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UNIVERSITY OF  
TECHNOLOGY SYDNEY

STUDENT SERVICES UNIT AND UNIVERSITY GRADUATE SCHOOL

UTS:

# PROGRAM

# 9TH ANNUAL CROSSDISCIPLINARY POSTGRADUATE STUDENT CONFERENCE

17 August 2007

City Campus, Building 10,  
Level 6, Training Rooms 1 & 2

*Welcome to the Ninth Annual Postgraduate Research Students' Conference 2007*

*The Conference is a joint venture between the University Graduate School and Student Services and is the only multidisciplinary conference at UTS. Student Services and the University Graduate School work throughout the year to develop a strong and cohesive postgraduate research student community and we are pleased to be able to provide a space for postgraduate students to support and engage with each other in interdisciplinary pedagogies, where Masters and Doctoral students can demonstrate their work in progress to UTS community members.*

*This Conference provides UTS staff and students with an opportunity to learn about some of the innovative research conducted by students, and for students to engage in discussion about research amongst their peers. This Conference caters to the needs of all students, particularly those in the early stages of research and is a wonderful opportunity to help students develop their presentation skills in a non-threatening and supportive environment. The day is important to postgraduate students as it often opens doors to further opportunities for them to present at conferences with a more competitive base.*

*The Conference has developed greatly since its inception in 1999. We hope you enjoy today's proceedings.*

**Conference Committee**

<i>Melissa Herdy</i>	<i>Student Services</i>
<i>Maree Jouliau</i>	<i>University Graduate School</i>
<i>Sarah Lok</i>	<i>Student Services</i>
<i>Nutan Muckfe</i>	<i>University Graduate School</i>
<i>Fiona Zhu</i>	<i>University Graduate School</i>

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**9<sup>th</sup> Annual University Graduate School/Student Services  
Postgraduate Research Students' Conference**

8.30 – 9.00	<b>Registration &amp; Coffee</b>	
	<i>Training Room 1</i>	<i>Training Room 2</i>
<b>9.00 – 9.30</b>	<b>Keynote Addresses</b> Professor David Boud Professor Cynthia Mitchell	
<b>Session 1</b>		
9.30 – 9.50	<i>Mohammad Ashraf Khan</i> <i>Faculty of Design, Architecture &amp; Building</i> Propagation of Indigenous Architecture <b>Feedback and Chair:</b> Dr Katrina Schlunke	<i>Hooman Homayoonfard</i> <i>Faculty of Information Technology</i> A new physical modelling for multi-phase hierarchical data clustering on heterogeneous datasets <b>Feedback and Chair:</b> Professor David Boud
9.50 – 10.10	<i>Kerry Little</i> <i>Faculty of Humanities &amp; Social Sciences</i> Stories of the Lepshas – starving for their culture <b>Feedback and Chair:</b> Dr Katrina Schlunke	<i>Sue Osmond</i> <i>Faculty of Design, Architecture &amp; Building</i> Cleo's Clothes – post modern interpretations of feminine power in Shakespeare's Antony and Cleopatra <b>Feedback and Chair:</b> Professor David Boud
10.10 – 10.30	<i>James Flowers</i> <i>Institute for International Studies</i> Chinese Medicine is becoming increasingly a world wide phenomenon <b>Feedback and Chair:</b> Dr Katrina Schlunke	<i>Michael Kerans</i> <i>Faculty of Design, Architecture &amp; Building</i> Bridging the rental gap of affordable rental housing: is there a viable model? <b>Feedback and Chair:</b> Professor David Boud
10.30 – 10.50	<i>Jane Bullen</i> <i>Faculty of Humanities &amp; Social Sciences</i> Homelessness: from social problem to individual problem <b>Feedback and Chair:</b> Dr Katrina Schlunke	<i>Rosalind Carter</i> <i>Faculty of Education</i> The role of the supervisor in facilitating learning at work <b>Feedback and Chair:</b> Professor Tony Moon
10.50 – 11.10	<b>Morning Tea</b>	
<b>Session 2</b>		
11.10 – 11.30	<i>Robert Pastorelli</i> <i>Faculty of Humanities &amp; Social Sciences</i> Foucault: Values, Power and Ethics <b>Feedback and Chair:</b> Professor Tony Moon	<i>Dick Audley</i> <i>Faculty of Education</i> Investigating perceptions of course approval procedure across Australian higher education <b>Feedback and Chair:</b> A/Professor Roger Morris
11.30 – 11.50	<i>Nihaya Al-Sheyab</i> <i>Faculty of Nursing, Midwifery &amp; Health</i> Peer-led asthma education in Jordanian high schools <b>Feedback and Chair:</b> Professor Tony Moon	<i>Atef Abuhmaid</i> <i>Faculty of Education</i> To identify constraints for Information and Communication Technologies (ICT) integration in the Jordanian educational system <b>Feedback and Chair:</b> A/Professor Roger Morris
11.50 – 12.10	<i>David Bond</i> <i>Faculty of Business</i> The value of the merger of Ernst & Young and Arthur Anderson in Australia <b>Feedback and Chair:</b> Professor Tony Moon	<i>Edwina Hine</i> <i>Faculty of Science</i> The efficacy of immunoaffinity purification of hCG from doping samples <b>Feedback and Chair:</b> A/Professor Roger Morris
12.10 – 12.30	<i>Katharine Grimwood</i> <i>Faculty of Science</i> Investigation into the role PU plays in pre and post flame fire scenario <b>Feedback and Chair:</b> Professor Tony Moon	<i>Srivalli Vilapakkam Nagarajan</i> <i>Faculty of Education</i> Theory of the relationship between non-technical work experiences of IT graduates and their University studies <b>Feedback and Chair:</b> A/Professor Roger Morris
12.30 – 1.30	<b>Lunch</b>	

