

CELEBRATING APPLIED RESEARCH IN TAFE

PROGRAM

Wednesday 26 October 2016
Holmesglen Conference Centre



Victorian TAFE
Association



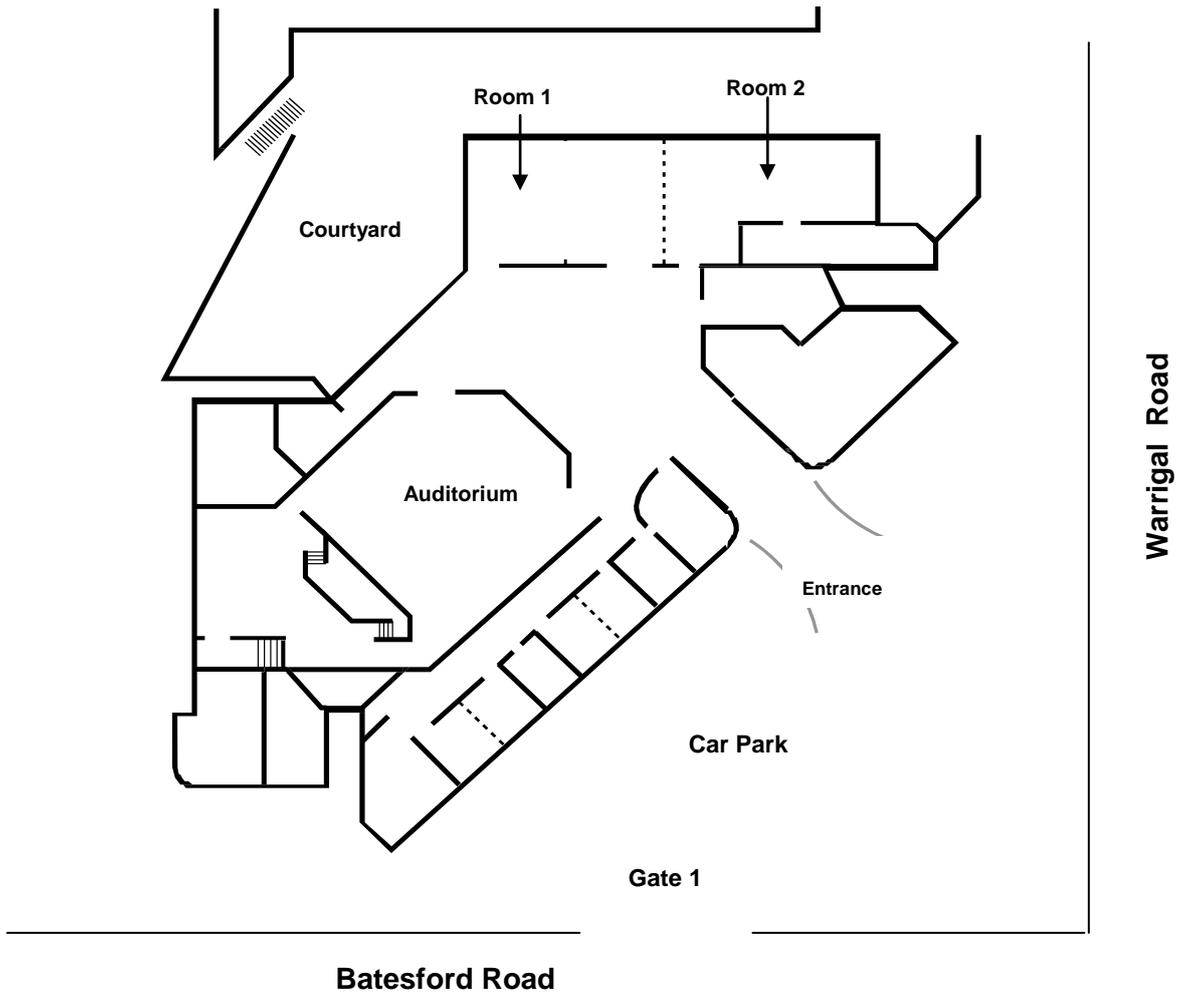
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Holmesglen Conference Centre

Cnr Warrigal and Batesford Road, Chadstone

Parking

Limited parking is available in the car park in front of the Conference Centre. Parking is also available in the Student car park via Gate 3, Batesford Road at a cost of \$4.00 per day.





