treatment with wombats in quarantined care, as opposed to unsuccessful conventional topical treatments. This new and effective approach significantly decreases treatment time and wombats recover fully.

This crowdfunding campaign raised over \$35,000 in vital funds for a design research study at Sleepy Burrows Wombat Sanctuary in collaboration with the QUT Design Lab to achieve two aims:

- To design and trial purpose-built quarantine hospital burrow enclosures to ease the treatment administration of sarcoptic mange in bare-nosed wombats;
- To document, analyse and evaluate this new mange treatment procedure and contextual factors applied to wombats in quarantine care using the new burrow design.

The study's findings will help to prepare a larger scale deployment.

This project has had a real world impact by being selected as a charitable cause for a QUT-wide staff giving project initiative which resulted in QUT staff donating over \$1,500 towards this QUT Design Lab project.

## BeefLedger: Blockchain tracking from paddock to plate

### Team

Prof Marcus Foth, Prof Uwe Dulleck, Dr Felicity Deane

Australian beef producers enjoy a strong reputation globally as safe, clean and green meat suppliers. This reputation has resulted in a lucrative Australian industry (exceeding \$13B per annum) with demand for top-quality Australian beef growing at rates beyond supply. Unfortunately, risks of fraud and brand value diminution are high in these conditions and inferior meat is being passed off as Australian in countries including China and Japan. It is critical to prove to customers that meat is top-quality Australian beef. Developing a method to establish food provenance eliminates the chance of misleading consumers as well as protecting the Australian brand and industry.

A team of QUT researchers are protecting Australia's reputation for world-class beef production by tracking beef from the paddock to the plate using blockchain technology. Whether you are a farmer, a supermarket, a butcher, a restaurateur, a consumer or another interested party, you will be able to access the entire history of the meat electronically by scanning a barcode or QR Code.

This world-first, industry-led project, called BeefLedger, is one of the first projects supported by the QUT-based \$200 million Food Agility CRC. Working with industry partner, BeefLedger Limited, a new digital cryptocurrency called a BEEF Token was launched in December 2017. It was developed as part of the design and implementation of the world's first application of distributed ledger or blockchain technology to the entire beef supply.



The BEEF Token will power the BeefLedger Blockchain and provide users with the value-added benefits of access to credentialed provenance data, sale history, consumer feedback insights, disease prevention, streamlining payments, and heightened food security. It has the potential to revolutionise the industry by limiting price fluctuations, supporting food provenance and preventing food fraud.

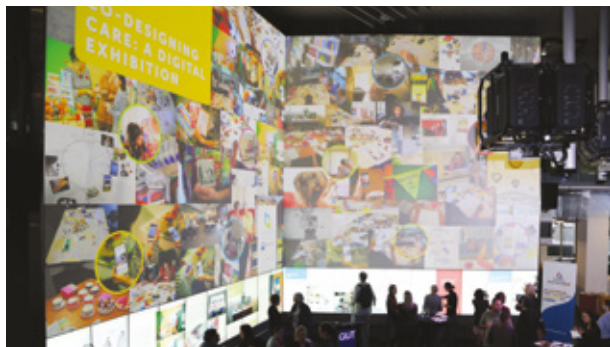
BeefLedger will provide a fairer and more sustainable supply chain, which is better for everyone over the long run as credentialed food provenance lifts the veil between producers and consumers. BeefLedger establishes the digital platforms and tools to enable the industry and its participants to meet the aspirations and needs of 21st century consumers (in Australia and abroad).



## Our Care Journal

### Team

A/Prof Evonne Miller, Dr Oksana Zelenko, Ms Geraldine Donoghue, Dr Aleksandra Staneva, Ms Tricia King and Ms Stephanie Bonson



1 in 10 Australians, 2.7 million people, are informal caregivers. This experience is rewarding and challenging, as carers provide regular support to a family member or friend with an illness, disease or disability. The replacement cost of this care has been valued at more than \$60 billion, yet many are caring in isolation with limited support and resources. QUT Design Lab researchers are addressing these complexities, taking a person-centred approach to co-designing an innovative digital solution to support carers.

Using design and arts-based research, this project and exhibition documented the emotional impact, practices and experiences of carers as well as creative arts based research – photography, art, cartoons, sketches, poetry and creative writing – to help make the invisible caregiving experience more visible, we used design research to develop an app.

Caregivers co-designed an app (Our Care Journal) that provides an easier way to coordinate and record vital information (e.g., medications, appointments, contacts, nutritional information), as well as personal detail about the person they are caring for (e.g., habits, likes, dislikes). Importantly, the app (developed in conjunction with our industry partner, The Ageing Revolution through an Advancing Queensland age-friendly community grants program) also enables carers to connect with other carers who understand their situation and can offer support.

The project culminated in the Our Care Journey – Reflections and Innovations symposium, Co-designing Care digital exhibition and Our Care Journal app launch at QUT as part of Carers Week 2018. This co-design project is a prime example of applying a user centred design approach to responding to challenges in the health services sector.

## Dialoguing while Wandering on the Braille Trail

### Team

Dr Janice Rieger, Prof Meagan Strickfaden (University of Alberta)

This project produced a short film that introduces a new method of data collection, Dialoguing while Wandering. This method informs evidence-based design and presses upon design praxis.

The film documents Sarah, Janice and Megan dialoguing while wandering on the Braille Trail in Brisbane, Australia. It promotes a co-constitutive knowledge process which seeks to challenge externally generated knowledge and find new ways to create more equitable and collaborative forms of knowledge. Co-constitutive knowledge uncovers a world perceived from different angles and viewed through multiple vantage points. This allows for a perceiving of things, not from a single perspective, but rather from multiple viewpoints, physical positions and more. By employing this different interview technique, we strive to embody the experiences of the participants and to map out the encounters with one another, and all relations.

Dialoguing while Wandering encourages detailed and rich embodied knowledge and experiences because information is prompted by association to one's surroundings. This technique is valuable in bringing forth phenomena that may often escape awareness of people who inhabit a particular environment.

By engaging in Dialoguing while Wandering, the interviewer and interviewee begin to have a deeper emotional connection and therefore begin to listen, watch, experience, understand, and enact each other's experiences. It also has the capacity to excavate personalised knowledge of those with different abilities and uncover systems of exclusion that are often hidden or naturalised and thus rendered invisible to other interviewing approaches. These wanderings foster insights that simply would not have been made possible through more traditional interview techniques alone.



The film, which will act a vehicle to share the method, is in post-production and will be available for future projects in mid 2019.

The film will be screened as a part of an International Inclusive Film Screening in 2019 and presented at the Qualitative Methods Conference as well as the Australian Museums and Galleries Conference in 2019.





## Creative Interaction with Data: Ruby Corrents 2.0

### Team

Dr Jen Seevinck

In 2006 the Brisbane coastal wave buoy recorded its highest ever wave at 16.8m. Historical wave data for comparable dates from 1995-w2018 show how unusual this is. The unpredictability of the sea and nature continually surprises us, running counter to the sense of control we crave in managing our daily lives.

Concerned with designing and researching interactive, creative experiences with data, electronic artist and QUT Design Lab researcher Dr Jen Seevinck participated in a residency with Queensland Government Department of Environment and Science's Coastal Impacts Unit to create an interactive artistic visualisation, showing historical and live data recorded by the Brisbane buoy at Point Lookout, to explore its potential for an interactive aesthetic experience.



The resulting work, Ruby Corrents 2.0, engages with a range of visualisation technologies and contexts - from government collaborators through to the arts; and

landscape through to art, science; and Augmented Reality through to CNC routing in timber. The transdisciplinary approach involved design thinking, reflective creative practice and human-computer interaction design and development.