**9<sup>th</sup> Annual University Graduate School/Student Services  
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	Room 1	Room 2
<b>Session 3</b>		
1.30 – 1.50	<i>Zafar Mehboob</i> <i>Faculty of Information Technology</i> Change Impact Analysis (CIA) in Web systems <b>Feedback and Chair:</b> Ms Eva Cox	<i>Thea Marie Brolund</i> <i>Faculty of Science</i> Damselish metabolic adaptation to changes in temperature <b>Feedback and Chair:</b> Professor John Rice
1.50 – 2.10	<i>Zoe Sadokierski</i> <i>Faculty of Design, Architecture &amp; Building</i> Lost in Translation: describing the function of typo/graphic devices in prose-fiction <b>Feedback and Chair:</b> Ms Eva Cox	<i>Marion Burford</i> <i>Faculty of Education</i> Perceptions and experiences of care amongst higher education students <b>Feedback and Chair:</b> Professor John Rice
2.10 – 2.30	<i>Teena Clerke</i> <i>Faculty of Education</i> The impact of an increased presence of women in the emergent scholarly field of design <b>Feedback and Chair:</b> Ms Eva Cox	<i>Sanjay Ramesh</i> <i>Faculty of Humanities &amp; Social Sciences</i> The politics of Fiji's four coups <b>Feedback and Chair:</b> Professor John Rice
2.30 – 2.50	<i>Dominic Hare</i> <i>Faculty of Science</i> An introduction to metallomics research at UTS <b>Feedback and Chair:</b> Ms Eva Cox	<i>Andrew Booth</i> <i>Faculty of Humanities &amp; Social Sciences</i> James Cook. Bad Lieutenant? <b>Feedback and Chair:</b> Professor John Rice
2.50 – 3.10	<b>Afternoon Tea</b>	
<b>Session 4</b>		
3.10 – 3.30	<i>Jennifer Preston</i> <i>Faculty of Design, Architecture &amp; Building</i> The Public Stairway in Sydney's Urban Morphology <b>Feedback and Chair:</b> Professor Doug Elliott	<i>Sarwat Al-Qassab</i> <i>Faculty of Science</i> Multiplex PCR for typing strains of <i>Neospora caninum</i> <b>Feedback and Chair:</b> Professor Mark Tennant
3.30 – 3.50	<i>Richard McDermott</i> <i>Faculty of Education</i> Wasted skills: The hospitality industry and its young chefs <b>Feedback and Chair:</b> Professor Doug Elliott	<i>Yi Wang</i> <i>Faculty of Engineering</i> Comparative Study of Control Strategies for Permanent Magnet Motors <b>Feedback and Chair:</b> Professor Mark Tennant
3.50 – 4.10	<i>Julia Ting</i> <i>Faculty of Science</i> Cost effectiveness and patient outcomes of a novel prognostic test that detects Diabetic Retinopathy <b>Feedback and Chair:</b> Professor Doug Elliott	<i>Mariana Rodriguez</i> <i>Institute of International Studies</i> Chicano performer El Vez uses popular music to narrate his community's history <b>Feedback and Chair:</b> A/Professor Paula Hamilton
4.10 – 4.30	<i>Cristina Garduno Freeman</i> <i>Faculty of Design, Architecture &amp; Building</i> The Mediating Gaze of the Sydney Opera House <b>Feedback and Chair:</b> Professor Louise Edwards	<i>Sue Smith</i> <i>Faculty of Education</i> Women's volunteerism as a commitment to grow an Australian Breastfeeding Association <b>Feedback and Chair:</b> A/Professor Paula Hamilton
4.30 – 4.50	<i>Jerry Watkins</i> <i>Faculty of Information Technology</i> Social Media and Participatory Content Creation <b>Feedback and Chair:</b> Dr Patrick Tooth	<i>Dakrong Pissuwan</i> <i>Faculty of Science</i> Selective targeting of <i>Toxoplasma gondii</i> tachyzoites using antibody-functionalised gold nanorods <b>Feedback and Chair:</b> Professor Mark Tennant
4.50 – 5.10	<i>Nurul Barizah</i> <i>Faculty of Law</i> The Implementation of Patent and Plant Varieties Protections in Indonesia <b>Feedback and Chair:</b> Dr Paul Allatson	<i>Heidi Norman</i> <i>Jumbunna Indigenous House of Learning</i> The beginnings of Aboriginal land rights in NSW: from 1983 to 1989 <b>Feedback and Chair:</b> Professor Mark Tennant
5.10 – 5.45	<b>Refreshments, Cheese &amp; Biscuits</b>	

**9<sup>th</sup> Annual University Graduate School/Student Services  
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Abstracts**

**Atef Abuhmaid**

**'ICT Integration as a Mechanism for Educational Reform within Jordanian Schools: Choice, Context, and Costs'**

Educational systems worldwide are rushing into integrating Information and Communication Technologies (ICT) in order to stay abreast of technological rapid changes and the rise of the knowledge-based economy. The Jordanian education system is no exception. Nonetheless, the numerous experiences from countries worldwide have highlighted the elusiveness of ICT integration in educational contexts engulfed by complexities within education itself and its adoption of innovations. In this research project, a mixed-method approach was utilised in order to explore Jordan's recent experience with ICT integration. Two questionnaires, directed to teachers and principals, were distributed in purposefully selected school and they were followed up by two cases studies involving two schools and interviews at the directorates of education level and the Ministry of Education. This study identified three main constraints for ICT integration in the Jordanian educational system including Jordan's location, the country's economic status, and the complexity involved with ICT integration in general. As Jordan is a developing country relying on external aids, the educational system needs to be particularly concerned with capacity building of the system and the sustainability of its efforts for ICT integration.

**Sarwat Al-Qassab**

**Multiplex PCR for typing strains of *Neospora caninum*.**

*Neospora caninum* is protozoan parasite that causes abortion in dairy cattle. A multiplex PCR assay was designed for multilocus strain typing of *Neospora caninum* based on length polymorphism of three mini- and microsatellite markers. Twenty one strains of *N. caninum* already sequenced at these three markers were used as control isolates. This method is simple, rapid, reproducible, and adapted to a large set of isolates.

**Nihaya Al-Sheyab**

**The Effect of Peer-Led Asthma Education on High School Students in Jordan**

**Background:** Asthma is a common health problem in adolescents worldwide, but particularly in the Middle East, where the prevalence has increased dramatically. However, few interventions have been tested in this population.