Celebrating Applied Research in TAFE

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Program

- 9.45 – 10.15 Registration
- 10.15 -10.30 Welcome, Andrew Williamson, VTA

Speakers

- 10.30 - 11.15 Centre for Applied Research and Innovation
Mary Faraone, Chief Executive
- 11.20 – 11.40 Curriculum, Simulation and Assessment Bridging program for the Diploma of Community Services: A pilot study,
Karen Hall, Melbourne Polytechnic
- 11.45 – 12.05 Improving the quality, capability and status of the VET teacher workforce
Claire Rasmussen, Federation University
- 12.10 – 12.30 How Geelong is Skilling for Composite Materials
Ian Thomas, The Gordon

12.30 - 1.10 Lunch

- 1.10 – 1.30 GOTAFE Boatbuilding
Brett Ambrosio, Goulburn Ovens Institute of TAFE
- 1.35 – 1.55 South East Water Project
Dominic Hibbert, Holmesglen Institute
- 2.00 – 2.20 What is this thing called Scholarship? The journey towards an academic culture in a traditional TAFE environment
Justine Rofe, Wodonga Institute of TAFE
- 2.25 – 2.50 Leading through international practitioner applied research fellowships
Louisa Ellum, International Specialised Skills Institute
- 2.50 – 3.00 Wrap up and close, Andrew Williamson, VTA

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Centre for Applied Research and Innovation

10.30am – 11.15am

Speaker **Mary Faraone, Chief Executive, Holmesglen Institute**

Presentation Synopsis

At a time when there is great emphasis on applied research and the need to develop an innovation focus in education and training, Holmesglen Institute is proud to announce the launch of its newly created Centre for Applied Research and Innovation.

Drawing on its success as a provider of industry focussed VET and Higher Education programmes, Holmesglen recognises the importance of applied research and innovation as a complement to its teaching profile and as an important driver of industry and community relationships.

The Centre for Applied Research and Innovation will build upon Holmesglen's already impressive record in the field of applied research and innovation of many and varied industry and community focussed projects that include the development of new products for the building industry such as the development of 'pre-fabricated timber flooring'; a co-operative venture between Holmesglen and South East Water in the development of heating processes for harvested water for use in domestic dwellings; a project involving the student as researcher in the application of DNA Barcoding technology to identify and record species in rural Victoria; and the development of a partnership between Holmesglen and Healthscope in the provision of health services and health services training in Melbourne's southeast.

The success of Holmesglen research will be further enhanced as the centre develops and implements its framework to guide staff and students in their research endeavours. This includes services to support the full range of applied research activity ranging from strategy, partnerships and stakeholder relationships, to research ethics and integrity and the sourcing of funding for current and proposed projects. Specifically, the Centre will formulate guidelines for the development of research capability among Holmesglen researchers to assist in the identification of research opportunities for both vocational and higher education, support its faculties in the building and strengthening of alliances and industry partnerships, and promote innovation through knowledge exchange and technology transfer with industry and community. It will place a special value on the application of research results to Holmesglen's teaching programmes and to the enhancement of student learning.

Curriculum, Simulation and Assessment Bridging Program for the Diploma of Community Services: A pilot study

11.20am – 11.40am

Speaker **Karen Hall, Melbourne Polytechnic**

Karen Hall RN RPN, MEntl Hlth,Dip VET,TAE is an Academic Developer in the Centre for Learning and Teaching at Melbourne Polytechnic.. She is also employed as an academic lecturer at ACU in the Bachelor of Nursing. Clinically she has over 25 years' experience in Mental Health Nursing and is currently employed by Eastern Health in CATT and Mental Health Triage. Research interests include simulation-based education and debrief, simulation as a viable alternative to clinical placement and the development of reflective practice, critical thinking and clinical reasoning in undergraduate nursing students

Presentation Synopsis

This pilot program was developed in response to the increased requirements for delivery and assessment in the Community Services Training packages. Due to the increased requirement, plus the shortage of high quality placements, it was considered that an alternative method of learning and assessment delivery was necessary to add to the student experience, compliment placement and meet the training package requirements. Simulation based learning was the method that we chose.