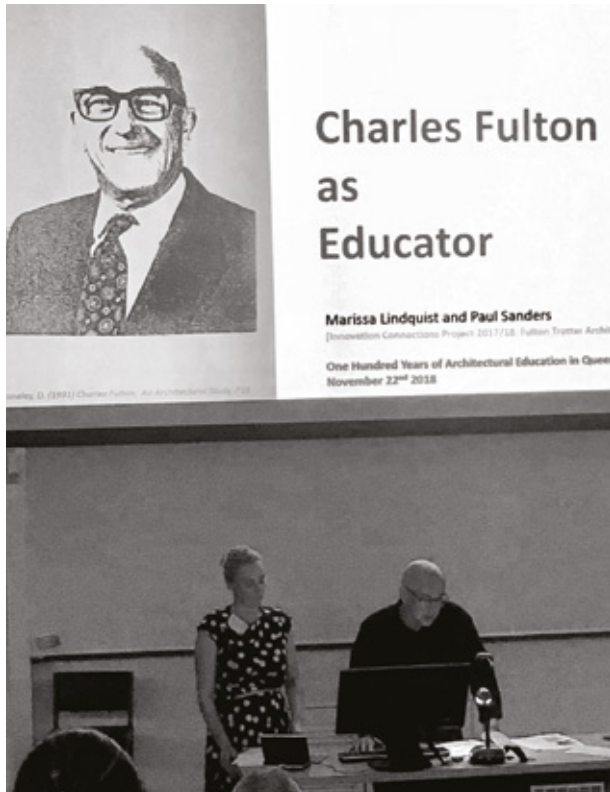


*I have been working with the aesthetic experience of light on the water for many years and during AiRS I developed a data-driven model of waves, adding a layer of structure to the work. This led to a physical visualisation and some thinking around unpredictability; and creating a visual language for synthesising the graphical forms in the projected imagery.*

Ruby Corrents 2.0 was exhibited at the EcoSciences Precinct in Dutton Park from 10 August – 7 September 2018, and can be experienced digitally at [qut.edu.au/research/designlab](http://qut.edu.au/research/designlab)



## Fulton Trotter Architects – Three Quarters Design, Management, Culture: Looking to the Future



### Team

Prof Paul Sanders, Ms Marissa Lindquist, Ms Nora Kinnunen

The aim of this Innovation Connections Research Project is to use the lessons of Fulton Trotter Architects' 80 years of practice history as a guide to inform future professional architecture practice. The firm has seen three distinct phases of leadership which have shaped the aspects of design, management and culture of the firm, and had lasting architectural and cultural influence throughout Australia. These three aspects are studied to inform a reflective and critical analysis of the firm, that may offer a model of successful management and practice to other aspiring firms.

This research was designed to be conducted in two stages. Stage 1 in 2018 was focused on gaining a broad understanding across the aspects of the practice, and was concluded with a Workshop to FTA Directors to present the findings and to invite reflection. Stage 2 in 2019 is planned to use the key themes developed in Stage 1, and the feedback from the Directors, to conduct further study in these areas, with particular emphasis on the architectural design of FTA. Final project outputs for dissemination will be through a research report, academic papers, and a book.

## Robotic Morphologies 4th Istanbul Design Biennale under Docendo Discimus Instrumantae by FABB

### Team

Dr Müge Belek Fialho Teixeira, Dr Frederico Teixeira UQ,  
Dr Jared Donovan, Dr Glenda Amayo Caldwell, Mr Alan Burden

Robotic Morphologies is a creative response to a call for robotic production of an exhibition piece and its design process' for 4th Istanbul Design Biennale under Docendo Discimus Instrumantae by FABB. Borrowing the concept of Thieri Foulc's 2D-ruled based Morpholo Game, the idea of this exhibition piece was to design an emergent wall structure. As part of the design process, thirty non-specialist users (QUT School of Design students and UQ Masters of Architecture students) engaged with an experimental workflow of digital design to robotic production. This involved the use of an interactive display with a computational design interface. As the artwork was designed through a collaborative and open framework, it allowed users to engage with the design process in its early stages. This democratisation of the design process allowed users to identify and influence the limitations and the possibilities of the interface. The results suggest that advanced manufacturing technologies can be made available to non-specialist users when each step of the design is clearly identified and the user interactions at early stages enhance the involvement with these technologies and the possible creative outcomes.

This work addresses the design robotics field in the context of interaction and architectural design for robotic fabrication. The research contributes to the creative use of industrial robotic arms through a workflow from an interactive web interface to programming of the paths to control the robot. Funded by QUT Design Lab, Robotic Morphologies was exhibited in the 4th Istanbul Design Biennial from 22 September to 4<sup>th</sup> November 2018. The open source nature of the Docendo Discimus Instrumantae triggered interest from Museum of Brisbane and we have been invited to take part in BAD Exhibition in 2019.



## 3.2 HIGHER DEGREE RESEARCH DEGREE STUDENT COMPLETIONS

### PHD

Name	Supervisory team	Thesis title
Mehdi Amirkani	Dr Veronica Garcia Hansen Dr Alicia Allan Dr Gillian Isoardi	Innovative Integrated Window Design with Electric Lighting Design System to Reduce Lighting Intervention in Office Buildings
Claire J Brophy	Prof Alethea Blackler Prof Vesna Popovic	Design for Older Users: The Importance of the Human-Technology Relationship
Lindy Osborne Burton	Prof Jill Franz A/Prof Philip Crowther Prof Sue Savage	Experimentations in Transformational Pedagogy and Space: The Architecture Students' Experience
Alina L Dini	Prof Laurie Buys A/Prof Robert Perrons	Influence of New Car Buyers' Purchase Experience on Plug-in Electric Vehicle Demand
Titik Endahyani	Dr Oksana Zelenko Prof Jill Franz Adj/Prof Brad Haseman	Designing, Implementing and Testing Welas Asih: A Holistic Model of Compassionate Design for Indonesian MSMEs
Aso Haji Rasouli	Dr Anoma Kumarasuriyar Dr David Nielsen	The Cone Shaped Settlement of Kandovan: a continuation of building traditions
Heather Lorraine Hill	Prof Marcus Foth A/Prof Evonne Miller	Connecting to Self, Community, and the Environment: Energy Conservation and Well-being in Households with Low Income
Heather K Mckinnon	Prof Marcus Foth Prof Gavin Sade	The Mundane Lives of Households: A Design Exploration into Everyday Resource Sufficiency in the Home
Gowrishankar Mohan	Prof Alethea Blackler Prof Vesna Popovic	Investigating Older Adults' Web Information Searching Behaviour
Sara Omrani	Dr Veronica Garcia Hansen Dr Bianca Capra Prof Robin Drogemuller	Natural Ventilation in High-Rise Apartments in Hot-Humid Climates
Johannes Parlindungan	Dr Mirko Guaralda Dr Simone Brott Mr Rajjan Man Chitrakar (External Supervisor)	The Meaning Change of Urban Heritage: A Socio-Semiotic Investigation of Historic Areas in Yogyakarta, Indonesia
Sumith Chandra Gopura Ranathunga Arachchilage	Dr Alice Payne Prof Deepthi Bandara (External Supervisor) Dr Leena Seneheweera (External Supervisor) Prof Laurie Buys (Mentoring Supervisor)	Fashion Education Ecosystem: Bridging the Fashion Knowledge Gap in the Sri Lankan Apparel Industry
Alana M Renata	A/Prof Debra Cushing Dr Shannon Satherley Dr Diane Menzies (External Supervisor)	Seeking Cultural Polyvocality in Landscape Policy: Exploring Association and Knowledge Sharing Preferences
Julian Fabius F Steinberger	Dr Ronald Schroeter Prof Marcus Foth	Risky Gadgets to the Rescue – Reframing In-Car Technology Use as Task Engagement
Natalie D Wright	A/Prof Evonne Miller Prof Les Dawes Dr Cara Wrigley (External Supervisor)	The goDesign immersion program: Fostering design-led educational innovation in regional Australian schools
Glenn C Wyatt	Dr Jared Donovan Prof Terry Flew Dr Shweta Kishore (External Supervisor)	The Phenomenology of Traffic in Ho Chi Minh City
Yanan Yang	Prof Vesna Popovic Prof Alethea Blackler	Elderly Chinese Immigrants' Adaptation to Their Host Country: Food Experience as a Mediator