**Aim:** to examine the effect of a peer-led asthma education program (the Triple A) on quality of life, asthma knowledge and awareness, and self-efficacy to resist smoking among adolescents with recent wheezing. **Method:** a cluster randomised controlled trial with three months follow up was conducted in four high schools in Irbid region in Jordan. 1522 high school students in year 8, 9, & 10, were screened for asthma symptoms. Female students consisted 43.3% of the sample at baseline. 243 students (93%) completed the follow up. Two schools (132 students) received the Triple A program and two schools (129 students) did not. The Triple A program has three steps including training volunteers from year 11 to be Asthma Peer Leaders (APLs) during a 6 hour workshop. APLs then conducted two 90 minutes asthma lessons for year 10 students. Finally, groups of year 10 students transformed what they have learnt during asthma lessons into key asthma and smoking messages in forms of drama, poetry, and short acts, and present it to the school community during a special assembly.

**Results:** 261 (17.1%) students screened, reported recent wheezing. Preliminary results showed that mean change in scores of overall quality of life, asthma knowledge, and self-efficacy to resist smoking were higher in the intervention schools than those in the control schools (0.74, 1.38, 5.56 vs -0.09, -0.74, -0.54 respectively). **Conclusion:** the Triple A program is an effective program in improving asthma related quality of life and asthma awareness among asthmatic adolescents in Jordan.

**Dick Audley**

**A comparison of course approval procedure across three Australian universities - the Australian Catholic University, the Australian National University and the University of Canberra.**

The presenter is investigating perceptions of course approval procedure across Australian higher education. All Australian universities have the right to self-accredit the courses leading to their awards, although as there is no standard procedure for doing this, the methods for assessing the

quality, content, and commercial viability of course proposals differ greatly from one institution to another. The rigorous assessment of new and amended courses forms the first line of defence against sub-standard programs, and is taken extremely seriously by all universities. There has, however, been little comparative study of these procedures across Australian higher education, particularly in the post-Nelson era. The paper examines the course approval procedures of three Australian universities in some depth, and investigates the similarities and differences in practice between them, noting the philosophy and pedagogy of each institution, and suggesting by extrapolation a number of the principles governing course approval the researcher expects to find more generally across the sector. The paper foreshadows additional investigative procedures into course approval procedures at these and other institutions, and explains how the outcome is likely to be incorporated into the presenter's PhD.

### **Nurul Barizah**

#### **The Implementation of Patent and Plant Varieties Protections in Indonesia**

It is widely acknowledged that a strong protection of intellectual property is an essential prerequisite for investment in research and development (R&D) and machine for driving technology transfer in most developed nations to serve the development objectives. Yet, it is not always the case in developing countries like Indonesia. The problem arises because the legal substance, legal structure and legal culture do not work simultaneously and integrally. This article provides an analysis of the dysfunction of the IPR regime, particularly patent and plant varieties protection in Indonesia in facilitating R & D as well as transfer of technology. In other words, it fails to serve development objectives in Indonesia as provided under the TRIPs Agreement. Otherwise, in certain sectors of development, like in the public health sector, the existence of the regime could make it worse and in the case of genetic resources conservation, to some degree it facilitates the misappropriate use of genetic resources without fair and equitable benefit sharing from the use of such resources. The most important feature is that this regime does not work well in the context of Indonesian communal culture. And thus, tends to punish prevailing traditional wisdom and its values. This research combined between normative and sociological legal research, and interviews with relevant government officials and NGOs in Indonesia have also been conducted to complete the actual data and condition.

### **David Bond**

#### **The Value of the Merger of Ernst & Young and Arthur Andersen in Australia: Some Evidence**

On 16 May 2002, Andersen and Ernst & Young (EY) partners in Australia finalised the details of the merger between the two audit firms. The merger, as it has been labelled by the Australian Competition and Consumer Commission (ACCC), was the culmination of 7 months of speculation and drama following disclosure in the US on the 21st of October, 2001 that Enron was reducing its after-tax net profit by \$544m with media speculation over Andersen's involvement. The events in the US coincided with the problems facing Andersen in Australia, following its alleged involvement in the collapse of HIH. The new entity arising from the merger would be known as Ernst & Young Australia, making no reference to Andersen as a merging partner, and it would be Australia's second largest professional services firm with the largest share of the Australian audit market. I examine the merging of the audit practices of EY and Andersen in Australia in the wake of Andersen's demise in 2001. This study focuses, in particular, on EY's strategy to build and maintain market share following the collapse of AA in Australia. This is achieved by investigating how market share increases were attained, either within specific markets, or across a broad range of markets. Using methodology developed by Francis et al. (1999), the results suggest that market share gain was primarily within specific markets, which is suggestive of market leadership considerations driving the merger.

### **Andrew Booth**

#### **James Cook. Bad Lieutenant?**

A consideration of Cook's scientific practice in the Pacific generated startling data about firearm use. A closer examination of Cook's Journals produced considerable evidence of violence by Cook and his 'people' that directly contradicts the wholesome Captain Cook as humanist/enlightened scientist narrative. All of this is in Cook's own hand. Although he was violent in Australia, he was unusually un-violent relative to his normal level of violence elsewhere in the Pacific, according to the Journals; according to Cook. But how violent were Cook and his "people" in Australia? How "brief" was their contact? How was the violence recorded? Do the Journals more directly reflect the exhortations of Cook's Secret Instructions to be civil with "the natives" (while possessing their land) even though shootings were bound to occur? Separately, even though such evidence is well

known, it has had little impact on the prevailing story about Cook. The author contends that such routine blindness to the facts of Cook is a manifestation of a basic need for strong stories and strong characters. Unquestioning adherence to the Cook humanist narrative is analagous to unswerving belief in the similar narrative that presents Science as an always reliable and humanitarian endeavour. Both narratives are contestable. The contestability of strongly 'believed' narratives is one subject of the author's PhD thesis: 'Trust me. I'm a scientist.' which examines the function of myth in the practice of modern science.

