



# Kurt Seemann

## Professor (Retired) of Cross-cultural Technological Comprehension in Education

Victoria, Australia | [kseemann2@me.com](mailto:kseemann2@me.com)

⇒ [Google Scholar](#),  
[Linked in profile](#),  
[Selected Works](#)

### Place of birth

Australia

### Skills

Educational Leadership:  
Research and Teaching

Teamwork and Mentoring

STEM/STEAM Education:

Science (Applied  
Physics/Engineering  
Sciences; Design led STEM;  
Computational thinking  
fundamentals of  
visual/block coding of  
devices)

Cross-Cultural STEM &  
Resilience Education

Creative Thinking

Design Thinking

Transdisciplinary  
Communication Skills

Proven ability to strategically  
create, lead and mentor  
colleagues in innovative high  
performing growth programs  
in education and research

WWCC #1060095A-01 E  
(Expires: 19/07/22)

### Languages

German

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## Profile

**Passionate trans-disciplinary educator/leader** with a keen interest in initial teacher education, teacher confidence, creativity, cross-cultural and Indigenous *Technologies/STEM* education, and *strategic leadership* in fostering highly successful and collegial teaching-research outcomes. Personal areas of curriculum-method expertise include STEM education, with a sub-interest in *design thinking* in K-12 child development for fostering innovation and entrepreneurial capabilities.

**National and international reputation of excellence** in the role schools play for building regional community resilience and fostering *technological comprehension* through *technacy education* strategies in the classroom, online or in the maker-space learning environment (holistic approaches to achieving developmental milestones in technology education inclusive use of play-based guided discovery, through to extension and enrichment via *design thinking* strategies and learning-innovations). I move easily between flipped classrooms, blended learning and wholly online learning using engaging technologies. I place a high value on scaffolding innovative capabilities among pre-service undergraduates, in-school professional development, and in-service-Masters and Doctoral candidates.

I have presented as a visiting scholar in Norway (Primary School teachers), England (STEM and Design ITE), Canada (Technology Education Academics), Hong Kong (Design thinking presentation), New Zealand (Technology education), India (community resilience and design thinking), Denmark (Design thinking), Sweden (STEM and Design Thinking) and Finland (STEM and Design Thinking).

I was invited, and presented to, the United Nations Habitat III Symposium in Ecuador in Oct 2016, including to give a statement to the UN Habitat Secretariat.

UN Habitat only occurs every 20 years since 1976 to collate and develop global directional agreements on sustainable and fulfilling human, economic and ecological futures related to rural, regional and urban community needs and development in balance with ecology.

**Teaching-Research Nexus and leadership:** Exceptional track record in establishing, leading and developing new high income and impact research centres, programs and PhD teacher-cohorts. I am an ARC assessor, was expert advisor to COAG (2010-2011) and have led as Lead Chief Investigator over \$5.8 million in research grants (HERDC) in all four research categories the most recent being Cat 3 in 2020 for the [Victorian Government's Digital Strategy for Teachers](#).

I am a listed Mentor for fellow Swinburne colleagues called upon annually by the Research Office to lead and guide workshops on scholarship especially linked to

education, innovation and cultures. I currently (2020) supervise 11 PhDs, eight of which are in-Service Teachers investigating learning through Digital and Design Innovation Technologies. I have supervised nine PhDs and 24 Honours (1 and 2A) thesis in education to completion, and a further 110 Final year undergraduate teacher research projects that met quality requirements to be cataloged and hard bound in the SCU Coffs Harbour Campus Library. I have examined 4 PhDs and 1 EdD.

As Chair of Ethics and member of the high risk Human Research Ethics Committee, I have reviewed over 1,500 Research Ethics applications since 2014 resulting in me having developed substantial insight into a diverse range of research methods to guide, teach, and lead colleagues, and higher degree research candidates. I have senior level governance expertise having been elected to the University Senate (2015-2016), the Governing Board of a K-12 College (current: 2020-2023) and previously (2011-2013) as an ASIC registered Board Director to an Aboriginal Aged Care organisation (to support their adult education strategies).

I have successfully established and led high growth research centres (as founding Centre Director), and CRC centres (as national Core Program Manager-Lead Investigator) that engaged regional and international communities and partnerships. I am particularly interested in **the link between regional schools and the contributions they can make to strengthening community resilience** through science, technology and key aspect of design-thinking education.

**Teaching and Curriculum:** I have extensive experience in developing innovative and award winning curriculum, supporting and assessing professional-experience placements, and writing and checking the integrity of year 12 exam papers for State authorities . Having taught secondary and TAFE in New South Wales (1 year part-time) and the Northern Territory (13 years Full-time): I created the award winning National Post Compulsory VET Program for Remote and Regional Aboriginal Communities known as the Certificates in Applied Design and Technology that graduated over 3000 Aboriginal Youth and Adults (as at 2013) in Central Australia to progress to further studies or employment.

I possess significant insight into **mentoring early- and mid-career academics** and the professional expectations demanded for K-12 schools. My **trans-disciplinary** background informs **my passion for teaching in a diverse set of career contexts**, the demands placed on new and career mobile teachers and ideas to support their professional aspirations within and beyond the 'classroom'.

I am skilled and trained to teach ITE units in the topic domains of:

- Cross-cultural and Aboriginal Science and Technologies Education
- Digital and Design Technologies Methods wrt integrated STEM learning and teaching
- Science: strength is in teaching Engineering system (yrs 4-12), applied physics (yrs 7-12), basic chemistry/environmental sciences (yrs 7-8), and scientific methods of discovery and hypothesis testing/recording/reporting (yrs 4-12).
- Teacher as Researcher/Research Methods & Ethics/Post Graduate Research
- Assessment Strategies, and Data for learning and teaching improvement
- Diversity and Inclusion

- Psychological Sciences: Abnormal Psychology, Social Psychology, Research Methods in Educational Psychology, basic and complex psychological processes.
- Professional Teacher Placement: school mentor and pre-service teacher placement support.

## Education

### **Certificate IV: Assessment and Workplace Training, Southern Cross Human Resources Development (RTO) of SCU, Lismore**

June 2002

- Training to qualify me to teach VET in Pathways to University programs

### **Graduate Certificate (Management Competence), Australian Institute of Management in association with Deakin Univeristy, Melbourne**

September 1999

Demonstrated and assessed against international leadership, management and human-resource administration standards. This credential included:

- Managing, leading, and developing people
- Managing financial resources: including financial ratios for tracking productivity, understanding accrual accounting systems and financial reports, and cash-flow accounting.
- Managing Information: including cross-discipline communication, KPAs and KPIs, and efficient and effective organizational meetings and systems.
- Managing operational improvement: professional mentoring, performance reviews, goal setting of staff.
- Managing, developing, and implementing strategies

### **Certificate of Attainment, Institute for Aboriginal Development, Alice Springs**

August 1997

This innovative Aboriginal Cultural Awareness Program, delivered by the *Language and Culture Centre of AID*, developed our hands-on skills in Traditional and Contemporary Central Australian **Aboriginal STEM knowledge and skills-**. Among the hands on STEM skills we had to demonstrate the culturally appropriate and technically correct way of using and making in remote desert locations:

- Fire
- Spinifex glue (resin)
- Using fire to engineer a straight long hunting spear
- Using stone, kangaroo tail sinew, spinifex resin and contemporary geology tools to engineer a quartz adze
- Locate and understand the properties of various ocher materials
- Hacks for bush survival and brush mechanics in car repair
- Various Traditional tools, water management, and environment management approaches.
- How Children learn via song, dance and stories traditional STEM methods.