Name	Supervisory team	Thesis title
Moya K Baldry	Dr Debra Polson A/Prof Evonne Miller	Complex Narratives: Extrapolating the role of the author through the design of a Virtual Reality experience
Hildegard M Bennett Heim	Dr Alice Payne Dr Tiziana Ferrero-Regis (Mentoring Supervisor)	Investigating independent fashion designers' adoption of emerging technologies for sustainability
Erin J Roche	Dr Tiziana Ferrero-Regis Dr Sean Maher Miss Louise McCarthy (External Supervisor)	In Search of Authorship: The Role of the Costume designer in characterisation-three case studies of Australian Screen Costume Design

### Masters of Philosophy

Name	Supervisory team	Thesis title
Brett A Camilleri	Dr Marianella Chamorro-Koc Dr Udo Gottlieb	It's A Social Business: Mapping The Influence of Meal Kit Services in User Value and Co-Created Experiences
Toby D Mackay	Dr Simone Brott Dr Janice Rieger Adj/Prof Paul Makeham (Mentoring Supervisor)	Le Corbusier: Sport and Stadia

### Masters of Research

Name	Supervisory team	Thesis title
Sonya J Close-Debais	A/Prof Evonne Miller Dr Judy Matthews Dr Cara Wrigley (External Supervisor)	Investigating employees' understanding and application of design thinking for innovation in a large organisation
Juexiao Mo	Dr Debra Polson Prof Gavin Sade	ARG Design for Orientation of College Students in Mainland China

## 3.3 HIGHER DEGREE RESEARCH STUDENT STORIES

### Dr Hilde Heim



Dr Hilde Heim completed her Professional Doctorate by Creative Works *Fashioning Business: Updating Support for Local, Small-Scale Independent Fashion Designers* with the QUT Design Lab in 2017. Supervised by Dr Alice Payne (Principal supervisor) and Dr Tiziana Ferrero-Regis (Associate supervisor).

Hilde's work investigates the emergence of small-scale fashion designer labels in cities not otherwise known as being fashion centres. By identifying the factors that contribute to business success or failure, not least of which is the support owner-designers receive during the life cycle of their business, Hildegard revealed that a complex set of requirements is needed to support small business practices, including access to relevant and credible information, community interaction and tailored mentoring. The study resulted in the development of an online resource to support independent designers to build successful and resilient local fashion businesses.

Following the completion of her DCI, Hilde plans to continue research on independent designers and is embarking on a trans-disciplinary PhD by publication. This new research investigates the application of Fash-Tech for sustainability as enterprise enablers in small scale enterprises. Hilde is also continuing to educate and mentor independent creative entrepreneurs.





### Dr Alayna Renata

Dr Alayna Renata completed her PhD *Seeking cultural polyvocality in landscape policy: Exploring association and knowledge sharing preferences* with the QUT Design Lab in 2018. Supervised by A/Prof Debra Cushing (Principal supervisor) and Dr Shannon Satherley (Associate supervisor), Alayna's work explores the intersection of the inherent physical and spiritual connection Indigenous groups have with the landscape and the intricacies of these relationships and the preferences around sharing this knowledge.

Alayna's research explored these connections in regards to Indigenous Maori iwi, K i Tahu, who affiliate closely with the landscapes of the South Island of Aotearoa New Zealand and many other landscapes throughout the Pacific. By learning of these relationships and preferences, her research considered the alignment of these values with local government legislation, thus, considering the extent of 'voice' that these groups do or do not have in policy.

Following the completion of her PhD, Alayna intends to make an ongoing contribution in the Indigenous design space. This includes working with government agencies to make improvements in this area, undertaking teaching with QUT and UQ, as well as continuing to participate in major projects through the South Pacific. Supporting this, Alayna will be preparing a series of publications on this and related topics, as well as having been invited to speak at a number of International forums.



### Dr Erin Roche

Dr Erin Roche completed her Professional Doctorate by Creative Works *In search of authorship: The role of the costume designer in characterisation-three case studies of Australian screen costume design* with the QUT Design Lab in 2018.

Costume designers are visual storytellers. They interpret the written word and transform text into three-dimensional, tactile, visually informative costumes that create a character's fundamental expression of self. Costume designers communicate the unwritten components of a script.

Supervised by Dr Tiziana Ferrero-Regis (Principal supervisor) and Dr Sean Maher (Associate supervisor), Erin took a deep dive into developing a conceptual understanding of the role of costume designer's in Australian screen production and, specifically, if they can claim an authorial voice through characterisation.

The research forms a theory of costume design that incorporates collaborative authorship, the designer's voice and the notion of embodiment to underpin a much-needed philosophy of costume design practice. It was her research that is informing her own professional and creative practice as a costume designer.

In 2016 while studying, Erin was also the recipient of a Churchill fellowship to accelerate and strengthen costume design practices in the Australian screen industry in Italy, the USA and the UK. While waiting for the examination to come back, Erin took on an Australian film, *Celeste*, set in Northern Territory, and she is now working on *Reef Break*, a 13 episode series by Disney ABC International Television on the Gold Coast.

# 4.0 Events and Engagement

## 4.1 OVERVIEW AND CALENDAR OF EVENTS

In 2018, the QUT Design Lab hosted approximately 50 events and visitors (both national and international). The calendar that follows captures the scope and scale of engagements and events during the year, with a full list of events available at [research.qut.edu.au/designlab/](http://research.qut.edu.au/designlab/). These engagement activities included seminars, presentations and interactive sessions with students, fellow academics, the general public and visiting academics can be grouped into three broad categories: Collaboration, Design Research Training, and Networks.

As the list of topics below illustrates, Design Lab researchers embodied the power of collaboration through the *Research Mud Pit Series*. The Lab's Program Leaders drove the series, each representing projects and topics relevant to their Program. This series provides a platform for collaborative engagement and problem solving, where researchers to share their work and methods, solve wicked problems, celebrate success and find insights. The rules of engagement: BYO, research and engagement focused with positive and tangible outcomes.

Design Research Training has been a focus, through the development of the *Design Writers Space Workshop Series* our researchers were able to engage in focused writing practice through the weekly *Shut Up And Write* session; deep dive into a project through the two-day Writing Retreat with Karyn Gonano; or dip into full or half day workshops that are part expert-led learning and part collaborative learning.

Finally, networks are key to our ethos. Working with HUB Studio, we built a Design Lab Visualiser, this tool demonstrates the power of Lab researchers by visually mapping their discipline, research themes and industry partners.

Highlights from the 2018 *Research Mud Pit Series*:

- Friday 23 March *Getting research outcomes out of the Extra Stuff we do?* featured talks from Glenda Caldwell and Markus Rittenbruch
- Tuesday April 24 *Kaospilot: 25 Years of Design, Entrepreneurship & Social Innovation*. Featured seminar presented by Christer Windeløv-Lidzélius, Principal, Kaospilot Business and Design School, Aarhus, Denmark
- Tuesday May 1 *CityStudio Vancouver: Normalising Civic Action in Higher Education*. Featured public seminar presented by Duane Elverum, Executive Director and Co-founder of CityStudio Vancouver, Canada
- Wednesday 2 May *Design & Technology Showcase* featured Alice Payne and Dean Brough, Biotextiles and Fashion Futures; Rafael Gomez – Vibrante 2.0: Re-thinking and visualising the future of medical health devices; Clint Heyer, Malmö University: Locating the Interactivity of Interaction Design; Glenda Caldwell, Design Robotics: The Road Ahead; Deb Polson, Prototyping for the Future: The DesFi Approach



Engaging with Visiting Research Fellow A/Prof Ellen Saethre-McGuirk's exhibition *Norwegian Sublime*

- Friday 22 June *Community: Lessons learnt building a research group* with talks from Marcus Foth and Vesna Popovic
- Wednesday 18 July *Virtual Reality in Disability Design* explored Design Research and its intersection with Health and Wellbeing with Lex Van Cooten from Immerse Enterprises who is a Virtual Reality and augmented Reality developer.
- Friday 17 August *Design & Technology of Tomorrow: meet your friendly neighbourhood robot* featured QUT's Design Robotics team demonstrating their Universal Robot UR10 Collaborative Robotics Arms and discussing potential applications.
- Friday 21 September *Design and Health & Wellbeing: design and orthopaedics*, featured Chris Jeffrey, co-founder of Field Orthopaedics and CEO of Audera discussing the need for design in orthopaedics.
- Wednesday 17 October *Ruby Corrents 2.0: The Intersection of Art and Science* featured Dr Jen Seevinck showcasing a recent interactive art system and artistic visualisation created during her AiRS residency with Queensland Government's Department of Environment and Science. Jen discussed the residency and collaboration, the process and thinking behind the work, as well as the work itself.