**Thea Marie Brolund**

### **Damselfish metabolic adaptation to changes in temperature.**

Ambient temperature is one of the most important factors regarding fish growth and population dynamics. The majority of investigations on fish growth and population dynamics are focused on temperate water species. To date these studies have demonstrated that most fish exhibit reduced body size, growth rates and life spans at low relative to high latitudes. Few such comparisons have been made for tropical species to date, although observations so far suggest patterns similar to those observed in temperate water species. The aim of this study was to investigate the possibility of metabolic adaptation under different temperatures and how this might contribute to latitudinal compensation in growth. We compared the O<sub>2</sub> consumption of two damselfishes, one with brood care and thus very limited inter-generational dispersal, and one which has a dispersive larval stage as is typical for tropical reef fish. Results show a statistically significant temperature adaptation to the metabolism of the brood caring species among the three locations. Two of the dispersing species populations did not show different metabolic rates. However, contrary to expectations, the northernmost population of the dispersing species was significantly different rate of metabolism than the other two. Could this suggest the existence of two genetically distinct populations? The overall pattern of differences in metabolic rate suggests a genetic component to this adaptation. Given that the current global climate models predict an elevation of sea surface temperatures, such metabolic compensation may have implications for fish productivity along the Great Barrier Reef.

**Jane Bullen**

### **Homelessness: from social problem to individual problem**

What are the effects on homelessness policy and services of the increased emphasis on dealing with social problems by means of addressing individual problems? The research aims to break new ground by engaging philosophical assumptions of autonomy or self-responsibility and community or shared responsibility to illuminate social policy shifts: selective charity, the welfare state approach and in particular the more recent moves to neo-liberalism and neo-conservatism. The current emphasis is on individual choice and self-reliance but also mutual obligation, individual case management, government intervention and monitoring. The hypothesis is that conceptual and policy shifts have moved the balance to problematising homelessness as an individual not a social problem. The research uses in depth interviews with people who have worked in non-government and government areas related to homelessness over the past 20 to 30 years about changes they noticed in policy, service provision and perception of need. I am a participant observer, having worked in the homelessness area for many years. The research shows that workers on the ground believe some aspects of recent changes have enhanced individual autonomy, but government failure to address broader issues threatened these gains. While both individual and social factors need to be addressed in dealing with homelessness, the balance has shifted away from the systemic to the point where this presents an obstacle to solving the problems of individuals and risks conceptualizing homelessness as a problem of individual pathology at the expense of recognition of social issues.

**Marion Burford**

### **Perceptions and experiences of care amongst higher education students**

My interest in developing a better understanding of care was sparked by a chance comment of a colleague from the business faculty's teaching support unit. One of the findings of their research with first year students was that 'students wanted their lecturer to care'. I did not know exactly what a student of mine would mean by care. On searching the higher education literature I found little on care as a topic. Though, there is mention of care in other fields such as early childhood and secondary education, and in other 'caring' professions such as nursing. The various conceptions of care in these situations did not immediately translate into the university environment. Rather, care presents as a complex, multifaceted, subjective and context-laden concept. My research aims to gain insights into the perceptions and experiences of care amongst students in their early transition years at university. An interpretive approach will be applied to

capture the diversity and richness within and across each individual's story. Students, drawn from a first year subject in the business faculty, will be interviewed using a phenomenological methodology focussing on their experiences at university. The stories will be analysed, individually and collectively, for emerging themes, concepts and ideas using qualitative analysis software. These will be mapped using contextual similarity to help bring clarity as to just what the concept of care means in the higher education milieu. Being able to contextualise and understand care from the student's view will help inform teaching in higher education.

### **Rosalind Carter**

#### **The role of the supervisor in facilitating learning at work**

The changing nature of work and changing customer demands for products and services are driving the need for organisations to develop and maintain responsive workforces. Workplaces increasingly need to become places for learning. Workplace supervisors are increasingly expected to manage not only productivity and service provision, but also facilitate effective and efficient workplace learning environments for others. Workplace learning related literature suggests a need for development of learning opportunities and facilitation practices in workplaces to more effectively engage workers with learning. Practice base observations suggest supervisors may not be appropriately equipped for roles as learning facilitators nor adequately supported in these roles by the organisation. Inquiry into the actual and documented role of the supervisor, in the context of a contemporary government organisation, will be framed by the theoretical concepts of communities of practice and situated learning. The research design, incorporating interpretive case study methodology, seeks to identify sociocultural influences on workplace learning and workplace practices that may aid or constrain effective facilitative roles. The research aims to make a contribution to understanding of workplace learning facilitation and workforce capability development.

### **Teena Clerke**

#### **The impact of an increased presence of women in the emergent scholarly field of design**

In the mid-1980s, significant numbers of women entered design practice at a time when design education moved from the technical college to the university. For the first time, women were present in an emergent discipline that was informing shifts in thinking about the social role and function of design. While this process of 'academicisation' also challenged thinking about design education, major changes in the university in the 1990s fundamentally altered the scope, conditions and terms of work in the academy, reconstituting what it means to be a design academic. This research investigates the impact of an increased presence of women at this distinctive moment in the emergent scholarly field of design. The purpose is to generate new knowledge about women's contributions to the field by collaboratively examining how women's experiences have shaped their teaching practices, scholarly writing and doctoral research and how in turn, this is shaping design as an academic discipline that will influence future generations of design practitioners. Through the framings of institutional ethnography, feminist standpoint theory and poststructuralist theory, women's stories of their experiences in the design academy will be collectively analysed using ghostwritten interviews and memory work to shed some light on what women are contributing to the field and how this may be spoken about.

### **James Flowers**

#### **Chinese Medicine is becoming increasingly a world wide phenomenon**

It has spread outside its homeland or base and is used by tens of millions of people outside of China and North East Asia. The historian, Volker Scheid, described this phenomenon as being like a funhouse mirror world. He has described how Chinese Medicine has been imagined by people in the west seeking something exotic or at least not belonging to the cold, hard world of science. Chinese Medicine was packaged for the western world by some people in China in a western form palatable to those who know nothing about Chinese culture. The historian, Kim Taylor, described this phenomenon as a cultivated misunderstanding. The historian, Paul Unschuld, claims that Chinese Medicine is dead. He claims that the soil that fed and nourished Chinese Medicine, pre-modern Chinese culture and its world view, has been dug up, leaving Chinese Medicine high and dry. If one is to argue for a form of Chinese Medicine that is supposedly traditional, then we need to understand what that actually means. My research is looking at cases in the Qing Imperial Palace. The aim is to humanise the physicians and the patients and to analyse the motivations, the desires, and the goals of these people. I want to analyse why and how they thought and acted as they did. This may go some way to thinking more about the questions posed by the aforementioned historians. Medicine lies at the heart of what it is to be human and this research aims to be a way of looking at Qing China in a different way.