Improving the quality, capability and status of the VET teacher workforce

11.45am – 12.05 noon

Speaker **Claire Rasmussen, Federation University**

Claire Rasmussen currently holds the position of the Director of VET Practice at Federation University Australia (FedUni TAFE) where she is responsible for providing the strategic direction of VET delivery and leading quality learning and teaching outcomes. She is also responsible for ensuring that through professional development, the unique and complex characteristics of VET teachers are maintained and enhanced to meet the demands of a complex education and training environment.

Claire is committed to driving cultural change through positive, creative and solution driven educational leadership in a rapidly changing and complex environment.

Presentation Synopsis

In 2015, Claire Rasmussen received an International Specialised Skills Institute Fellowship to research international examples of:

1. Vocational Education and Training (VET) teacher qualifications
2. Professional teaching standards and/or registration
3. Professional Development - maintaining teaching and vocational currency. Examples of how teachers maintain teaching and vocational currency and competency through continuous professional learning.
4. The impact of the broader VET system on quality teaching.

The research looked at models of leadership in teacher training, professional development and practice in countries across Europe to compare and contrast with those in Australia. This research aims to inform how we can improve the quality of VET teaching at a national and registered training organisation (RTO) level.

The improvement of quality delivery and training, learning outcomes for students and ongoing workforce capability are important topics for the Australian VET sector to address. They are also topics that are not necessarily being addressed with a national strategy in mind as there are different state-based approaches and these are tied into regulatory requirements at both Commonwealth and State level.

It is anticipated that the outcomes of this Fellowship will contribute to an improved quality VET workforce and – subsequently – student outcomes, as the quality of the teacher and learner outcomes are directly linked.

Claire visited the UK, Switzerland and Germany (specifically Konstanz) to examine a variety of VET/Education environments that reflect, embed and document scholarly practice and standards for teacher qualifications and present a sound argument that a strong model of educational leadership can change culture leading to improved student outcomes. Through this research, Claire has been able to identify a range of recommendations and observations that are applicable for government, education and training providers, industry, amongst others.

How Geelong is Skilling for Composite Materials

12.10pm – 12.30pm

Speaker **Ian Thomas, The Gordon**

Ian Thomas has been a trainer and assessor in the AM Tech Program at The Gordon since 2011. He provides training and instruction to Engineering students, and has been involved in the redevelopment of several courses at The Gordon, including the Diploma of Engineering and the new Course in the Use of Carbon Fibre in Composite Manufacturing. Ian has also taught at Federation University. Prior to his work in the VET sector Ian had over 37 years' experience in working in the engineering and composites industries, much of that on projects within CSIRO.

Presentation Synopsis

Carbon fibre has been emerging as a future advanced manufacturing opportunity in Geelong since 2013 when Deakin University's Carbon Nexus research production facility commenced operations. The Gordon has worked closely with Carbon Nexus and other key industry stakeholders since that point to develop training resources and experiences for production operators. This work with industry has now culminated in the development of a new program for production personnel involved in using carbon fibre in composite manufacturing processes. The need for Geelong to have new advanced manufacturing opportunities has become acute with the closure of the Alcoa Australia's aluminium refinery in 2015, and the Ford Motor Company's manufacturing impending closure on 7 October 2016. These closures have also impacted heavily on up and downstream manufacturing companies supporting these industries.

The Gordon in partnership with Skilling the Bay, an industry-based initiative to address economic and industry change in Geelong, consulted extensively with a wide range of production companies using carbon fibre. These included companies in the automotive, aerospace, marine and general manufacturing sectors. Through a series of workshops and meetings a Stakeholder Reference Group was established which provided oversight to the development of a new Victorian State Registered Course 22312VIC Course in the Use of Carbon Fibre in Composite Manufacturing. The new course has three core units covering principles of use, polymer matrix chemistry, principles of application in the use of carbon fibre. An elective unit on optimising carbon fibre composite processing applications was also developed with the scope to bring other electives in from manufacturing qualifications where these were more appropriate.

Through further meetings and industry visits The Gordon's AM Tech team has been able to build a new 12 week program that takes participants through key core units of competency that enable them to understand the properties of carbon fibre, work with it safely, and apply it to a range of manufacturing contexts. A pilot of the program commenced in mid-2016 with 12 participants, with many of them from participating stakeholder organisations as well as displaced Ford manufacturing workers.

This presentation provides an overview of the activities, processes and learnings leading to the development of the new carbon fibre composites course, and the implementation of the project up to this point.