## **PhD, University of New South Wales, Sydney**

May 1997

Thesis: “*The Socio-technical sustainability of shelter systems and hardware in remote Aboriginal communities*”

This research examined the roles that school and post-primary education sectors play in fostering resilience and design innovation talent among remote and regional Australian Aboriginal communities.

## **BSc.DipEd (Hons), University of New South Wales, Sydney**

May 1987

A five year, integrated three compulsory majors teacher qualification in Science and Technology Education with externally examined honours thesis.

Majors included,

- Psychology (Specialised in Abnormal Psychology), Design and Innovation, and Secondary School Science and Technology Education.
- The Honours program track commenced in year three of five, included five Masters Units in Educational Administration and educational research methods. Honours thesis was a critical study of holistic applied technology education in NSW schools.

## **Employment History**

### **Associate Professor, Swinburne University of Technology, Hawthorn**

August 2012 – Present

- **(2019 - present) Stream Leader** within the Smart Cities Research Institute: My program investigates the educational basis for resilient and capable future citizens among K-12 schools with the view of mapping child development milestones in *technological comprehension*. As Founding Centre Director of the Centre for Design Innovation, I issued a PhD Scholarship (APA equivalent) to an In-service Teacher of STEM, and since worked with my colleague (Deputy Chair of Education) to build a strong cohort of in-service teacher's all undertaking a Technologies/STEM education themed PhD. In the last 2 short years we have formed the largest School Teacher PhD cohort in STEM and Digital Technologies education - mostly primary teachers.
- **(2017-2019) Appointed to other acting roles:** Acting Dean of School, Acting Associate Dean of Research (Faculty of Health, Arts and Design), and Acting Chair of the SUHREC (2018-2019).
- **(2016 - present) Category F Member** (Cat. F: skilled research academic: education, technology, and cross-cultural research) of the Swinburne University Human Research Ethics Committee SUHREC (high risk senior committee). Reviewed over 1500 research ethics applications since 2014.
- **(2014 - present) Chair** of Swinburne Human Research Ethics Sub-Committee (SHESC).
- **(2014-2016) School Director of Research**, and Higher Degree Research Training)

- **(2013-2018) Founding Centre Director:** I was recruited to Swinburne from Northern NSW, to turn around their School of Design's research performance based on my reputation for culture change and productivity leadership track record at SCU and also prior at The Centralian College/Senior Secondary, Alice Springs, NT. I built a positive and highly successful research culture and dramatically improved the school's outputs and income trajectory. Maintaining an educational and external partnership theme in my approach, I was successful in producing the University's first design research centre for innovation, raising their metrics from only ~\$288K of external research income from across the entire school staffing in 2013, to over \$3million pa (HERDC Cash) (2018), with only 8.3FTE investigators. My strategic leadership and personal focus on the a teaching-research-community partnerships nexus played an instrumental role raising the university's ERA to world class (3/5) for the first time, and QS scale to to under 50 list.
- **QS Nominated Assessor (Current)**

### **Senior Academic, Southern Cross University, Coffs Harbour. NSW**

1999 – 2012

- **(1999-2009) School of Education. *Founding Course Director*** and unit writer: Bachelor of Education (Technologies), Bachelor of Technology Education/Honours. I was recruited to design, write, teach, and coordinate 24 of the 32 unit degree. I lead the new degree through the Academic Board and its four yearly update reviews. The review process included me taking the lead role to negotiate the revised degree through the NSW teacher accreditation process, build local school partnerships.
- I won the first ever **Vice Chancellor's Course Innovation Award & Grant** in 2003 to teach pre-service undergraduate teachers in two local schools after-hours every week, deliver professional development to local teachers, and also actually teach year 11 students to hone my classroom teacher skills as an arrangement to release the classroom teachers for planning time. I developed a VET pathways to honours and PhD program. Software Design and Information Technology was a major stream.
- **(2003-2010): National Core Program Leader: Desert Knowledge CRC.** Regional and Remote Community Resilience: my research component investigated the role of education in compulsory schooling and its impact on local community health and resilience.
- **(2011):** Appointed to Acting Head of Campus, Coffs Harbour Education Campus of SCU.
- **(2011-2012) recruited (temporarily) to the School of Tourism and Hospitality Management as their Director of Research,** and Director of Higher Degree Research Training to grow their research profile based on my success with the DKCRC work in regional and remote education research across northern Australia (**including the Cairns and Diamantina region of Queensland**), and to link to regional educational development and success in winning large trans-disciplinary research grants and discipline diverse national research teams as the lead Chief Investigator.

- **(2013-2017) Led the winning of an ARC-Linkage Grant in Aboriginal Participation in Low Carbon Economies** in partnership with Curtin University. My co-lead role was to investigate the educational pathways starting from year 9 to VET completion barriers and opportunities for Aboriginal community access to the green economy.
- **2013 Recruited to Swinburne Design to turn around their poor research performance.** Swinburne approached me to help them build a productive research culture in the school of design. I transferred my ARC grant to Swinburne and was the only ARC and CRC winning grant skilled person in their school. The terms of the role included Swinburne being aware that I was a Teacher/Educationist researcher with an interest in culture, communities and *designing thinking in STEM and technology education*.

### **Adjunct Associate Professor, Curtin University, Perth**

2009 – 2012

- **Appointed as Adjunct Associate Professor** to partner as educationist in their sustainability research program

### **Post Doctoral Fellowship, Commonwealth Scientific and Industrial Research Organisation (CSIRO), North Ryde, Sydney**

1998 – 1999

- Investigating the role social and educational factors play in urban transformations drawing on my PhD work in rural and remote schools and adult education centres across Northern Australia including **Queensland**.

### **Executive Teacher, Centralian College, Northern Territory Department of Education and Training, Alice Springs, NT**

1987 – 1997

- **(1987-1991) Teacher and Education Researcher:** NT Government Department of Education and Training: Alice Springs.
- **(1992): Received the national Curriculum Innovation Award** from the Australian Association of Adult and Community Education (AAACE) for my work in producing the innovative national 'bothways' Technology Course in VET with-and-for Rural and Regional Aboriginal Communities.
- **(1992-1998) Executive Teacher: Education and Research:** NT Government Department of Education and Training: Centralian College (dual sector college with senior secondary school and TAFE).

### **Technology Teacher, Secondary, Holy Spirit College, Illawarra Diocese Catholic Schools, Bellambi, NSW**

1986 – 1986

- My early skills in *Design-Thinking for secondary students* was recognised by the head of the Catholic Schools Curriculum and Development unit. I was recruited to lead Professional Development Workshops in local Schools on my approach.

## **Extra-curricular activities**

**Board Director, Governing Board of Billanook College K-12, Billanook College, Mooroolbark**

2020 – Present

- Peer appointed, this role involves contributing, as an [ASIC](#) registered board director, to the strategic [governance of Billanook College](#).

**Technologies VCE Exam Paper Study Specialist , Vic DET VCAA, Melbourne**

2017 – Present

**Course Advisory Panel: External Academic, Holmsglen College, Melbourne**

2017 – Present

- Appointed on the Holmsglen College Course Advisory Panel as external Lead Academic, and for advising on learning Innovations.

**Convenor, DATTArc, Biennial International Design and Technologies Teachers Association Research Conference., Melbourne**

2016 – Present

**Peer Elected Member of the Australian Technologies Teacher Education Network, ATTEN, Sydney**

2019 – Present

- The newly established national lead Committee of the Australian Technologies Teacher Network appointed me via nomination, as a nationally recognised Expert in Technologies Teacher education to advise and advance the quality of teaching and ITE.