## **JANUARY**

### School of Design Retreat

## **FEBRUARY**

### Design Teachers Studio

Natalie Wright, Andrew Scott, and Dr Nick Kelly from Faculty of Education hosted the QUT Design Teachers Studio 2018, supported by others from the School of Design. 80 high school teachers participated in this two-day programme in preparation for the 2019 introduction of the new QCAA senior Design Syllabus. This event positioned QUT Design Lab research in design-led educational innovation for 21st century lifelong learning as a core focus.

## **MAY**

### Experience and Understanding through Digital Innovations

In this guest seminar, visiting academic Dr Ellen Saethre-McGuirk discussed what it means to make things after the digital turn, and what the pedagogical implications of art and design in the digital sphere for art and design education and practice are.

## **JUNE**

### Michelle Bowden: Persuasive Presentation Skills Masterclass

For two intense days in June 10 Design Lab researchers' presentation skills were broken down and built back up by presentation skills powerhouse Michelle Bowden. This intensive program was so popular, it was reprised for another 10 researchers in November.

## **SEPTEMBER**

### HealthCam

QUT Design Lab was a Silver Sponsor of HealthCAM, the Australasian Symposium on Health Communication, Advertising and Marketing. An element of this partnership engaging in a Design Thinking for Innovation workshop, which focused on communications strategies and messaging delivered by Dr Manuela Toboada, to 87 delegates.



## **OCTOBER**

### Our Care Journey Symposium

## MARCH

### Change by Design - Poster Exhibition



## APRIL

### Making Sense of the Numbers

Part of our Design Writing Workshop Series this workshop engaged our researchers in how to use Research Metric Tools to inform their career planning, PPR and promotion preparation.

## JULY

### Research Mud Pit #4 Virtual Reality in Disability Design

Design Research and its intersection with Health and Wellbeing was thrown into the pit as Lex Van Cooten from Immerse Enterprises who is a Virtual Reality and augmented Reality developer as well as XR Experience Designer, and 3D UX Designer showcased his work for the Endeavour Foundation.

## AUGUST

### Ruby Corrents 2.0



## NOVEMBER

### QUT Design Festival

Held as part of CreateX 2018, the QUT Design Festival launched the end-of-year showcase with an Open Night event – culminating in exhibitions and installations across all design study areas and visual arts.

## DECEMBER

### Writing Retreat

For two days in December, Design Lab researchers and HDR's locked themselves away for some dedicated writing time. Working with Karyn Gonano, the group finished the year with focus and determination.

## 4.2 SIGNATURE EVENTS

The Leadership Team wanted to think differently about delivering events and program in a more strategic way in 2018. Each Leader was charged with the delivery of a Signature Event for their Program. These three achievements became the anchors of the 2018 event and engagement program.

### Design for Communities and Resilient Futures

#### Creative Research and Development in Asia-Pacific Symposium

9 & 10 April 2018

Convened by Dr Verena Thomas and Dr Jackie Kauli  
QUT Creative Precinct, Kelvin Grove

This symposium brought together researchers, development practitioners, creative practitioners and human rights advocates to discuss the way in which creative processes can be explored and integrated into research, advocacy, monitoring, and evaluation in the Asia-Pacific region.

Following on from the Women of the World (WOW) festival (6-8 April 2018), the symposium sought to engage in topics such as gender and human rights reflecting on the way in which research, through inclusive and collaborative approaches, can challenge dominant representations and unequal power dynamics in community development.

The two-day event explored the use of creative and digital methods co-creation and co-design approaches to indigenous pedagogies with regards to themes around International Development, Gender Inequalities, Human Rights Policy and Advocacy, Peace and Conflict Mediation, Climate Change, Land and Environment. The event culminated in the launch of a photographic exhibition in the Z9 foyer, Yumi Sanap Strong.

This event provided a space for people with different backgrounds to share their experiences. Speakers included human rights defenders from Papua New Guinea, academics exploring creative research approaches with community groups, and postgraduate students.



*Delegates at Creative Research and Development in Asia-Pacific Symposium*

### Yumi Sanap Strong

This community-led initiative emerged from an action research project undertaken by QUT Design Lab researcher's Dr Verena Thomas and Dr Jackie Kauli in partnership with the University of Goroka and community based organisations in Papua New Guinea. The project developed communication strategies and materials to address sorcery accusation related violence in Papua New Guinea.

An exhibition of photographs taken by human rights defenders from Papua New Guinea as part of the Yumi Sanap Strong initiative was launched at the Design for Communities and Resilient Futures signature event, Creative Research and Development in Asia-Pacific Symposium at QUT in April 2018.

The work included in the exhibition highlighted causes, impacts and solutions to sorcery related violence. By sharing the stories of those affected by sorcery accusations and those who transformed from perpetrators to advocates, the project challenges mainstream representations of the issue.

Yumi Sanap Strong went on to win a UN Media Award for Excellence Reporting on Gender Based Violence. Normally awarded to journalists, the award was given to the Yumi Sanap Strong project recognising the courage and commitment of human rights defenders to share their stories in mainstream and social media. Umba Peter, a male advocate working with Kafe Women's Association in Goroka, accepted the award in Port Moresby in December 2018 on behalf of the team.





*Wearable Design Technology team*

## Design for Health and Wellbeing

### Chasing Clarity in Chaos of Concussion

Co-presented with IHBI  
Tuesday 8 May  
Gardens Point, The Cube

In Australia and internationally there is a growing concern about the incidence of sport related concussion in children and young people. From the perspective of the role technology in Concussion research and in Design for Health Innovation, we partnered with IHBI to deliver Chasing Clarity in Chaos of Concussion. It was a capacity Statement event around Health Research and Design for Health Innovation in the topic of Concussion and Design Innovation for Health Technologies. The event featured a public Symposium and a Design Technology Exhibition. This public event was attended by clinicians, researchers and industry working in Sports Rehabilitation.

The event's main objectives were to foster future partnerships between IHBI-CIF researchers, and to provide a platform to showcase our current work in designing for

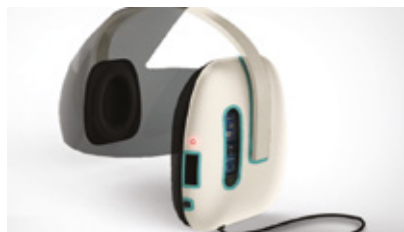
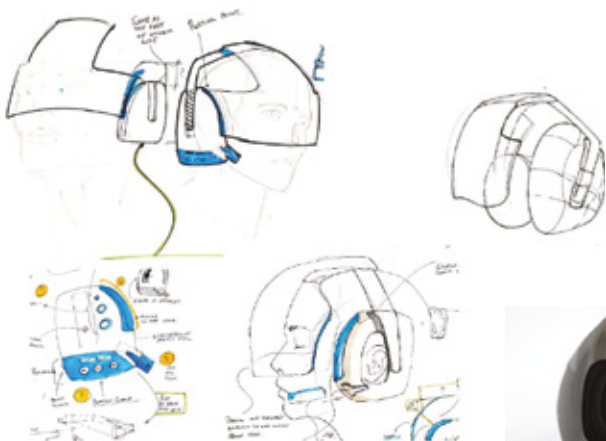
health technology. The event was facilitated by A/Prof Evonne Miller and Dr Marianella Chamorro-Koc. It included thought leader and an expert in the field of concussion in sports, Dr John Sullivan, CEO of Clinical & Sports Consulting Clinic in Rhode Island as the international Key Note speaker. A panel including Prof Lynn Griffith (Director, IHBI), and Dr Mark Young Sports Physician and co-Medical Director of QSports Medicine rounded out the program.