**Cristina Garduno Freeman**

### **Tourist Snapshot: The Mediating Gaze of the Sydney Opera House.**

Each year 250,000 tourists visit the Sydney Opera House. Each year these visitors peer through the lenses of photographic devices to discover, confirm or debunk views of this prize building of the modern canon. The Sydney Opera House elicits a public desire to scopically capture and souvenir its iconic form and cultural narrative. Tourist photography, the primary scopic regime of travel, is a ritual performed in the experiencing of 'place' first hand. Until recently, the study of such tourist practices has chiefly been addressed within the disciplines of cultural geography, sociology and anthropology. But these images, and how and why tourists are motivated to take them, can also inform our ideas about architecture and its experience. When a tourist photographs a destination such as the Sydney Opera House, what exactly is at play? The consumption of a place, its myths, narratives and dramas? The appropriation of architecture into personal collections of sites? Or reification of the experience? These tourist artefacts and practices describe the particular relationship of tourists to architecture and thus reveal much about how a building is understood. The Sydney Opera House is an exemplar site on which to investigate these questions, as a great part of its cultural narratives have grown from the architecture. There has already been much scholarly work produced about the Sydney Opera House, discussing its architecture, the historical and political context of its commission and its symbolic meaning within the city of Sydney. However little scholarly attention has been paid to the way this building is imaged through tourist practices of photography. The essay draws upon John Urry's notion of the 'tourist gaze' and how this structures and regulates relationship to place, and the work of Jonas Larsen on tourist photography as a performance located at the intersection of space, experience and image, to reveal the mediated gaze of the architectural tourist destination.

**Katharine Grimwood**

### **Investigation into the role PU plays in pre and post flame fire scenario**

The gaseous output of individual polyurethane (PU) foam furnishing items during the flaming stage has been a significant topic for study over the last 40 years. Past research has shown hydrogen cyanide (HCN), among other toxicants, to be detectable during the flaming stage of flexible PU, yet HCN is not considered significant in fire fatalities. That, coupled with the exponential increase in the use of rigid and flexible PU in Australian domestic dwellings prompted the authors investigation into the role PU plays in pre and post flame fire scenario. The author seeks to undertake a more holistic, realistic, study of PU as it is heated. HCN emission from PU is being studied in the pre-flame and post suppression stages of a fire. The temperature(s) at which HCN evolves from flexible, rigid and alternative PU products is being investigated. In product will also study the relationship between the amount of PU present in a cell or structure and time till flashover. This research intends to highlight the role HCN in domestic dwelling fires in Australia. Results of the research will be used to provide increased safety awareness for consumers and fire practitioners, as well as to suggest recommendations regarding existing codes concerning the use of PU in domestic dwellings. It is hoped this research reduce the number of fatalities attributed to PU in Australian domestic dwelling fires.

**Dominic Hare**

### **An introduction to metallomics research at UTS**

Trace elements in the human body play vital roles in both normal health and many diseases and the study of their involvement in biological processes is called 'metallomics'. UTS has possession of two inductively coupled plasma-mass spectrometers (ICP-MS), which are capable of measuring extremely small levels of trace elements. Recent research projects in the Department of Chemistry, Materials and Forensic Science have focused on the analysis of biological samples using these instruments. This has resulted in the formation of a 'Metallomics Research Group' within the department. Current projects include:

- Imaging of trace element 'hot spots' in the brains of rats with Parkinson's disease, from which the term Metal Imaging Mass Spectrometry (MIMS) has been coined. Images are generated by firing a laser at thin sections of rat brain tissue and analysing the ablated material. This technique is known as laser ablation ICP-MS.
- Development of novel methods for the quantification of ultra-trace levels of elements in tissue. These include the coating of microscope slides with micron-thick layers embedded with gold nanoparticles and other trace elements, and depositing sub-nanograms of trace elements directly onto tissue samples.
- Coupling of separation devices to ICP-MS, facilitating the identification of metallo-organic compounds, including proteins, which are potential biomarkers for certain diseases. UTS is the

only university in Australia currently researching metallomics, and recent results have been of a very high standard. Future directions for the research group will involve further refinement of our current methods and the expansion of these applications to other areas of interest in health science.

### **Edwina Hine**

#### **The efficacy of immunoaffinity purification of hCG from doping samples**

Peptide Hormones such as human chorionic gonadotropin (hCG) and human erythropoietin (EPO), are a major class of banned substances. hCG is a peptide hormone responsible for the stimulation of sex hormone secretion. The compound is of interest in the area of sports drug testing as it can be misused by male athletes to induce production of endogenous testosterone. It occurs naturally in humans during pregnancy, trophoblastic diseases, testicular cancers and other tumours. hCG appears in blood and urine in various states: the dissociated  $\alpha$  and  $\beta$  subunits; intact hCG; and as other fragments such as nicked intact or nicked free  $\beta$  subunits of hCG. At present, an immunoassay is the only recognised method for the detection of hCG. The discriminatory power of immunoassays is quite high (and adequate for most clinical purposes), however it is not high enough for sports doping purposes where a much higher standard of proof is required. This is due to the cross reactivity of the assay with other hormones that have a similar structure to hCG. As a result, anti doping labs are pursuing a more definitive confirmatory method of detection for many glycoproteins. In developing a reliable LC/MS/MS (liquid chromatography/ tandem mass spectrometry) method for the detection of glycoproteins such as hCG, it has become apparent that the purification of the hormone from the athletes urine is a critical part of the sample preparation. This presentation will detail immunoaffinity extraction of hCG as a major component of my research. Data will be presented highlighting the specificity, efficacy, and the necessity of immunoaffinity purification for the detection and quantitation of hCG in athletes' samples.

### **Hooman Homayoonfard**

#### **A new physical modelling for multi-phase hierarchical data clustering on heterogeneous datasets**

Knowledge discovery processes have become important issues for many research projects over the past decades. This has been caused not only by the growth in the size of datasets but also in the availability of otherwise unavailable datasets over the distributed sites and the increased value that organisations now place on the knowledge that can be gained from data analysis. It is therefore not surprising that the increased interest in data clustering and classifying has led also to an increased interest in mining such knowledge. This paper subsumes an earlier bibliography and introduces a new physical modeling for multi-phase hierarchical data clustering on heterogeneous datasets.