GO TAFE Boat Building

1.10pm – 1.30pm

Speaker **Brett Ambrosio, Goulburn Ovens Institute of TAFE**

Brett Ambrosio is currently the Commercial Manager of Automotive and Engineering, and also Acting Executive Manager, Technology Industries at Goulburn Ovens TAFE. He has been employed by GOTAFE for 12 years, the first 6 years as an automotive teacher before applying and being offered the position as Commercial Manager for Automotive & Engineering.

He is very passionate about education and developing a strategic direction that will enhance learning as well as having a focus aimed at developing links within, and external to, the TAFE community.

Business development has been a very big part of his role - when first starting out as commercial manager he was responsible for approximately 15 qualifications and now currently manages 34 qualifications across Victoria and interstate. This growth has come from a lot of market research, building networks within the wider community, and sourcing and developing future training needs.

Presentation Synopsis

In Victoria, boat manufacturing and maintenance is a niche industry serving domestic and international customers. Boat builders design and build an array of vessels from the weekend fisherman's dinghy to harbour pilot boats and sophisticated ocean-going yachts.

GOTAFE has acted as an innovation diffusion node, bringing innovation to Victoria's boatbuilding industry through training that introduces new materials and technology. The key actor in diffusion is a trainer, Phil Bovis, who has front running expertise in technology and materials which he embeds in training for apprentices. Hands-on apprenticeship training in enterprise workshops brings enterprise owners into direct contact with leading edge boatbuilding practice.

GOTAFE is the only VET provider in Victoria with the Certificate III in Marine Craft Construction on scope. There are now 28 boatbuilding enterprises employing 42 apprentices who are enrolled at GOTAFE, up from nine apprentices in 2013. Given the importance of composites in boatbuilding, in 2015 GOTAFE added the Certificate III in Engineering – Composites Trade to its scope.

It's a thin market but the quality and industry relevance of GOTAFE's training has prompted growth. That's important for an industry primarily comprised of geographically dispersed small enterprises with ageing workforces.

Introduced SMEs to innovation through apprenticeship training

Composites, one of the main boatbuilding materials, have changed dramatically in just a few years. Older composites require application of as many as ten layers, and the resins used must harden before adding new layers. It takes time, particularly when the resin is left to harden in ambient air. Introducing new composites means fewer layers that are stronger and produce an increased variety of finishes. The new composites are less costly to use. GOTAFE's apprentices learn to use new composites, and that learning is the route by which they are introduced to many small boatbuilding enterprises.

Training for boatbuilding apprentices has also served as the route for introducing many boatbuilding enterprises to closed moulding technology. Closed moulding of composites is now in commonplace use by international competitors. It consists of a range of processes and materials that reduce time, waste and environmental emissions. For example, resin infusion technology substantially reduces void and laminate defects in finished laminates.

Composites are becoming more widespread across many industry sectors, including advanced manufacturing. There is a continuing need to update skills and knowledge of composite materials and processes as they progressively replace traditional materials. Apprentices learning how to use these innovative materials and processes become aware of how their skills can transfer to other industry sectors using composites.

Staying competitive by skilling the boatbuilding workforce

These innovations are not new to the world, but they are new to Victoria's boatbuilding enterprises picking them up in their workshops as an outstanding by-product of high quality apprenticeship training. They are innovations that bring local industry into step with global best practice, improving competitiveness, reducing costs and increasing product options. GOTAFE staff are continually undertaking PD and attending forums to help with the ongoing changes to the cutting edge industry.

GOTAFE has recently commenced offering boatbuilding skillsets and units of competency at Certificate IV level as a response to demand from SMEs. Business owners have seen firsthand how industry leading apprenticeship training improves their products and work processes. This has encouraged them to boost workforce skills that will prompt innovation, leading to product and productivity improvements. Employees enrolling in Certificate IV training options range from those with a few years in the industry to people who have worked in boatbuilding for decades.

South East Water Project

1.35pm – 1.55pm

Speaker **Dominic Hibbert, Holmesglen Institute of TAFE**

Dominic Hibbert is Head of Department, Plumbing and Construction Finishing and is responsible for Plumbing, Painting and Decorating and Roof Tiling teaching areas. Prior to his current role Dominic was a Plumbing teacher for 12 years teaching across Certificate II, Certificate III and License level Certificate IV in Plumbing.