**Editor-in-Chief, International Journal of Ekistics and the New Habitat: the problems and science of human settlements, Melbourne**

2017 – Present

- Acknowledged by the United Nations: Habitat since 1976, I was appointed as the new Editor-in-Chief to present at UN Habitat III in Ecuador to given a Statement to the UN, and cast the plan forward to establish a revised new [e-Journal](#) of research in how regional community develop. My expert contribution is the link between K-12 Education, regional communities and ecological environments. Our First editions will be release Dec 2020 and March 2021. Communities in Turkey, and Communities in India.

**National Committee Member - Elect, RDI-ACFID, Canberra**

2017 – 2020

- **The Research Development Impact (RDI)** is a national governing committee of the Australian Council for International Development (ACFID). The RDI-ACFID directly Advise the Federal Department of Foreign Affairs and Trade on matters of University research in partnership with aid NGOs such as OxFam, Engineers without Borders, Fred Hollows Foundation, World Vision, Burnet Institute and more. My Peer elected position advised on Education and Technology Innovation.

**Board Director: Cross-Cultural Education Innovation Role, Jagun Aged Care Services, Coffs Harbour**

2011 – 2013

- I was recommended by the Vice Chancellor of Southern Cross University and Coffs Harbour City Council to be on the Governing Board of Jagun Aboriginal Aged Care Services. Registered with ASIC, by role on the board was to support strategic advice on youth education using innovative learning technologies to engage the younger Aboriginal Community with inform and aging elders of the Coffs Community group.

**National Expert Advisor on Regional Community Resilience,  
COAG-Combined Organisation of Australian Governments, Canberra**

2010 – 2011

- **COAG Identified me as a national expert** on remote and regional community resilience for Policy research advice on the link between K-9 Schooling and community sustainability.

**Resident Thinker Online/Thinker On Hand., Design and Technologies  
Teachers Association Australia , Melbourne**

2009 – 2012

**HSC year 12 Exam Question Writer, NSW Board of Studies, Sydney**

2004 – 2008

- Sate Appointed HSC Exam paper writer 2003, 2004, 2005, 2006
- Subject Advisory Committee for the Year 7-10 Technology Curriculum
- Subject Advisory Committee for the Year 9-10 Design and Technology Curriculum

**Chair & lead Strategic Advisor, Quality Schools Branch, Federal  
Government, Canberra**

2003 – 2006

- 2004 Seconded to Chair and write the national Vision and Mission Statement for Technology education to 2012.
- 2006 Appointed to write, with co-author A. Fee of DEET, the National Discussion Paper for Teachers K-12 for understanding the *Knowledge Economy and Innovation Agenda*. This paper was a seminal resource on the NSW DET web site for teachers and principals from 2006-2012.

## **Leadership, Management and Service**

**Stream Leader, Smart Cities Research Institute, Melbourne**

January 2019 – Present

- Appointed to lead the program of research in Future Capabilities of the Smart Citizen for emerging digitally enhanced cities and regions.
- Investigates the indicators of technological comprehension in K-12.

**Founding Centre Director, Centre for Design Innovation., Melbourne**

October 2013 – January 2019

- Recruited to Swinburne to create, lead and manage a new high performing research centre and School Culture and raise the ERA to world class with at least \$1mill in cash flow per year, on a 20% growth target pa. This was achieved. By 2018/19 the Centre earned over \$3mill in HERDC Grants pa. and the whole school research culture is highly motivated.

### **Category F Academic Expert Members, Human Research Ethics Committee, Melbourne**

2014 – 2024

- Swinburne University Human Research Ethics Committee (SUHREC) for high risk and in K-12 schools research ethics applications
- Appointed and reappointed in 2019 over two terms (5 years each) as Category F (Expert Academic: technology and education research and regional communities research).
- Acting Chair of SUHREC Having processed over 1500 research ethics applications to date.

### **Chair, Swinburne Human Research Ethics Sub-Committee (SHESC), Melbourne**

December 2017 – December 2023

- Administrate and approve low risk ethics application.

### **Acting Leadership Positions, Melbourne and Coffs Harbour**

January 2010 – December 2018

- Acting Dean of School. Acting Dean of Research for the Faculty of Health, Arts and Design (includes Education Department). Acting Chair of SUHREC (2018-2019).
- Acting Head of Coffs Harbour Education Campus: TAFE, SCU, and Senior Secondary College.

### **School Director of Research, Melbourne**

October 2013 – December 2016

### **School Director of Higher Degree Research Training , Melbourne**

October 2013 – March 2015

### **School Director of Research and Higher Degree Research Training, Coffs Harbour**

January 2008 – July 2012

### **Univeristy Senate: Peer Elected Member, Melbourne**

December 2015 – December 2017

### **National Core Program Manager/Chief Investigator, DKCRC, Coffs Harbour HQ**

2003 – 2010

- Sustainable Remote and Regional Communities: Leading a team I formed of seven Universities, the CSIRO, and four local council and state Governments.

- Sub-Program lead C.I.: Schooling, Education and Community Resilience.

### **Foundation Course Director, School of Education (ITE), Coffs Harbour**

June 1999 – December 2007

- Appointed to create, lead teach and take through teacher accreditation processes the new Technology Education degree that including a major in Digital Technologies.

### **Executive Teacher: Education and Research, Centralian College, Alice Springs**

1992 – 1998

- NT Government Department of Education, Centralian College

## **Peer Recognition - Invited Scholar**

2009 – 2020

- Invited to deliver a 4 part media podcast interview on innovation and technacy education to United Kingdom's Design and Technology Teachers. Host: Dr. Alison Hardy and Prof. Eddie Norman: Show: Apple Podcast Talking D&T. URL: <https://podcasts.apple.com/gb/podcast/talking-d-t/id1460834167>
- Keynote, 2019, Cross-cultural technology education: *Learning from remote community lores*, ACT Annual Design and Technology Teachers Association Conference, 27 Sept 2019, Daramalan College, Dickson, ACT, 2602. URL: <https://dattaact.wordpress.com/keynote-speaker-presenters/>
- Keynote, 2019, *Design led innovation pedagogy and culture*, Presented to the Senior School Leaders in STEM education: professional development workshop (7 Aug 2019), Catholic Education Melbourne, Swinburne University of Technology, Hawthorn.
- Keynote, 2018, Cross-cultural Design Education: at the Biennial International Design and Technology Teacher's Association of Australia's Research Conference: <http://www.Dattarc.org/>
- 2011 to date, Appointed elect, to the position of International Representative on the national Australian Board the Design and Technology Teachers Association (DATTA Oz).
- 2010 and 2011, Appointed by the Victorian Design and Technology Teachers Association, as the inaugural State **Thinker online/Thinker on-Hand**. TO facilitate scholarship for the States profession of teachers of the technological and design studies areas.
- 2010, Selected by the Federal Government of Australia as Australia's lead scholar in Aboriginal Applied Design and Technology Education for Community Development. Contacted to facilitate Policy for COAG.
- 2010, Selected by the Federal Government as one of twenty from across to participate in National School Curriculum (ACARA) in Applied Design Education. I was noted as the lead Australian scholar in the area of Technology Education, Aboriginal Applied Design Education and Sustainability.
- 2010, One of only 3 world scholars invited to deliver a Keynote Paper on *Innovation and Cross Cultural Technology Education Research*, University of British Columbia, Canada.