### **Michael Kerans**

#### **Bridging the rental gap of affordable rental housing: is there a viable model?**

The affordable rental housing sector is critically under-supplied. As public sources of funding are scarce, private investment to provide such supply is considered essential. However the return from affordable rental housing is low (the 'rental gap') compared to other investment options which makes attracting private investment difficult. There are several largely theoretic funding models which produce an improved return from affordable housing however none have been applied to any great extent. This research will consider the potential of those models, or a combination of the models, to successfully attract private investment in to the sector in the current environment.

### **Mohammad Ashraf Khan**

#### **Propagation of Indigenous Architecture**

Substantial financial and skilled manpower resources continue to be invested (estimated at USD 20 million annually, spanning over more than 1500 non-profit organizations operating internationally), into the propagation of the direction of thought which has come to be known commonly by the term, from among a whole range of other similar-meaning ones being used, indigenous architecture. Still, the ultimate objective of inspiring a higher priority to be awarded to cultural considerations in architectural design briefs as well as government policies, has yet to be fully realized, and in the particularly complex case of developing countries, may stand only marginally accomplished. It is being argued here that since any act of propagation is in essence an act of negotiation, this investment is more likely to yield a higher degree of efficacy if the problem is analyzed and confronted accordingly from a communications perspective. Although

this amounts to a major shift in approach, it nevertheless provides a working framework for combining emergent research about the need for cultural-sensitivity in environmental design, including closely-related social sustainability principles as well, with the ethical responsibility of the architectural profession to incorporate the same, and then for placing both in an optimally consolidated position against the primary constraint of media-popularized preferential value systems. Theoretical correlations of this practice-based proposition are then being identified for further research, challenging the diminutive label of traditionalism which the otherwise mostly semiotic transfixations of indigeneity have had to be relegated to in the past, finally contending that such a re-positioning of this concept, based on latest empirical, ethical, and communications theories, actually places it in closer proximity to positivism than the consumerism being increasingly generated by modernity itself.

### **Kerry Little**

#### **Stories of the Lepchas - starving for their culture**

The atmosphere in Gangtok has taken a turn. No-one yet knows if it's for better or worse but if you sniff the air that swirls around Bhutia-Lepcha (BL) House on Tibet Road, spreading the scent of the early monsoon rains and the Dikchu mudslide, you can smell a recent history of disappointment and dissatisfaction that has morphed into determination and courage. Three men sit cross-legged on a mattress outside BL House and start the hunger strike that weeps for the rivers in Sikkim. The mighty Teesta as it is often described in tourist literature and in photo captions, is having its 'might' diverted into dams to create power. Not just power for the people of Sikkim, but 26 mega-hydro electric (hydel) projects are in progress or slated for the tiny Himalayan Kingdom. The hunger strike has been called to draw the attention to the long-term implications of mega hydro-electric power projects - especially in the Dzongu area of North Sikkim. I travelled to Sikkim in search of the old folk stories of the Lepcha. I had hoped to learn whether the passing on of old stories and traditions encourages younger Lepchas to connect to their culture. Instead I found an environmental and cultural crisis - the mega-development of hydro-electric power - that could wipe out the Lepcha culture if successful. However, if it's not and the Lepchas win their battle for their land, the threat of losing it will be the most compelling reason to preserve it.

### **Richard McDermott**

#### **Wasted skills: The hospitality industry and its young chefs**

Rapid changes in industry and the world of work require vocational education training, VET, providers to consider their role in industry skills shortages and how they can respond to pressure from government and industry groups to address the need for effective training. This research seeks to throw light on large training organisations, such as TAFE and the hospitality industry to address these current concerns, particularly in light of critical, industry and government reports on skills shortages within the industry. It will seek to probe commercial cookery training and the hospitality industry, to ask the question as to what can be done to stem the high turnover of young chefs. The research will also explore the composition and effectiveness of both formal and informal learning of the trainee along with the industry and training organisation's capacity to produce long term employment prospects for the trainee with the industry's needs to retain skilled, productive employees. Thirteen stakeholders from industry and training organisations, both here and in the UK, including recently graduated trainees were interviewed with thirty semi structured questions over the last year. The final questionnaire was developed in two stages with the second stage validating and building on the first stage. The participants' responses were grounded in practice as they used their own experiences as the basis of their responses. This paper will report on the initial findings from that empirical, qualitative data which will, eventually, be triangulated with quantitative statistical data and related research literature.

### **Zafar Mehboob**

#### **Change Impact Analysis (CIA) in Web systems**

In traditional software engineering methods, change impact analysis (CIA) is the dominant approach to analyze the effect of a change. However, change management and change impact analysis in Web-based applications presents special challenges that have not been well addressed by existing CIA techniques. CIA often treats hyperlinked Web documents as a set of text files and disregard crucial structures in a Web-based application such as internal structure, navigational structure, logical structure, and compositional structure among Web objects. Key limitations include their inadequacy to analyze Web objects interdependency and their inability to assess the effect of changes to those important structures among objects making up a Web application. This paper presents the motivation for CIA-centered framework for Web system. Web specific CIA,

could give Web developers the ability to analyze the deeper (fine-grained) change impact on Web objects and their structures at different levels of abstraction.

### **Heidi Norman**

#### **The beginnings of Aboriginal land rights in NSW: from 1983 to 1989**

This paper, part of a larger study of land rights recognition in NSW, details the initial activities of the Aboriginal Land Council network in the period 1983 to 1989. Aboriginal land rights was formally recognised with the passing of the *NSW Aboriginal Land Rights Act 1983*. The ALRA repealed the assimilationist *Aborigines Act 1969* and put the policy for Aboriginal affairs in NSW along the path of self-determination. The ALRA established the three-tier community driven land council network, a fifteen year funding arrangement to support enterprises and sustain the network into the future and a mechanism for land recovery. The initial phase of land council activity was a mix of disappointment and some success. There was strong criticism from the NSW Auditor-General and Labor Government over accountability and the Liberal Coalition (and later Government) proposed to close the land council network down and seize its assets. Corruption was alleged, land claims were slow and in some cases required protracted legal battles on the part of land councils, and some enterprises were developed. Despite these difficulties, by the end of the first phase the land council network was emerging with greater authority as the peak Aboriginal representative body in NSW, were involved in negotiating relations with Government, particularly at the local level, and it's possible to discern the self-determination aspirations that have been so much a part of the demands Aboriginal people have made of the state.