Following the formal speaking engagements, we presented an inaugural showcase, the Design for Health Technology Exhibition, consisting of the live presentation of three Health Technology prototypes and work from Design Lab researchers projected on The Cube's interactive screens. The Health Technologies presented included:

- Anti-impact Hahn Boxing Gloves, by the University of Canberra's Prof Allan Hann
- Wearable Design Technology to assist in the treatment of Parkinson's Disease by Dr Rafael Gomez, Dr Manuela Taboada and Mr Dan Cook
- Concussion Management Pillow project by Dr Marianella Chamorro-Koc and Mr Damjan Jacanin.

## Connections and Engagement

- IHBI – Design Lab researchers networking opportunity led to establish connections for future projects. Design Lab researchers established contact with the Sports industry dealing with technology for health, leading to connections with the University of Canberra and QLD Academy of Sports.



## Outcomes and Impact

- Design Lab Dr Marianella Chamorro-Koc established a research partnership with IHBI Dr Jonathan Peake for the project: *User Centred Design specifications for the Design of Health Technologies*. This project was awarded \$28,472 seed funds from the competitive QUT IHBI-HASS scheme. Two other projects led by Design Lab researchers Dr Oksana Zelenko and Dean Brough were awarded IHBI-HASS funds.
- QLD Academy of Sports (QAS) became WIL partner for Industrial Design 6 2018 project led by Dr Marianella Chamorro-Koc, for the design of Interactive Products for Sports Rehabilitation.
- University of Canberra Prof Allan Hann will become WIL partner for the Design of Concussion Management Boxing Gear in Industrial Design unit 2019.

## Design and Technologies of Tomorrow

International Guest Lecture: Paul Dourish

Doing Data Work: Technical and Organisational Pragmatics in Smart Cities

Monday 3 September

Z Block, Gardens Point Campus



Working in collaboration with The Digital Media Research Centre representing intersecting interests both from a Design and Digital Media perspective, A/Prof Markus Rittenbruch presented Paul Dourish, Chancellor's Prof of Informatics and Associate Dean for Research in the Donald Bren School of Information and Computer Sciences at UC Irvine, as the guest speaker at the signature event for Design and Technologies of Tomorrow.

Prof Paul Dourish is a leading scholar at the intersection between computer science, social science and design, with a focus on ubiquitous and mobile computing and the cultural practices surrounding digital media.

Paul delivered a lecture exploring data driven approaches to resolving problems in urban governance, from civic participation to institutional accountability. In recent ethnographic work, Paul had been examining data practice in a large city with a particular emphasis on the challenges of meshing data practice with existing institutional frames. Paul discussed some of his early findings, highlighting the gulf between the rhetoric of smart cities and the practical work of urban governance.

Paul's lecture was followed by a meet and greet event outside D Block, Gardens Point Campus where HDR students and researchers were able to discuss the elements of Paul's lecture in more detail.

This event raised the visibility of ongoing research at the QUT Design Lab and allowed QUT staff, students and partners in Industry and Government to connect with a high-profile global thought leader.

## 4.3 ENGAGEMENT

QUT Design Lab launched an inaugural Prototype Fund. The scheme assists with the making of tangible research outcomes, or applications emerging from research work. These applications could be digital representations (apps, interfaces, not posters), to physical models (prototypes) or physical artefacts.

While we could not support all 12 applications, the lab distributed \$8,000 to 10 projects across the Lab (4 were granted the full \$1500 and another 6 allocated smaller amounts of seed money). The diverse range of supported projects, and lead researcher, are listed below. We aim to showcase and profile each of these prototypes in 2019.

### Prototyping Funding Recipients

- Mr Dean Brough: Vegan Leather
- Dr Marianella Chamorro-Koc: Wondrous Goggles
- Dr Jen Seevinck: Visualising Data for Aesthetic Interaction
- Dr Ian Weir: Slide-Shield Bushfire Shutter Prototype.

### Seed Funding Recipients

- Dr Jane Turner: Pathways and Paws(es)
- Dr Vaughn Pinxit: The Golden Ratio
- Dr Lindy Osbourne Burton: Handmade Artists' Books
- Dr Susan Loh: People-Plant Engagement in an Office Building
- Dr Rafael Gomez: Wearables for Parkinson's
- Dr Lauren Solomon: One Thread: Empowering Workers in the Garment Industry.

## Design and Health Seminars

On Thursday 8 March, QUT academics presented on their research to Queensland Children's Hospital clinicians, medical staff and invited industry representatives.

The seminar on *Design and Health: Working together creatively for children and young people* provided a capacity building opportunity for QUT staff to showcase the process and outcomes of their health care related research projects and connect with targeted industry stakeholders at QCH.

The seminar was developed by Gillian Ridsdale, CIF Engagement Program Coordinator, in collaboration with Lynne Seear, Manager Arts in Health Program for Child Health Queensland, and presented in partnership with QUT Creative Industries Faculty (CIF) and the Centre for Children's Health Research (QCH), QUT Faculty of Health.

Presentations were provided by:

- Dr Jennifer Connolly (QCH): Recent advances in the application of technology in mental health treatment
- Professor Paul Makeham (CIF): Working with Actors in Open Disclosure Simulations
- Dr Kerry-Ann O'Grady (QCH): Acute respiratory infections in children and the pathways to chronic lung disease: challenges and opportunities in interventional research
- Dr Jen Seevinck (CIF): Creative engagement for healthy kids
- Margaret McElrea (QCH): How we are using creativity to improve lung function assessment in Indigenous Australians
- Dr Deb Polson (CIF): Adopting and adapting emerging technologies in the hospital context
- Dr Rebecca Byrne (QCH): Eating behaviour and feeding practices: implications for child health
- Professor Stewart Trost (QCH) and Dr Deb Cushing (CIF): Designing environments to afford children's physical activity and healthy living.

Discussion following the presentations was facilitated by Dr Rosslyn Walker, Retired Paediatric Surgeon and Emeritus VMO.



QUT Design Lab and colleagues presenting their research at the Queensland Children's Hospital





Design Robotics team with Vice Chancellor

## Communications and Media

Design Lab team, including HDR students, visiting academics, research partners and collaborators, are regularly commentators in the media, contributing pieces to *The Conversation*, making feature appearances, and providing expert comment for leading national radio, television and newspapers. Examples of our 2018 media presence include:

- The work of Prof Marcus Foth and Prof Thea Blackler to help save wombats was featured on Channel 10's *Totally Wild*
- Dr Jared Donovan was featured on *Scope TV* broadcast on Channel 11 to share his insights working with UAP on robotic manufacturing.
- Dr Manuela Taboada's *Conversation* piece walked us through how to have a plastic free Christmas.
- Prof Marcus Foth debated whether big data will treat us all equally in shaping our future cities in ABC News.
- Dr Glenda Amayo Caldwell participated in TEDxQUT speaking on why art and design should be at the forefront of robotic research.
- Dr Verena Thomas was interviewed on ABC Radio's *Pacifica Mornings* discussing how human rights defenders can effectively communicate their message for change.
- Dr Glenda Amayo Caldwell was invited to present at the Woodford Folk Festival in December 2018. One of the events was a panel discussion hosted by ABC's Cathy van Ertal recorded for ABC Radio's *Big Ideas*. This will be aired in February 2019.
- Prof Marcus Foth on UNSW, Queensland, ANU world leaders in key areas as featured in *The Australian*.