- 2009 to date Invited as Member of the World Society for Ekistics (limited world membership is 400)
- Keynote to the 2010 for the Victorian Design and Technology Teachers Association National Conference. Received high score accolades as best paper. Title: *“Innovation Education for STEM Teachers”*
- Keynote to the 2009 Vocational and Applied Learning Conference *“Designing our Future”*, Launceston Tasmania.

## International Engagement

2009 – 2020

- Appointed to the International Committee of Technology Educators - Asia Pacific (2019 – present). Monthly online meetings with Professorial Technology Educators from USA (STEM), New Zealand, Australia (only 2 from Australia), Taiwan, Japan, China, Korea,
- Wallingford Public Schools, Massachusetts, USA (July+ 2019). In partnership with my Education Colleague, my work in technacy education recently attracted interest from Salvatore F. Menzo, Ed.D. Superintendent, Wallingford Public Schools, Massachusetts, USA (between NY and Boston). A collaboration project is in discussion stage.
- Design and Technology Teachers Association of Australia Board Director. Convenor the Biennial International K-12 and teacher education DATTA Research Conference in Dec 2018.
- Sheffield-Hallam University-Partnership. Convenor the International Design4Health Research Conference in Dec 2017.
- Binus University MoA 2016-2017, with Dr. Yenny Rahmayati. Co-workshops in technologies and education for flood relief.
- Played an initial role to progress the Joint PhD and Research with 2016-2018: Hong Kong Poly University – School of Design, Tongji University
- India-Australia Grant. joint effort on Bike Helmet Design Project based on design anthropology frames
- New Zealand. Ethno-technology and Design Education Project (2nd CI)
- Indonesia. Joint Research Workshop on Assistive Technology research 2015-2017: University of Malaya
- Columbia, and Ecuador. 2018-2022- Joint Research SCHOLARSHIP – Design Innovation in Waste to Opportunity Project. UN Habitat III Workshop provider 2016 and Statement to the New Urban Agenda by invitation, Quito, Ecuador.
- Ramsey, G. (2003). *Report on Future Directions for Secondary Education in the Northern Territory*. Darwin: Northern Territory Government, Department of Employment, Education and Training, and Charles Darwin University. [several lead recommendations to the NT Government, and over 30 references were dedicated to my research in technacy studies: Dr. Ramsey was Chair of Teaching Australia]
- The Federal Government’s COAG initiative *“Closing the Gap”* identified me as Australia’s Lead expert (2010) to advise on Aboriginal policy related to the sustainability and best practice policy requirements on remote Aboriginal community housing systems.

- Sponsored Keynote for the Technology Educators in Aotearoa – New Zealand, 7-9 Oct 2013. My national reputation in design and innovation education and design is increasingly recognized in a broad range of areas in international networks.  
URL: <http://www.techlink.org.nz/stories.cfm?area=1&SID=155>
- Asia Pacific Symposium on Cultures Based Innovation – New Zealand. (2013+). A ‘by international peer invitation only’ symposium of design leaders who have demonstrated a cross-disciplinary career capability that is also experienced in the complexity of cross-cultural innovation and design research.  
URL: <http://cbinnovation.net/index.html>
- British Collaboration with University of London, Faculty of Design, Goldsmiths. (2012+) Joint publication projects with University of London, Faculty of Design. Prof. Stables, and Reader Stephen Keirl. I have been an invited scholar to Goldsmiths’ Faculty of Design to speak to their exclusive “Design Means” series, my Title in 2012 was: *“Understanding the ‘Loses’ of the Made world through Cross-cultural insights”*.  
URL: <http://www.gold.ac.uk/calendar/?id=5315>
- Norwegian Collaboration (2012+). Review of the with the Trondheim International Baccalaureate school on the role of Design and Innovation education, as well as supervising the principal of that school through his PhD studies focusing on Leadership in Innovation and the impact of the knowledge economy on international schools.
- Canada Collaborations University of British Columbia (UBC), (2010+) (linked to Peruvian and African collaborations). International research collaborations namely with Indigenous Canadian scholars at UBC (A/Prof. Peter Cole, and A/Prof. Patricia O’Riley, see noted book collaboration and later in research grant work submitted to the Canadian SSHRC (Social Sciences and Humanities Research Council). This work is current and in Partnership with colleagues in Peru and Africa.
- Review Board member of, and invited paper to, the International Conference at UBC for *Technological Learning & Thinking: Culture, Design, Sustainability, & Human Ingenuity, 2010*.

## Research

### Research income across Cat. 1, 2, 3 and 4.

Present

**Grant Category, Dates, TITLE, HERDC \$cash Value**

**CI-1 = Lead Chief Investigator**

**CI-2 = Co-lead Chief Investigator**

**TOTAL HERDC Income to date: \$5,859,630.15**

- Cat 2: Government Research Tender, 2019-2020, CI-2: Victorian Teachers use of an Integrated Digital Resources: -Role- cultural study of teacher-technology behaviour. Vic Government – DET., \$50,000.00
- Cat: 3 Consultancy, Aug 2019, CI-2: Catholic Education PD, \$1000.00
- IRG: Internal Competitive Grant, 2018-2022, CI-1: PhD Scholarship awarded (SUPRA) Identifying child development milestones in technology education, \$81,246.00

- IRG: Internal Competitive Grant, 2018-2022, CI-1: PhD Scholarship awarded (SUPRA) Waste in Medellin, Colombia using a culture-technology education framework, \$83,940.00
- Cat 2: Local Government Consultancy, 2018, CI-2: Visualising Community Experiences: Boroondara Customer Journey Mapping Co-Design Research Project in Adult learning of processes, \$29,949.00
- Cat 2 & 3: Joint Industry and Federal Gov Grant, 2017-2018, CI-1: Telescope Stage 2: Rural Farming Parasite Image Recognition, Filter enhancement, Visualisation of Design, \$109,000.00
- Cat 3: Industry Grant, 2017, CI-1: Early prototyping of automotive mobility apps and services around health, well-being, safety for human-computer interactions with autonomous cars, \$28,000.00
- Cat 3: Industry Grant, 2016-2017, CI-1: Telescope: Product & Service Design Research Stage 1, \$99,877.00
- Cat 3: Industry Grant, 2016-2017, CI-1: Shaping Change (Besen Foundation), \$8,000.00
- Cat 3: Industry Grant, 2016, CI-1: Waste Management Education (K to post compulsory community education) and Well-being in Remote Aboriginal and Torres Strait Islander Communities (Stage 1 - Desk Top study) (JULY 2016-DEC 2016), crowd funded via Waste Aid., \$23,000.00
- Cat 1: National Competitive Grant, 2016, CI-1: Modeling the benefits of Swarm Planning: a dynamic way of planning for future adaptation to climate change impacts – Australia-Japan Grant, \$145,000.00
- IRG: Internal Competitive Grant, 2015-2018, CI-1: PhD Scholarship awarded (SUPRA) for my ARC Linkage on Indigenous participation in green growth economies: Aboriginal Education pathways engaged in design thinking, \$88,872.00
- Cat 3: Industry Competitive Grant, 2015-2016, CI-1: Dusted Communities (auDa Foundation Grant), \$53,500.00
- Cat 1: ARC-Nationally Competitive Grant, 2013-2017, CI-2: ARC Linkage – LP120200712 (Swinburne with Curtin University) 2013-2017. Project: “Indigenous participation in a low-carbon economy”, \$226,365.00
- IRG: Internal Competitive Grant, 2012, CI-1: Regional Air Travel viability research in QLD , \$10,000.00
- Cat 2: International Industry Grant, 2012, CI-2: Norwegian Schools Innovation Grant, \$6,000.00
- Cat 4: CRC Grant, 2010-2012, CI-1: Supporting Indigenous Children's Capacity for Innovation in Built Environment., \$20,000.00
- Cat 2: Government Competitive Research Grant, 2010-2012, CI-1: Linking Desert Knowledge with Pedagogy Research for Middle School Curriculum – ASISTM Grant (**Australian School Innovation in Science, Technology and Mathematics**) , \$79,294.00
- IRG: Internal Competitive Grant, 2010, CI-1: Internal Transfers from GRC – CRC for achieving DKCRC Core program Leadership success, \$5,691.00
- IRG: Internal Competitive Grant, 2010, CI-1: School of Education PhD award Top-Up, \$2,500.00
- IRG: Internal Competitive Grant, 2009-2011, CI-1: Postgraduate Scholarship "A" Top up, \$30,000.00
- IRG: Internal Competitive Grant, 2009-2011, CI-1: Postgraduate Scholarship "B" Top up, \$30,000.00