### **Sue Osmond**

#### **Cleo's Clothes - post modern interpretations of feminine power in Shakespeare's Antony and Cleopatra.**

French theorist Roland Barthes speaks of theatrical dress as a kind of writing in which the basic element is the sign. If fashion can be said to be a system of signifiers comprising a visual language, then I suggest that costume design can be said to be 'poetry', operating on multiple levels of meaning: both implicit and explicit, overt and covert. This paper examines the construction of feminine identity in portrayals of the fictional character of Cleopatra in Shakespeare's 'Antony and Cleopatra'. The character of Cleopatra resonates throughout the centuries as an archetype - a site of reflection of a cultures' attitude to feminine power. Shakespeare embedded within his text many sartorial references in order to elucidate his characters and create nuance that goes beyond the spoken word. These would have had significant meaning for an audience whose relationship to clothing was quite different from that of a modern audience. Through a textual analysis of Shakespeare's script and examinations of historic and contemporary visual images created by costume designers on stage and screen I will discuss changing attitudes to feminine power since the beginning of the 17th century, when the play was written. The tension between the intent and purpose of the sartorial references within their original context and meaning and that of the modern interpretation is discussed in relation to portrayals of Cleopatra. I argue that the challenge is in reinterpreting this visual coding so that the significance of Shakespeare's sartorial references remains cogent and the full meaning and resonance of the work remains intact.

### **Robert Pastorelli**

#### **Foucault: Values, Power and Ethics**

This paper embarks upon an examination of Michel Foucault's work and applies this work to the problem of values. This task is made difficult because Foucault did not systematically examine values in his work. He does mention values frequently in his last book, *The Care of the Self*, but these references treat values in traditional ways and assume that values are not problematic for the reader. 1) The first section uses Foucault's work produced during his so called Genealogical period to discuss the possibilities for the origins of values and how they function in a disciplinary society. It specifically looks at the relationship between values and power. Values in this way can be seen as technologies of power and their uses are to subjugate and to multiply power into every part of the individual and the social body. 2) In Foucault's 'ethical period' he examines the relation of the self to self. Foucault does not discuss to what extent this relationship is influenced by power and therefore this work has a different emphasis to his earlier work. Ethics becomes the application of values to the self. These values which are applied to the self are historically contingent, for example, values of freedom or of citizenry, however the modality that this relationship takes, that is, the relationship of the self to self, may well be a-historical. By this I mean that Foucault, uncharacteristically, seems to promote a kind of aesthetic basis for his brand of ethics- a giving style to oneself. 3) The final section considers Foucault's critique of

humanism and the consequences of this critique to the analysis of values in general. Most commentators believe that Foucault was resolutely anti-humanistic but is this an accurate assessment?

### **Dakrong Pissuwan**

#### **Selective targeting of *Toxoplasma gondii* tachyzoites using antibody-functionalised gold nanorods**

Precious metal nanoparticles have attracted considerable interest on account of their actual or potential applications in chemical, biological or medical analyses, and for their applications in various new types of optical devices or systems. These particles can be engineered to absorb light at a particular wavelength and they can also be chemically functionalised to bind to target cells. When combined in this way, the plasmonic heating that accompanies the absorption of light will deliver a hyperthermal payload to the nearby biological material. This principle is currently being explored as the basis of a novel form of medical treatment for cancer. In the present work, we extend this concept to develop a method for selectively killing target protozoa using gold nanorod-antibody conjugates. Once the gold nanorods are bound to their target, plasmonic heating is invoked in the gold particles resulting in delivery of a photo-thermal dose to the target organisms. Gold nanorods were conjugated to anti-*Toxoplasma gondii* 30kDa antibody at pH 7.5. The extracellular tachyzoite form of *Toxoplasma gondii* (RH strain) was used as the target protozoan. Binding of the nanorods to tachyzoites was confirmed by scanning electron and confocal microscopy. Irradiation of tachyzoites labeled with the bioconjugated gold nanorods was achieved using a 100 mW continuous wave diode laser (at wavelength 650 nm). Cell viability was determined by SYTOX green nucleic acid stain. We show here that exposure of the targeted cells labelled with bioconjugated gold nanorods at the highest laser fluence of 50.83 W/cm<sup>2</sup> resulted in 85% cell death compared to only 15% in the control (non-labeled tachyzoites). This provides the exciting and novel possibility for the in vivo killing of extracellular tachyzoites using photothermal therapy.

### **Jennifer Preston**

#### **The public Stairway in Sydney's Urban Morphology**

Public stairways are a specific type of urban artifact that occur in particular types of cities, those with hilly terrain. At first glance public stairways may seem a trivial or insignificant object of study but my work argues that Sydney's public stairways, like the Piazzas of Rome or the Bridges of Venice, are 'an integral morphological unit' that is a vital but neglected element of the city's circulatory system, essential to its functioning and survival. In the city of Sydney, public stairways have been the sites of crime, espionage, and murder, they have connected people with their home and workplace, been the arrival point for dignitaries and the departure point for exports, they have been created to open up new suburbs and destroyed to allow for new development, they have been the sites of danger, celebration and the everyday. This thesis draws on archival research and observational analysis and utilises the theoretical work on walking and the city by such writers as Walter Benjamin, Jane Jacobs, Henri Lefebvre and Rebecca Solnit. Its urban theoretical position is based on work by writers such as Zeynep Celik, Spiro Kostoff and Mark Girouard. In this presentation I will review the methodology of the work to date, noting the gaps in the current material and propose strategies to address these.

### **Sanjay Ramesh**

#### **The politics of Fiji's four coups**

The first coup in 1987 was executed to stifle class based collaboration between Indo-Fijians and indigenous Fijians for a non racial political discourse. The second coup in the same year severed Fiji's ties with the Commonwealth and deposed the Governor General, Ratu Penaia Ganilau. Racial tensions remained despite Fiji's three post coup constitution reviews and in May 2000, armed gun men held the multiracial People's Coalition ministers hostage for fifty six days and coordinated race attacks against Indo-Fijians in rural areas from the parliamentary complex in Suva. As a result of the 2000 coup, an indigenous Fijian dominated Soqosoqo ni Duavata ni Lewenivanua (SDL) and the Conservative Alliance Matanitu Vanua (CAMV) coalition with many sympathisers of the 2000 coup formed government following the August 2001 general election. However, by 2006, the SDL government and the military had started a public fight over government policies and bills, which resulted in the December 2006 takeover.