As Holmesglen's representative on the Plumbing Training Moderation Group of Australia, Dominic was involved with curriculum development and moderation as well as the design and implementation of educational workstations for both training and assessment in trade teaching.

Before joining Holmesglen in that role he operated his own plumbing business delivering services in all streams of plumbing to commercial, domestic and government construction projects.

Presentation Synopsis

The Holmesglen Plumbing Department was approached by South East Water in late 2015 with a request for assistance with testing and reviewing a new process for reclaimed heated water.

The project required the construction of a test rig with input and assistance by the Plumbing Department staff. Installation and testing of new valves and pump systems connected to a simulated 2 storey domestic home to test the performance and operation of integrated systems to be electronically monitored and recorded. Issues around public health regarding the filtering and heating of water require careful consideration and testing. The project was identified as a candidate for applied research and a Faculty wide approach was developed with implications for town planning, building surveying, building design and architecture.

We've done it before....

The Plumbing Department has been asked by industry partners and government regulators in the past for assistance and we have completed many successful projects but we have never called it applied research. Now we can see opportunities for other projects and can now market the advantages of Holmesglen's Centre for Applied Research and Innovation to our other industry partners.

What is this thing called Scholarship? The journey towards an academic culture in a traditional TAFE environment

2.00pm – 2.20pm

Speaker **Justine Rofe, Wodonga Institute of TAFE**

Justine is a passionate educator, having worked as a VET teacher in both NSW and Victorian TAFEs for 7 years. Justine then turned her skills towards business development, before taking up the challenge to manage Wodonga TAFE's first foray into higher education. Justine currently thrives in managing all aspects of the TAFE's university partnerships, projects, pathways and higher education delivery. Justine is well qualified and holds both VET and higher education teaching qualifications, as well as a bachelor in marketing management. Justine's current enrolment in the Masters of Education by Research has fuelled her love of learning and the belief that scholarly activity has a place in the VET sector. Recently, Justine has been awarded one of the 14 issued VDC Academic Grants to support high quality teachers.

Presentation Synopsis

Scholarly practices and indeed models of scholarship in Australian TAFE's are a new phenomena, and are largely a direct result of the demand driven environment and the application for Non University Higher Education Provider (NUHEP) status by non-university institutions. In 2012, Wodonga TAFE commenced delivery of the Bachelor of Applied Management under a partnership arrangement with Federation University Australia, thus joining the ranks of many other Australian VET providers in offering higher education programs in a VET setting. Like other institutions, the decision to partner with universities rather than seeking NUHEP registration is integral in the overall strategic direction of Wodonga TAFE. However, such partnerships, of which there are now three, places the TAFE in new territory.

The literature asserts the importance of the research-teaching nexus, and while universities have held time-honoured traditions and established models of scholarship and research, VET providers have no such traditions and expectations. Accordingly, attention has traditionally been, and continues to focus on VET trainers and assessors possessing the required vocational competencies, currency of industry skills, and the knowledge and skills in vocational pedagogical practices. However, change is in the air!

VET teachers engage in all manner of activities every day, many of which are scholarly in nature. But what are these activities and what are the forces that drive the activity? Using Boyer's four pillars of scholarship, Justine will discuss her focus on the identification of current teacher practices that are scholarly in nature. By viewing teacher practice through a new 'scholarly' lens, Justine will use the findings to develop a model of scholarship that meets the needs of Wodonga TAFE.

Leading through international practitioner applied research fellowships

2.25pm – 2.50pm

Speaker **Louisa Ellum, International Specialised Skills Institute**

Louisa Ellum is the CEO of the International Specialised Skills Institute (ISS Institute), an organisation founded over 25 years ago by Sir James Gobbo, former Governor of Victoria. She has worked extensively across the education, not-for-profit and philanthropic sectors over the past 20 years. She is a leader and driver of governance and organisational change holding current Board level positions as Chair of the Youth Affairs Council of Victoria (YACVic) and government appointed member of the Adult Community and Further Education SMR Regional Council. Louisa is currently also a PhD candidate undertaking her studies at The Victoria Institute, Victoria University.

Presentation Synopsis

This presentation explores the personal, professional and VET sector opportunities of international Fellowships through the ISS Institute's Fellows' own journeys and learning. It focuses on the ways practitioners and VET organisations can harness collaboration opportunities through thought leadership practice and sharing outcomes that benefit the greater sector good.