- Cat 4: Cooperative Research Centre DK, 2009-2011, CI-1: Postgraduate Scholarship 'A', \$33,000.00
- Cat 4: Cooperative Research Centre DK, 2009-2011, CI-1: Postgraduate Scholarship "B", \$33,000.00
- cat 3: Consultancy, 2009, CI-1: Minor research project (for TAFE Coffs Harbour), \$750.00
- Cat 2: Government Competitive Research Grant, 2009, CI-1: Commissioned Research TAFE consultancies, \$2,000.00
- Cat 4: Cooperative Research Centre DK, 2007-2010, CI-1: Leadership Project CP4, \$737,437.57
- Cat 4: Cooperative Research Centre DK, 2006-2010, CI-1: Main Project - Core Project 4 Sustainable Desert Settlements , \$2,979,435.08
- Cat 4: Cooperative Research Centre DK, 2006, CI-1: Inception Proposal & Research Framework CP4, \$131,860.00
- Cat 4: Cooperative Research Centre DK, 2006, CI-1: CP4 Sustainable Desert Settlement \$105,957.50
- Cat 4: Cooperative Research Centre DK, 2004-2006, CI-1: Developing Lifecycle models for sustainable investment in desert communities, \$197,456.00
- IRG: Internal Competitive Grant, 2000-2002, CI-1: \* Internal Innovation Grants  
First Ever Vice Chancellor's Innovation Development Grant, \$16,000.00
- Cat 2: Government Competitive Research Grant 1998 CI-1: CSIRO Post-Doctoral Fellow: Socio-technical housing education, CI CSIRO Internal Seed Grand for Socio-technical analysis proposal for research into the lifecycle of Remote Aboriginal Public Housing Education. \$7,000.00
- Cat 2: Government Competitive Research Grant 1995 CI-1: Alekerange (Ali Currang) Community NT, Housing Planning and Education Research (NTG): Lead CI. \$70,000.00
- Cat 2: Government Competitive Research Grant 1989 CI-1: Principle Researcher, Remote Area Waste Impact and Management Needs project, NT Dept of Health and Community Services. Health Vehicle 4WD in-kind provided for 6 weeks + \$3.5K Grant. Alice Springs. \$3,500.00
- Cat 2: Government Competitive Research Grant 1989 CI-1: Principle Researcher, The Aboriginal Technical Worker (ATWORK) national VET Curriculum Feasibility Study Report (\$36K) of the Curriculum Project Steering Group for the Australian Directors of TAFE. (Published) \$36,000.00
- Cat 2: Government Competitive Research Grant 1992-1995 CI-1: (Wulungurru) Community, Educational Research and Development: Priority Community Development Grant – **Housing and Education Strategies-** . Federal Government Australia. \$295,000.00

## **New Research Publications Underway**

Present

### **In Contracted/Invited Book and Book Chapters (2020-2022)**

- **Springer, Book Chapter Invitation** to author on topic of Technology Education and Regional Community Resilience. (Book Ed. A/Prof. Gavin Melles.)

- **Cambridge Scholars: Indigenous Engineering. Invited Book Chapter** on my work in cross-cultural STEM education in remote Aboriginal Communities. (Book Eds. Kutay et al. <https://indigenousengineering.org.au>)
- **Springer, Book Chapter Invitation.** *Contemporary Issues in Technology Education*, Cross-cultural STEM education. (Eds. Prof Mishack Gumbo, Sth Africa and Prof. P John Williams, Australia).
- **Small Caps Publishers. Invited Reference Book.** *Making Worlds, Making Self, Making Sense: Technacy Education Handbook*. (Co-authored Seemann and Keane).

## Scholarly Volumes

Present

1. **\*Seemann, K.**, Parnell, & Marinova, D. (Available 2021) *Greening Frankenstein*, Springer Publications – Science and Business Division. Contract *Themes: Technology Theory, Design, Global Innovations and Sustainability Policy research*. URL: <http://www.springer.com/law/environmental/book/978-94-007-2012-1>
2. **\*Seemann, K.**, Parnell, M., McFallan, S., & Tucker, S. (2008). *Housing for Livelihoods: The Lifecycle of Housing and Infrastructure through a Whole-of-System Approach in Remote Aboriginal Settlements*. Alice Springs, N.T.: Desert Knowledge CRC. (G-Scholar, 18; SelectedWorks Registered user downloads (SW-DL): 276)
3. **\*Guerin, B., Guerin, P., & Seemann, K.** (eds.) (2010). *Seeds of Sustainability: Growing Your Desert Communities*. Alice Springs, N.T.: Desert Knowledge CRC. (G-Scholar, 1; SW-DL: 10)
4. **Seemann, K.** (Ed), (1996) “Quality Measures: Technical Training For Remote Indigenous Communities”, Report to the Australian National Training Authority on two integrated national research projects with the Centralian College, Alice Springs. (140 pages)
5. **\*Seemann, K** (1991) *Remote Controlled Waste: Research Study of Waste in Remote Aboriginal Communities in Central Australia for the Northern Territory Dept of Health and Community Services*. Centralian College, Alice Springs. (G-Scholar, 5; SW-DL: 50)
6. **\*Seemann, K.** and Walker B. (1990) *The Aboriginal Technical Worker Feasibility Study: Report to the Australian Directors of TAFE*, Centralian College, Alice Springs. (G-Scholar, 7)

## Scholarly Contributions by Invitation

Present

### \*Foreword of Book:

1. Newman P, Marinova D, Armstrong R, Marley J, McGrath N, Raven M, Spring F 2008, *Desert Settlement Typology: Preliminary Literature*, ISBN: 1 74158 044 7, Desert Knowledge CRC, Alice Springs. **Foreword by Dr Kurt Seemann.**

**\*Research Team Member (acknowledged) for Federal State of Environment Report 1996 Ch3 – Human Settlements Book:**

1. 1996 Research Officer (acknowledged) selected as expert in remote waste management research by Professor Peter Newman. State of the Environment Report: Chapter 3 - Human Settlements. See page 3-57 in CH3. URL:  
<http://www.environment.gov.au/soe/1996/publications/report/pubs/chap03.pdf>