Our researchers also travel globally to present their research, teach and broaden QUT Design Lab's international network. Some notable appearances in 2018 include:

- A/Prof Evonne Miller delivered an invited keynote on older Queenslanders experience of the floods at the *Diversity in Disaster* Conference in Melbourne
- Prof Marcus Foth was an invited keynote speaker at the 5<sup>th</sup> International Conference on User Science and Engineering in Selangor, Malaysia where he delivered his keynote speech: *Smart Cities Beyond Fad and Hype: Connecting People, Place and Technology*
- Locally, Dr Janice Rieger delivered an invited keynote during Disability Action Week titled *Cultures of Inclusion: International Case Studies* and internationally, to co-facilitate and teach at the international *Disability Mundus* doctoral school in Lille, France with doctoral students from all over the world.

As researchers QUT Design Lab are not only able to create impact through the breadth of media, but also through the depth of true and impactful change. Notably, Mr Dean Brough has been instrumental in advancing state-wide improvements to the sun protective quality of school uniforms. His tireless advocacy has led to changes in procurement standards for all Qld State Government school uniform contracts, as outlined in the recent changes in the Australian Standards for Apparel Sun Safety.

Many of our researchers won awards and were commended on their achievements in 2018, some of which have been profiled in this report. Others include:

- Our Design Robotics team were awarded a Vice-Chancellor's Awards for Excellence – Mixed Team Award
- QUT eprints honoured Design Lab's Prof Marcus Foth for his 240 publications attracting 149,000 downloads, which is an amazing milestone.
- Dr Verena Thomas was the recipient of an Asia Pacific Screen Award from the Brisbane Mayor.
- HDR student Kamal Wasala won the Visualise your Thesis prize
- Prof Vesna Popovic was honoured by the Design Management Institution in receiving a Design Value Award 2018 (Honourable Mention). This is one of the 12 awards that recognises international projects that have a social impact, financial gain or culture change. The award is given for leadership and vision of the Human Systems Program within the Airports of the Future project. The Design Value Award winners are exemplars in their fields.
- Along with colleagues from the University of Canberra, Prof Lisa Scharoun was awarded a PIA (Planning Institute of Australia Award) for Public Engagement and Community Planning for their work on a project called *Shaping Spaces for Generation Z*.

We hosted over a dozen academic visitors, mostly international, who visited from between a few days to 9 months and contributed time, exchanged ideas and experiences and enriched the research culture of the Lab.

Some notable visitors included:

- A/ Prof LiHao Chen, Fu Jen Catholic University, Taiwan
- Dr Onur Mengi, Izmir University of Economics, Turkey
- Rasmus Bertelsen, Copenhagen Solutions Lab, Denmark
- Dr Luisa Bravo, Bravo Design, Bologna Italy
- Duane Elverum, CityStudio Vancouver, Canada
- Dr Ellen Saethre-McGuirk, NORD University, Norway
- Christer Windeløv-Lidzélius, Kaospilot, Aarhus, Denmark
- Professor Paul Dourish, University of California, Irvine.

## Visiting Researcher Profile

### Dr Ellen Saethre-McGuirk

Ellen is A/Prof at Nord University, Norway, and visited the Design Lab for six months in 2018. Ellen's research interests are at the crossing points between philosophical aesthetics, modern and contemporary art and design, and cultural pedagogy within the digital sphere. Her work explores areas of learning, creativity, and the creative act on and through the digital interface in relation to working with materials and the physical object.

Interested in the philosophical, pedagogical, and educational aspects of the design of human-computer interaction, Ellen has looked at instructional design and practice in digital art and design education from the perspective of the pupil, the teacher, and the PhD candidate. During her time working with QUT Design Lab, Ellen engaged heavily in the research community and highlighted the value of connecting with international researchers through:



- A Guest Seminar: Experience and Understanding through Digital Innovations that explored how we make use of the digital in art and design education and what happens at the intersection of these things.
- Publishing locally on why we need some perspective on landscape photography in the Instagram age in the Conversation
- Exhibiting her own work, Norwegian Sublime, in the Frank Morley Gallery. Not merely searching for "Instagram-able" contemporary imagery depicting the scenic and the beautiful, Norwegian Sublime is an art-as-research and didactic art development project which aims to uncover ways in which quotidian photography can examine the fragility of nature, the larger-than-life experience of the world, and the fleeting experiences of our natural surroundings.



# 5.0 Publications

Across the 2018 calendar year, QUT Design Lab researchers published over 100 items. A full list of the 2018 publications are available on our website with a snapshot of the breadth of topics and titles highlighted below.

## BOOKS

1. Dezuanni, Michael L., Foth, Marcus, Mallan, Kerry M., & Hughes, Hilary E. (2018) *Digital Participation through Social Living Labs: Valuing Local Knowledge, Enhancing Engagement*. Elsevier, Amsterdam, The Netherlands.

## BOOK CHAPTER

1. Blackler, Alethea, Popovic, Vesna, & Desai, Shital (2018) Research Methods for Intuitive Interaction. In Blackler, Alethea (Ed.) *Intuitive Interaction: Research and Application*. CRC Press (Taylor and Francis), Boca Raton (FL).
2. Blackler, Alethea, Zelenko, Oksana, Chamorro-Koc, Marianella, Rittenbruch, Markus, & Sade, Gavin J. (2018) Design research: methodological innovation through messiness. In Filimowicz, Michael & Tzankova, Veronika (Eds.) *New Directions in Third Wave Human-Computer Interaction: Volume 2 – Methodologies*. Springer, pp. 131-154.
3. Brott, Simone (2018) A Marxist critique of iconic architecture. In Brisbin, Christopher A. & Thiessen, Myra (Eds.) *The Routledge Companion to Criticality in Art, Architecture, and Design*. Routledge (Taylor & Francis), Milton Park, Abingdon, Oxon New York, NY.
4. Chamorro-Koc, Marianella & Caldwell, Glenda Amayo (2018) Designing for viable futures: Community engagement as social innovation. In Johnston, Kim A. & Taylor, Maureen (Eds.) *The Handbook of Communication Engagement*. John Wiley & Sons Inc, Hoboken, N.J, pp. 301-310.
5. Craik, Jennifer & Horton, Kathleen (2018) Innovation and impact of sustainable Australian Indigenous fashion. In *Mapping Sustainable Fashion: Global Perspectives*. Bloomsbury Academic, London; New York. (In Press)
6. Craik, Jennifer (2018) Athleisure: On the materiality and transgression of sports uniforms. In *Fashion and Materiality: Cultural Practices, Global Contexts*. Bloomsbury Academic, London ; New York. (In Press)
7. Craik, Jennifer (2018) Fashion: An urban industry of style. In Krajina, Zlatan & Stevenson, Deborah (Eds.) *The Routledge Companion to Urban Media and Communication*. Routledge, London. (In Press)
8. Craik, Jennifer (2018) From iconography to inspiration: Australian Indigenous references in contemporary fashion. In *Communicating Transglobal Fashion*. Intellect, Bristol, England. (In Press)
9. Crowther, Philip (2018) Re-valuing construction materials and components through design for disassembly. In Crocker, Robert, Saint, Christopher, Chen, Guanyi, & Tong, Yindong (Eds.) *Unmaking Waste in Production and Consumption: Towards a Circular Economy*. Emerald Publishing Limited, Bingley, United Kingdom, pp. 299-311.
10. Foth, Marcus, Mitchell, Peta, & Estrada Grajales, Carlos (2018) Today's internet for tomorrow's cities: On algorithmic culture and urban imaginaries. In Hunsinger, Jeremy, Klastrup, Lisbeth, & Allen, Matthew (Eds.) *Second International Handbook of Internet Research*. Springer. (In Press)
11. Horton, Kathleen & Payne, Alice (2018) 'Imagination wove this flesh garment': Fashion, critique and capitalism. In Coombs, Gretchen, Sade, Gavin, & McNamara, Andrew E. (Eds.) *Undesign: Critical Practices at the Intersection of Art and Design*. Routledge (Taylor & Francis), India.
12. Miller, Evonne, Donoghue, Geraldine, Sullivan, Debra, & Buys, Laurie (2018) Later life gardening in a retirement community: Sites of identity, resilience and creativity. In Davenport, David, Newman, Andrew, & Goulding, Anna (Eds.) *Creativity and Resilience in Older People*. Policy Press, Bristol, UK. (In Press)
13. Payne, Alice & Bulley, Kiara (2018) Exercises in critiquing fashion's classic styles in the design studio. In Kent, Holly (Ed.) *Teaching Fashion Studies*. Bloomsbury Academic, London, pp. 147-153.
14. Payne, Alice, Ibanez-Arricivita, Icaro, & Pearson, Lydia (2018) New materiality: "Making do" and making connections. In Nimkulrat, Nithikul, Ræbild, Ulla, & Piper, Anna (Eds.) *Soft Landing*. Aalto University School of Arts, Design and Architecture, Helsinki, Finland, pp. 35-50.
15. Rittenbruch, Markus & Donovan, Jared (2018) Direct end-user interaction with and through IoT devices. In Soro, Alessandro, Brereton, Margot, & Roe, Paul (Eds.) *Social Internet of Things*. Springer, pp. 143-165.
16. Sawang, Sukanlaya & Guaralda, Mirko (2018) Well-being restoration in the workspace. In Coles, Richard, Costa, Sandra, & Watson, Sharon (Eds.) *Pathways to Well-being in Design: Examples from the Arts, Humanities and the Built Environment*. Routledge, New York.
17. Yigitcanlar, Tan, Guaralda, Mirko, Taboada, Manuela B., & Pancholi, Surabhi (2018) Place making for knowledge generation and innovation: Planning and branding Brisbane's knowledge community precincts. In Yigitcanlar, Tan & Bulu, Melih (Eds.) *Urban Knowledge and Innovation Spaces Insights, Inspirations and Inclinations from Global Practices*. Routledge (Taylor & Francis), New York, pp. 115-147.