**Scholarly Book Chapters, (Double blind peer reviewed)**

Present

- \*Jayanti. N., Therese. K., and **Seemann, K.** (2020 in print) Developing Computational Thinking in Children (Years 3 to 12) Through Programming using the Technacy Theory. In Open Conference on Computers in Education OCCE (winning papers for book chapters), Springer.
- \***Seemann, K.** (2015). Culture, Technology and Design Anthropology in the Classroom. In S. Keirl & K. Stables (Eds.), *Environment, Ethics and Cultures: Design and **Technology Education's** contribution to sustainable global futures*. UK: Sense.
- \***Seemann, K.** (2015) Design in Tourism Education: A Design Anthropology Perspective. In D. Dredge & M. Gross (Eds.), *Handbook of Tourism, Hospitality and Events **Education***. Australia: Routledge
- \***Seemann, K.** (2015). Designing for Cultural Groups and Humanisation. In S. Keirl & K. Stables (Eds.), *Environment, Ethics and Cultures: Design and **Technology Education's** contribution to sustainable global futures*. UK: Sense. (G-Scholar, 1)
- \*Turner, A., & **Seemann, K.** (2013). Technology, teaching practice and innovation: a case study into technology teaching. In B. A. Knight & R. V. d. Zwan (Eds.), *Teaching Innovations Supporting Student Outcomes in the 21st Century* (pp. 97-106). Australia: Oxford Global Press
- \*Whittle, S., & **Seemann, K.** (2012). Venice - is it the new Atlantis? In R. vanDerSwan (Ed.), *Current Trends in Technology and Society* (1st ed., Vol. 1, pp. 11-16). Brisbane: Primrose Hall Publishing Group.
- \***Seemann, K.**, Newcombe, J., & Turner, A. (2012). The Green Growth Knowledge Economy: Implications for Technology and Design Teachers. In R. vanDerSwan (Ed.), *Current Trends in Technology and Society* (1st ed., Vol. 1, pp. 40-46). Brisbane: Primrose Hall Publishing Group.
- \*Kennedy, A., & **Seemann, K.** (2012). 'Plain English instead of hard words': English language encounters in a remote Aboriginal Community. In R. vanDerSwan (Ed.), *Current Trends in Technology and Society* (1st ed., Vol. 1, pp. 59-72). Brisbane: Primrose Hall Publishing Group.
- \*Turner, A., & **Seemann, K.** (2012). Food innovation and Technacy Genre Theory: strategies for teaching and learning. In R. vanDerSwan (Ed.), *Current Trends in Technology and Society* (1st ed., Vol. 1, pp. 104-114). Brisbane: Primrose Hall Publishing Group.
- \***Seemann, K.** (2009). Technacy Education: Understanding Cross-Cultural Technological Practice. In J. Fien, R. Maclean & M.-g. Park (Eds.), *Work, Learning and Sustainable Development: Opportunities and Challenges* (Vol. 8, pp. 117-131). Bonn: Springer. (G-Scholar, 14)

- **\*Seemann, K.** (2003) Book Chapter *Innovation Through Diversity: Beyond the Know-How to the Know-Why and Who-With in Cross-Cultural Technology Education*. Chapter in “Initiatives in Technology Education – Comparative Perspectives”, Technical Foundation of America, 4-8 January, Gold Coast, QLD, Australia. (G-Scholar, 2)

### **NTROs, (Peer reviewed - Non-Traditional Outputs)**

Present

- Keane, T. and **Seemann, K.** (2020) *Towards a thriving digital resource ecology with teachers*. Victorian Government in partnership with Swinburne University of Technology. Melbourne, Australia (67 pages)
- **Seemann, K.** (2018) Centre for Design Innovation: 2018 Biennial Research Report. Swinburne University of Technology, Melbourne. 84 pages, ISBN: 978-0-6480892-2-3.
- **Seemann, K.**, B. Kuys, N. Loutit, M. Lewis, J. Savage, N. Hedley, C. McCarthy, A. Tang, (2017) PARASITE DETECTION SYSTEM
- **Seemann, K. McLean, S. and Fiocco, P.** (2018) A gap to close: A literature review of waste management, health, and wellbeing in rural and remote Aboriginal and Torres Strait Islander communities. Swinburne University of Technology, and Waste Aid Australia Ltd. Melbourne. ISBN: 978-0-6480892-0-9.
- \*Waller, C., S. Taffe, **K. Seemann,** (2018) Visualising Community Experiences: Boroondara Customer Journey Mapping Co-design Research Project - Stage 3 Report
- \*Waller, C., S. Taffe, **K. Seemann,** (2018) Visualising Community Experiences: Boroondara Customer Journey Mapping Co-design Research Project – Customer Life Event Guides Report
- \*Waller, C., S. Taffe, **K. Seemann,** (2017) Visualising Community Experiences: Boroondara Customer Journey Mapping Co-design Research Project - Stage 1 Report
- \*Waller, C., S. Taffe, **K. Seemann,** (2017) Visualising Community Experiences: Boroondara Customer Journey Mapping Co-design Research Project - Stage 2 Report
- **Seemann, K.** (2016) Centre for Design Innovation: 2016 Inaugural Research Report. Swinburne University of Technology, Melbourne: 65 pages, ISBN: 978-0-646-96520-8.

### **Commissioned Research Reports**

- **Seemann, K.** (1988) *The Aboriginal Technical Worker Project: interim report*, in the National Conference on Science and Technology for Remote Communities, Murdoch University WA July. (25 pages)
- **\*Seemann, K.** and Fee, A (2003) *The Knowledge Economy. What it is, where it comes from and what it means to Technology Education in Australian schools, A*
- National Discussion Paper Commissioned by Quality Schools Branch, Department of Education Science and Training (DEST): Available at **NSW Department of Education and Training** via: <http://www.curriculumsupport.education.nsw.gov.au/primary/scitech/prolearn/refe>

### **Scholarly Journals**

Present

- \*Cerovac, M., Keane, T. and **Seemann, K.**, (2020 In print) Collaborative problem-solving in the engineering genre of the Technologies curriculum: A Pilot Study. *Design and Technology Education: an International Journal*.
- \*Williams, P.J., Ellis, D, Pagram, J, Macgregor, D., **Seemann, K.** & Fujita, S. (2019) A Critical Perspective on Technology Education in Australia. *Journal of the Japanese Society for Technology Education, Vol 61, No. 2. pp 75 - 92.*
- \*Marinova, D., Rooney, A., Webster, P., McRae, T., **Seemann, K.**, & Fiocco, P. (2019). Aboriginal employment opportunities in a low-carbon economy: Implications from a West Australian case study. *International Journal of Sustainable Society (IJSSOC)* –Submitted, under peer-review.
- \*Naccarella, L., Newton, C., Pert, A., **Seemann, K.**, Williams, R., Sellick, K., Dow, B., (2018) Workplace design for the Australian residential aged care workforce. *Australasian Journal on Ageing*. doi: [10.1111/ajag.12493](https://doi.org/10.1111/ajag.12493).
- \*Turner, A., & **Seemann, K.** (2011). The teaching of food technology in schools. *Food Australia: Official Journal of the Australian Institute of Food Science and Technology (AIFST Inc.)*, Volume 63 (11), pp.34-42. (Readers/Downloads, 4040; Scopus: 1)
- \* **Seemann, K.** (2010) "Introduction Desert Knowledge CRC Special Edition," *Journal of Economic and Social Policy*: Vol. 13: Issue no.2. 2, Article 1.(SW-DL: 240)
- \* **Seemann, K.**, Marinova, D. (2010) “Desert Settlements: Towards Understanding the ‘Mutuality of Influence’ and “Scale-free Networks” Concepts”, *Journal of Economic and Social Policy*, Vol. 13, Issue 2. (G-Scholar, 4; SW-DL: 839)
- \* Marinova, D., Lozeva, S., **Seemann, K.** (2010) “Community Conversations and Sustainability in the Desert: Leonora, Western Australia”, *Journal of Economic and Social Policy*, Vol. 13, Issue 2. (G-Scholar, 5; SW-DL: 996)
- \* Stafford Smith, D. M., Moran, M. and **Seemann, K.**, (2008) The community-settlement nexus - drivers of 'viability' in remote areas, *The Rangeland Journal*, 30. ISSN1036-9872. (G-Scholar 64; Scopus: 32)
- \* **Seemann, K.** (2007) Waking up the Subject: From Craft to Critical Technacy, *Curriculum Perspectives Journal*, Vol.27, No. 3. 2007. ISSN 0159-7868. (G-Scholar, 6)
- \***Seemann, K.** (2006) Preparing Learners for the Innovation Economy: It's time to rethink almost everything about technology education, *Design and Technology Education: An International Journal*, Vol.11 No.2 pp31-40. ISSN 1360-1431. (G-Scholar, 12; SW-DL: 621)
- \***Seemann, K.** (2003) Basic Principles in Holistic Technology Education. *Journal of Technology Education, USA*, Vol.14 No.2 pp28-39 (G-Scholar, 73; Scopus, 14)
- \***Seemann, K.** & Talbot, R. (1995) “Technacy: towards a holistic understanding of technology teaching and learning among Aboriginal Australians”. *Prospects*, vol XXV, no 4, Dec. (G-Scholar, 30; Scopus, 11)
- \***Seemann, K.** (1993) “Aboriginal Technical Vocational Education: Strategic Program Development in Support of Community Technical Functions and Local Empowerment”, *Journal of the Design in Education Conference Australia DECA*, Winter 1993.
- \*Walker, B and **Seemann, K.** (1989) "Technology and Development In Remote Aboriginal Communities - Technical Training for the Future." *NSW Journal of Industrial Arts Education*, Sept. (17 pages)