## JOURNAL ARTICLE

1. Amirkhani, Mehdi, Garcia-Hansen, Veronica, Isoardi, Gillian, & Allan, Alicia (2018) Innovative window design strategy to reduce negative lighting interventions in office buildings. *Energy and Buildings*. (In Press)
2. Bilandzic, Ana, Casadevall, Dario, Foth, Marcus, & Hearn, Gregory N. (2018) Social and spatial precursors to innovation: The diversity advantage of the creative fringe. *The Journal of Community Informatics*, 14(1), pp. 160-182.
3. Brott, Simone (2018) The Le Corbusier scandal, or, was Le Corbusier a fascist? *Fascism: Journal of Comparative Fascist Studies*, 6(2), pp. 196-227.
4. Chamorro-Koc, Marianella & Caldwell, Glenda Amayo (2018) Viable futures through design: Community engagement experiences in the creative industries. *Creativity Studies*, 11(1), pp. 213-229.
5. Chamorro-Koc, Marianella & Kurimasuriyar, Anoma (2018) Insights from studio teaching practices in a creative industries faculty in Australia. *Arts and Humanities in Higher Education*. (In Press)
6. Crowther, Philip (2018) A taxonomy of construction material reuse and recycling: Designing for future disassembly. *European Journal of Sustainable Development*, 7(3), pp. 355-363.



7. Esmaeilpoorarabi, Niusha, Yigitcanlar, Tan, & Guaralda, Mirko (2018) Place quality in innovation clusters: An empirical analysis of global best practices from Singapore, Helsinki, New York, and Sydney. *Cities*, 74, pp. 156-168.
8. Esmaeilpoorarabi, Niusha, Yigitcanlar, Tan, Guaralda, Mirko, & Kamruzzaman, Md. (2018) Evaluating place quality in innovation districts: A Delphic hierarchy process approach. *Land Use Policy*, 76, pp. 471-486.
9. Estrada Grajales, Carlos, Mitchell, Peta, Foth, Marcus, & Satchell, Christine (2018) Rat running the G20: Collective intelligence for navigating the disrupted city. *AI & Society*, 33(1), pp. 133-146.
10. Foth, Marcus (2018) Participatory urban informatics: Towards citizen-ability. *Smart and Sustainable Built Environment*, 7(1), pp. 4-19.
11. Guaralda, Mirko, Mayere, Severine, Caldwell, Glenda Amayo, Donovan, Jared, & Rittenbruch, Markus (2018) The InstaBooth: An interactive methodology for community involvement and place-making. *Journal of Place Management and Development*. (In Press)
12. Houghton, Kirralie, Foth, Marcus, & Hearn, Gregory N. (2018) Working from the other office: Trialling coworking spaces for public servants. *Australian Journal of Public Administration*, 77(4), pp. 757-778.
13. Hu, Xin, Xia, Bo, Buys, Laurie, & Skitmore, Martin (2018) Providing a sustainable living environment in not-for-profit retirement villages: A case study in Australia. *Facilities*, 36(5/6), pp. 272-290.
14. Miller, Evonne (2018) "My hobby is global warming and peak oil": Sustainability as serious leisure. *World Leisure Journal*.
15. Pancholi, Surabhi, Yigitcanlar, Tan, & Guaralda, Mirko (2018) Attributes of successful place-making in knowledge and innovation spaces: Evidence from Brisbane's Diamantina knowledge precinct. *Journal of Urban Design*. (In Press)
16. Pancholi, Surabhi, Yigitcanlar, Tan, & Guaralda, Mirko (2018) Societal integration that matters: Place making experience of Macquarie Park Innovation District, Sydney. *City, Culture and Society*, 13, pp.
17. Parra-Agudelo, Leonardo, Choi, Jaz Hee-jeong, Foth, Marcus, & Estrada, Carlos (2018) Creativity and design to articulate difference in the conflicted city: Collective intelligence in Bogota's grassroots organisations. *AI & Society*, 33(1), pp. 147-158.
18. Payne, Alice (2018) Teaching sustainable fashion through ethics and encounters. *Journal of the Home Economics Institute of Australia*, 25(1), pp. 2-9.
19. Pinxit, Vaughn (2018) Navigating the methodology of an interdisciplinary art and design practice with conscious bridging. *International Journal Of Art & Design Education*. (In Press)
20. Pringle, Sofie & Guaralda, Mirko (2018) Images of urban happiness: A pilot study in the self-representation of happiness in urban spaces. *The International Journal of the Image*, 8(4), pp. 97-122.
21. Rehm, Sebastian, Foth, Marcus, & Mitchell, Peta (2018) DoGood: Examining gamification, civic engagement, and collective intelligence. *AI & Society*, 33(1), pp. 27-37.
22. Rieger, Janice, Herssens, Jasmien, & Strickfaden, Megan (2018) Spatialising differently through ability and techné. *CoDesign*. (In Press)
23. Scharoun, Lisa, Davey, Rachel, Cochrane, Tom & Mews, Gregor (2018) Designing healthy futures: involving primary school children in the co-design of a health report card, *International Journal of Design Creativity and Innovation*.
24. Segalowitz, Miriam & Chamorro-Koc, Marianella (2018) Genuine participation in design practice: Towards a possible metric. *International Journal Of Art & Design Education*, 37(2), pp. 199-210.
25. Svensdotter, Anna & Guaralda, Mirko (2018) Dangerous safety or safely dangerous. Perception of safety and self-awareness in public space. *The Journal of Public Space*, 3(1), pp. 75-92.
26. Thomas, Verena, Kauli, Jackie, & Borrey, Anou (2018) Harnessing community-led innovations: the role of participatory media in addressing gender-based violence. *Development in Practice*, 28(3), pp. 345-357.
27. Villalba, Clare, Jaiprakash, Anjali, Donovan, Jared, Roberts, Jonathan M., & Crawford, Ross (2018) Unlocking the value of literature in health co-design: Transforming patient experience publications into a creative and accessible card tool. *Patient : Patient-Centered Outcomes Research*, 11(6), pp. 637-648.
28. Wright, Natalie, Miller, Evonne, Dawes, Les A., & Wrigley, Cara (2018) Beyond 'chalk and talk': Educator perspectives on design immersion programs for rural and regional schools. *International Journal of Technology and Design Education*. (In Press)

## CREATIVE WORKS

1. Brott, Simone (2018) *Calatrava in Athens. The architect as financier and the iconic city (exhibit) in We The Public Space (Stall)*, in *World Urban Forum WUF9: Cities 2030, Cities for all: Implementing the New Urban Agenda*. [Exhibition/Event]
2. Seevinck, Jennifer (2018) *Ruby Corrents 2.0*. [Visual Artwork]
3. Teixeira, Muge Belek Fialho, Teixeira, Frederico Fialho, Donovan, Jared, Caldwell, Glenda Amayo, Burden, Alan, & Wagdy, Ayman (2018) *Robotic Morphologies*. [Exhibition/Event]
4. Thomas, Verena, Kauli, Jackie, Bai Magea, Wendy, Foster, Robert, & Horst, Heather (2018) *Mobail Goroka*. [Film/Video]
5. Thomas, Verena, Kauli, Jackie, Mek, Agnes, & Kelly-Hanku, Angela (2018) *Young & Positive*. [Film/Video]
6. Turner, Jane (2018) *Game On Festival 2018 (GO423 2018)*. [Festival]
7. Turner, Jane (2018) *Rolling Stories: Table-top RPGs for engaging students in science*. [Exhibition/Event]
8. Weir, Ian James (2018) *The radical centre: a manifesto for bushfire resilient architecture*. [Performance]
9. Weir, Ian James, Scott, Andrew, McClure, Shalene, Thoo, Sid, & Watson, Tim (2018) *Apex Point House: Performance based, bushfire resilient architecture*. [Design/Architectural Work]
10. Weir, Ian James, Thoo, Sid, Hoger, Clay, Lodge, Kevin, & Sherwood, Peter (2018) *Ocean Fire House: A performance-based solution to building in bushfire prone areas*. [Design/Architectural Work]

# 6.0 Grants

## New Commercial grants awarded, 2018

<b>Project Title</b>	<b>Bougainville Audience Study</b>
<b>Funding Body/ies</b>	Department of Foreign Affairs and Trade (DFAT)
<b>Project Team</b>	Dr Verena Thomas
<b>Total Amount Awarded</b>	<b>\$88,380</b>

<b>Project Title</b>	<b>Caring for the carer: development and pilot testing of an online intervention to improve carer preparedness to provide care for family carers of primary brain tumour patients</b>
<b>Funding Body/ies</b>	Brain Tumor Alliance Australia
<b>Project Team</b>	Prof Alethea Blackler, Dr Danette Langbecker, Prof Anna Nowak, Dr Georgia Halkett
<b>Total Amount Awarded</b>	<b>\$10,000</b>

<b>Project Title</b>	<b>Mentoring Digital Mentors – Facilitating Impactful Digital Ability Programs for Australians at Risk of Digital Exclusion</b>
<b>Funding Body/ies</b>	QUT Strategic Links with Industry Pilot Grant with Australia Post and LifeTec Australia
<b>Project Team</b>	A/Prof. Michael Dezuanni, Prof Jean Burgess, Prof Marcus Foth, A/Prof Peta Mitchell
<b>Total Amount Awarded</b>	<b>\$69,400</b>

<b>Project Title</b>	<b>Pikinini Kisim Save Education Project</b>
<b>Funding Body/ies</b>	Department of Foreign Affairs and Trade (DFAT)
<b>Project Team</b>	Dr Verena Thomas, Dr Jackie Kauli, Dr Jeremy Kerr, Dr Oksana Zelenko
<b>Total Amount Awarded</b>	<b>\$430,858</b>

<b>Project Title</b>	<b>Putting End-Users in Charge of Algorithms: Privacy and Autonomy by Design</b>
<b>Funding Body</b>	Consumer Policy Research Centre (CPRC)
<b>Project Team</b>	Prof Marcus Foth, Dr Monique Mann, A/Prof Nicolas Suzor, A/Prof Peta Mitchell, Dr Kylie Pappalardo
<b>Total Amount Awarded</b>	<b>\$39,498</b>

## CRC Projects awarded, 2018

<b>Project Title</b>	<b>BeefLedger Export Smart Contracts Project: Proof of Concept</b>
<b>Funding Body/ies</b>	Food Agility CRC Limited
<b>Project Team</b>	Prof Marcus Foth, Prof Uwe Dulleck, Dr Felicity Deane
<b>Total Amount Awarded</b>	<b>\$1,000,000</b>

<b>Project Title</b>	<b>Integrated City Planning Using the RAISE Toolkit</b>
<b>Project Type</b>	CRC for Spatial information (CRCSI)
<b>Project Team</b>	A/Prof Markus Rittenbruch, Prof Marcus Foth, A/Prof Peta Mitchell, Mr Bryce Christensen, Prof Christopher Pettit
<b>Total Amount Awarded</b>	<b>\$84,000</b>

## New Consultancy projects awarded, 2018

<b>Project Title</b>	<b>Our Care Journey</b>
<b>Funding Body/ies</b>	The Ageing Revolution
<b>Project Team</b>	A/Prof Evonne Miller, Dr Oksana Zelenko
<b>Total Amount Awarded</b>	<b>\$4,545</b>

## Other (Scholarships)

<b>Project Title</b>	<b>BeefLegends: Stories from the community</b>
<b>Funding Body/ies</b>	Food Agility CRC
<b>Project Team</b>	Prof Marcus Foth, Prof Greg Hearn, Mr John (Jock) McQueenie (DCI student)
<b>Total Amount Awarded</b>	<b>\$90,000 (\$45,000 x 2 years)</b>

<b>Project Title</b>	<b>Dr Alice Payne, Ms Zoe Mellick, Dr Erin Peterson</b>
<b>Funding Body/ies</b>	Cotton Research and Development Corporation (CRDC)
<b>Project Team</b>	Dr Alice Payne, Ms Zoe Mellick, Dr Erin Peterson
<b>Total Amount Awarded</b>	<b>\$49,654 (2 scholarships, 1 x \$29,754, 1 x \$28,900)</b>

<b>Project Title</b>	<b>Lack of Proper Urban Settlement Planning the Major Cause of Crime in Urban PNG</b>
<b>Project Type</b>	The Papua New Guinea University of Technology
<b>Project Team</b>	Dr Verena Thomas, Miss Wilma Molus
<b>Total Amount Awarded</b>	<b>\$59,490</b>



# 7.0 Future Directions



*BeefLedger led by Prof Marcus Foth is one of the first projects supported by the Food Agility CRC*

2019 is already shaping up to be another productive and impactful year, as the Creative Industries Faculty is coordinating QUT's presence at the World Science Festival in March and will showcase the work of several QUT Design Lab researchers.

In February, working in collaboration with IFE Transforming Innovation Systems Platform, the QUT Business School, and the IMCRC Design Robotics Open Innovation network, we will host a visit from Prof Marcel Bogers from Copenhagen. He will keynote a breakfast symposium discussing Open Innovation from the perspectives of different industry sectors, including mining, food, policy and manufacturing – and the event will be opened by the Minister of Innovation Hon Kate Jones MP.

In April, we will run a one-week event promoting Inclusive Design and Design for All abilities – the DFA Week will include an international Symposium (with three international Visiting Fellows from Belgium and Canada), In Focus Blind Photography exhibit at the QUT Art Museum, Touch-able images exhibition in CIF Z9, Community and Industry co-design workshops with design students & faculty and the QUT Art Museum, DFA Keynote lecture and Design Exhibition at The Cube and VIP Stakeholders workshop.

And, in the second half of the year, we intend to have a large Design Summit, bringing together policymakers, design researchers and practitioners. To engage with all the lab activities in 2019, please connect with us on Facebook or twitter.



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