## Scholarly Full-Length Conference Papers, (Double blind Internally peer reviewed ISBN Published Conference Research Papers)

Present

- Nayak, J., Keane, T., **Seemann, K.\*** (2020) *Developing Computational Thinking in Children (Years 3 to 12) Through Programming using the Technacy Theory*, Proceedings of the Open Conference on Computers in Education (OCCE) 2020 at TISS, Mumbai, India. 6-8th Jan 2020. [Paper selected for submission into OCCE 2020 Book chapter].
- **\*Seemann, K.,** Cerovac, M., Keane, T. (2019) *Understanding spatial inferential reasoning skills for Design Led STEM education,-* Proceedings of the Technology Education New Zealand Conference, 1-3 October 2019, Albany Senior High School, Albany, NZ. URL: <https://tenz.org.nz/2019-conference/#info>.
- **\*Seemann, K.** (2019) Towards a housing for livelihood policy framework in remote Aboriginal communities, Proceedings of the *2019 National Housing Conference: Housing future communities*, 27-30 Aug. 2019, Darwin Convention Centre, Convened by AHURI, in partnership with the Northern Territory Government, Darwin, Northern Territory, Australia.
- **\*Seemann, K.** (2019) The service network topology of remote desert settlements: can service-hub towns survive if their small and remote satellite communities all closed?, Proceedings of the *2019 National Housing Conference: Housing future communities*, 27-30 Aug. 2019, Darwin Convention Centre, Convened by AHURI, in partnership with the Northern Territory Government, Darwin, Northern Territory, Australia.
- **\*Seemann, K.** (2018) Applied Design Led Innovation: Why D&T is the only subject that can deliver. Keynote Paper. *Proceedings of the 10th Biennial International Design and Technology Teachers Association Research Conference*, Swinburne University of Technology. 5-8th Dec.2018, Hawthorn, Victoria, Australia.
- **\*Hill, E. W., Keane, T., & Seemann, K.** (2018) Pedagogies and practices for developing innovation capability: Beyond the AITSL standards, *Proceedings of the 10th Biennial International Design and Technology Teachers Association Research Conference*, Swinburne University of Technology. 5-8th Dec.2018, Hawthorn, Victoria, Australia.
- **\*Cerovac, M., Keane, T., & Seemann, K.** (2018) Systems Engineering: Identification and fostering of inferential and social skills, *Proceedings of the 10th Biennial International Design and Technology Teachers Association Research Conference*, Swinburne University of Technology. 5-8th Dec.2018, Hawthorn, Victoria, Australia.
- **\*Seemann, K.** (2011). Weaving Virtual Service Networks into Regional Cities: 'nurture the body here and offer the mind anywhere' - anecdotes from the Coffs Harbour community forums to minimize carbon usage and maximise regional innovation. In F. Chan, D. Marinova, & R. S. Andersen (Eds.), *MODSIM2011, 19th International Congress on Modelling and Simulation* (Vol. December 2011, pp. 3080-3084). Perth Convention and Exhibition Centre in Perth: Modelling and Simulation Society of Australia and New Zealand. Retrieved from <http://www.mssanz.org.au/modsim2011/H2/seemann.pdf>
- **\*Turner, A., & Seemann, K.** (2011). 'Clarifying food innovation education for the global green new deal'. *Food Studies: An Interdisciplinary Conference 09/12/11-10/12/11*. University of Nevada Las Vegas, Las Vegas NV, USA.

- \*Turner, A., & **Seemann, K.** (2010). *The teaching of Food Technology in schools*. Paper presented at the 43rd Annual Australian Institute Food Science and Technology Convention, 'Creating the Future of Food', 25-29 July, held at the Sebel, Albert Park, Melbourne, Australia. (G-Scholar, 3; ; SW-DL: 4041)
- \* **Seemann, K.** (2010). *Learning How Everything Is Connected: Research in Holistic and Cross-Cultural Indigenous Technacy Education*. Invited Paper presented at the *International Conference of Research in Technological Learning & Thinking*, University of British Columbia, Vancouver, Canada. 17–21/06/2010, Retrieved from <http://learningcommons.net/> (G-Scholar, 7)
- \* Elshof, L., Keirl, S., McLaren, S., and **Seemann, K.** (2010). (Re)visioning Technological Learning and Thinking – the Clifftop Manifesto for educational change. Paper presented at the *International Conference of Research in Technological Learning & Thinking*, University of British Columbia, Vancouver, Canada. 17–21/06/2010, Retrieved from <http://learningcommons.net/> (G-Scholar, 2)
- \*Turner, A and **Seemann, K.** (2010). Clarifying Sustainable Food Technology Futures through Technacy Genre Theory. Paper presented at the *International Conference of Research in Technological Learning & Thinking*, University of British Columbia, Vancouver, Canada. 17–21/06/2010, Retrieved from <http://learningcommons.net/> (G-Scholar, 5; SW-DL: 839)
- \* **Seemann, K.**, and Marinova, D. (2009) Understanding Connectivity of Settlements: Implications of the Power Curve, *MODSIM 2009 International Congress on Modelling and Simulation*, Modelling and Simulation Society of Australia and New Zealand, Cairns, Australia, pp. 1209–1174, ERA (C Conf) (G-Scholar, 2)
- \*Turner, A, & **Seemann K.** (2008) The Silent Death of Food Technology Rigor in School Curriculum, in *Exploring Technology Education: Solutions to issues in a Globalised World*, Proceeding of the 5th International Technology Education Research Centre (TERC), Griffith University, Gold Coast 27-29th Nov 2008. (SW-DL: 890)
- \* Newcombe J,& **Seemann K** (2008) Skilling Out Technological Intelligence and the Skills-Climate Paradox, in *Exploring Technology Education: Solutions to issues in a Globalised World*, Proceeding of the 5th International Technology Education Research Centre (TERC), Griffith University, Gold Coast 27-29th Nov 2008
- \* **Seemann, K.** (2008). Desert Knowledge CRC: Overview and emerging insights. *Territory Fair: How do we get there?* Proceedings of The NT Council of Social Service Conference. Darwin Entertainment Centre, 16-18th April.
- \* **Seemann, K.** (2008). Dimensions of Australia's Desert Settlements: The Challenge of Sustainable Towns. Proceedings of the *Desert Knowledge Symposium 2008 - Developing Desert Directions: Rethinking the Future*. 3-6 November.
- \* **Seemann, K.** (2008). "The Alice Springs Declaration" - Desert Inspiration Connecting Teachers in the Mainstream. Proceedings of the *Desert Knowledge Symposium 2008 - Developing Desert Directions: Rethinking the Future*. 3-6 November.
- \* **Seemann, K.** (2006). Housing for Sustainable Livelihoods: the role of schooling. Proceedings of the *Sustainability of Indigenous Communities Conference*. 12-14 July.

- \* **Seemann, K.** (2006) *The Role Values Plays in Forging Skill and Task Performance: Case Studies in Cross-Cultural And Innovation Education.* Conference Proceedings of the “*Values in Technology Education.*” 4th Biennial International Conference on Technology Education, Centre for Learning Research, Griffith University, 6-9 December. Crowne Plaza, Surfers Paradise, Gold Coast, Queensland, Australia (G-Scholar, I)
- \*Turner, A. & **Seemann, K.** (2006) *It’s time to study values at the core of Food Technology Education.* Conference Proceedings of the “*Values in Technology Education.*” 4th Biennial International Conference on Technology Education, Centre for Learning Research, Griffith University, 6-9 December. Crowne Plaza, Surfers Paradise, Gold Coast, Queensland, Australia. (SW-DL: 675)
- \*Parnell, M. and **Seemann, K** (2005) *Developing Lifecycle Models for Sustainable Investment in Desert Communities,* Published conference proceedings: *Building For Diversity National Housing Conference 2005,* Perth Convention Centre, Western Australia: pp337-347.
- \***Seemann, K.** (2004) *Australia’s Innovation Agenda for Technology Teachers.* Conference Proceedings of the “*Learning for Innovation in Technology Education.*” 3rd Biennial International Conference on Technology Education, Centre for Learning Research, Griffith University, 9-11 December. Crowne Plaza, Surfers Paradise, Gold Coast, Queensland, Australia. Vol: 3, pp. 92-100. (G-Scholar, 9; SW-DL: 618)
- \***Seemann, K.** (2004) *Capacity for Abstraction and the Applied Technology Learner.* Conference Proceedings of the “*Learning for Innovation in Technology Education.*” 3rd Biennial International Conference on Technology Education, Centre for Learning Research, Griffith University, 9-11 December. Crowne Plaza, Surfers Paradise, Gold Coast, Queensland, Australia. Vol: 3, pp. 101-106. (G-Scholar, 4; SW-DL: 522)
- \*Turner, A. & **Seemann, K.** (2004) *Innovation Education in NSW Design and Technology Curriculum.* Conference Proceedings of the “*Learning for Innovation in Technology Education.*” 3rd Biennial International Conference on Technology Education, Centre for Learning Research, Griffith University, 9-11 December. Crowne Plaza, Surfers Paradise, Gold Coast, Queensland, Australia. Vol: 3, pp. 147-155.(SW-DL: 1651)
- \***Seemann, K.** (2002) *Constructivist Verses Behaviourist Approaches in Design Computing Education: Implications for the Innovation Economy-* . Proceedings of the 2nd Biennial International Conference on Technology Education 5-7 December. Park Royal Surfers Paradise, Gold Coast, Queensland, Australia. (G-Scholar, 2)
- \***Seemann, K.** (2002) *Holistic Technology Education.* Proceedings of the 2nd Biennial International Conference on Technology Education 5-7 December 2002. Park Royal Surfers Paradise, Gold Coast, Queensland, Australia.
- \***Seemann, K.,** Swan, E., Kennedy, P., Babbage, & P., O’Connor, S. (2000) *Exploring Alternate Technology Teacher Education Models: Some Preliminary Findings.* Proceedings of the 1st Biennial International Conference on Technology Education, Surface Paradise, 7-9 December. (G-Scholar, 3; SW-DL: 395)
- \***Seemann, K.** (2000) *Can Our Schools Deliver An Education In Technology?* Proceedings of the 1st Biennial International Conference on Technology Education, Surface Paradise, 7-9 December. (G-Scholar, 4; SW-DL: 425)

- **\*Seemann, K.** (2000) *Technacy Education: Towards Holistic Pedagogy and Epistemology in General and Indigenous/Cross-Cultural Technology Education*. Proceedings of the 1st Biennial International Conference on Technology Education, Surface Paradise, 7-9 December. (G-Scholar, 19; ; SW-DL: 1982)
- **\*Seemann, K.** (1998) "Transport Access and Equity for low Income Groups: the impact of housing policy proposals", 20th Conference of Australian Institutes for Transport Research, Sydney University (9 pages)
- **\*Seemann, K.** (1990) *Waste Management in Remote Aboriginal Communities*, 14th Regional UNESCO Seminar on Technology for Community Development, Alice Springs, NT JULY
- **\*Seemann, K.** (1990) *Introduction to Technacy: Concepts and Curriculum in Remote Aboriginal Communities*, 14th Regional UNESCO Seminar on Technology for Community Development, Alice Springs, NT JULY
- **\*Seemann, K.** (1990) *Introduction to Technacy: Concepts, Curriculum and the Technology Message Experienced in Aboriginal Communities*. First National Science and Technology Communicators Conference, National Science and Technology Centre (QUESTACON) ACT August.
- Walker, B & **Seemann, K.** (1989) "*Technology and Development In Remote Aboriginal Communities - Technical Training for the Future.*" World Engineering Conference, Australia, Sydney.
- **\*Seemann, K.** (1987) ATWORK: Features of Similar Programs Overseas, published in the Aboriginal Technical Worker Feasibility Study Report 1989/90, Centre for Appropriate Technology, Alice Springs, NT (18 pages)
- Other (Invited papers unpublished, and published foreword)
- **Seemann K.** (2009). "Understanding the Sustainability of Desert Settlements: From gender issues of socio-technical systems to the implications of the power curve with connected towns". Paper presented to the *Curtin University Sustainability Policy Unit - Symposium*. Curtin University, 2nd April, Fremantle.

#### **Unpublished Thesis by Research Dissertations**

- **\*Seemann, K.** (1997) "*The Socio-Technical Sustainability of Shelter Systems and Hardware in Remote Indigenous Australian Communities*"- , Ph.D. Thesis, Faculty of Built Environment, School of Architecture, UNSW, Australia (290pages, +30 pages appendices). (G-Scholar, 12)
  - **\*Seemann, K.** (1986). "*An Argument for Industrial Arts in Education. An alternative to the Current Manual Arts Model*", Education Honours Thesis in Marxist Philosophy of Education, University of NSW. (76 pages) (G-Scholar, 4)
  - **\*Seemann, K.** (1986) "Appropriate Technology in Iriri: A Micro hydroelectric Project in Iriri" Major Project Dissertation for BSc, University of NSW. (122 pages) (G-Scholar, 5)
-