## **Mariana Rodriguez**

### **Chicano performer El Vez uses popular music to narrate his community's history**

Chicano performer El Vez uses popular music to narrate his community's history and his preoccupation with claiming a place in 'America.' El Vez's work is strongly informed by the feminist critique of the Chicano Movement; this influence sets him apart from traditional patriarchal views of women since it allows him to represent empowered women in some of his songs. Using Chicano/a political history, performance and popular music to inform his work and illustrating the history and input of the Mexican American and Chicano/a communities, El Vez counters traditional ideas of national identity and belonging by making Chicano/a history part of 'American' history. El Vez chooses the figure of Elvis Presley as his 'model,' and positions himself as one of the 'brown' successors of the King's 'American' dream, effectively claiming an 'America' that is not just European-American or African-American. While to some observers this might appear to be an assimilationist move, it counters the dominant Black/White racial binary and claims a place for Brown people. In this way, El Vez not only disrupts the U.S. dominant racial discourse; he also unsettles the dominant Chicano national discourse of Aztlán that was historically imagined as a nation separate from the U.S. and Mexico.

## **Zoe Sadokierski**

### **Lost in Translation: describing the function of typo/graphic devices in prose-fiction, through theory and practice**

My research examines the integration of typo/graphic devices in prose-fiction (novels with pictures in them). Although not new, this is an insufficiently articulated phenomenon. It is of interest to Visual Communication Design because it reveals writers working in a 'designerly' way: writers are borrowing rhetorical techniques from the designer's toolbox. I have identified emerging interest in this phenomenon from designers, writers and critics, and recognised that the phenomenon is met with resistance from some, who dismiss the visual devices as 'gimmicky' or merely 'decorative'. Why are these typo/graphic devices being described as 'gimmicky'? I suggest: A) An inadequate understanding of the function of images (what can images communicate?), and; B) Insufficient available language to describe the function of images (how can we talk about what images communicate?). Despite much current discussion about a 'culture of the image' and a developing 'visual literacy', there remains a widely recognised need for a way to talk about what images 'do'. At the moment, this is explored primarily through semiotics and linguistics, which analyse images as if they were language. However, although similar, the verbal and the visual are not the same. Analysing images as if they were language does not account for the difference between Language and Image. What is lost in translation? What is it that images, or the combination of words and images, can communicate that words alone cannot?

## **Sue Smith**

### **Women's volunteerism as a commitment to grow an Australian Breastfeeding Association**

This presentation focuses on the findings of an insider doctoral study. I give particular attention in this presentation as commitment of one participant in my doctoral study. The objective of the research is to understand an under-analysed area of adult education in the community that is, motivation of volunteers and their activism who sustain a not-for-profit association. This Association provides free social community-based education and support for mothers who wish to breastfeed. It is well known breastfeeding initiative rate are high but that duration/continuation rates are a challenge for public health promotion. However, free community-based education and support by volunteers has been identified as a strategy for public health promotion. Through an interpretive, social constructionist methodology, this insider study interviewed twenty volunteer educators, including the researcher as a co-participant in the study. The presentation of the findings of one participant is through an exploratory analytic framework based on literature from identity, global and national public health promotion and professional development literature as a lens to illuminating the role of being a volunteer from her perspectives of her experiences. Key words: commitment, volunteers, education in the community

## **Ho Yee Julia Ting**

### **Cost effectiveness and patient outcomes of a novel prognostic test that detects Diabetic Retinopathy**

Aim: To evaluate the cost effectiveness and patient outcomes of a novel prognostic test that detects Diabetic Retinopathy (DR) before the development of clinical symptoms. Method: A Markov model was built to emulate the natural progression of DR, based on data from clinical trials, specifically the UKPDS and Da Qing IGT study. The cohort was characterised based on

Australian prevalence for Diabetes, DR and obesity; Australian costs and published quality of life data were also used. The model takes into account the likelihood of compliance with blood glucose level control as well as NHMRC recommendations for eye examinations and laser treatments for DR. The model was used to estimate the cost effectiveness of pre-DR screening; a novel, non-invasive innovation developed in our laboratory (W003103771) which can detect the damaging effects of high blood glucose on the retinal microvasculature, before the development of clinical symptoms. Results: The main outcome of the model are number of life years, sight years, and Quality Adjusted Life Years (QALY), which all increase significantly with the Pre-DR screening, particularly if there is a high rate of compliance to blood glucose control and NHMRC guidelines to eye examinations. Although screening for pre-DR is more expensive than not screening, the additional cost per QALY gained reduces over time. Conclusions: A markov model for DR progression was built, and it shows that screening for DR before the development of clinical symptoms is relatively cost effective.

### **Srivalli Vilapakkam Nagarajan**

#### **Theory of the relationship between non-technical work experiences of IT graduates and their University studies**

The main objective of this research is to describe and analyze the non-technical work experiences of recent Information Technology graduates with a view to generating a substantive theory of the relationship between non-technical work experiences of IT graduates and their University studies. Upon leaving University, the majority of IT graduates try to gain employment in the industry. Minimal research has been carried out in following graduates into their professional practice. Understanding graduate perceptions of the practical relevance of their courses or the development of knowledge and skills applicable to their work experiences is crucial information for both higher education and the Information Technology community. This study uses a grounded theory qualitative methodological approach with in-depth interviews as the chosen research method. So far six interviews have been conducted. The sample size for this research depends on the point of theoretical saturation and it is expected that the saturation is likely to occur between 20 and 30 interviews. In this paper, the interim findings from the data collected from the interviews done so far will be presented. The interview transcripts were examined to identify key issues. Dominant themes and new concepts raised by participants will be discussed. A coding model is being developed using NVivo so as to enable collation of data from interviews with multiple graduates and to identify specific patterns of responses. Finally, a brief presentation on how the research is likely to progress over the next year will be presented.

### **Yi Wang**

#### **Comparative Study of Control Strategies for Permanent Magnet Motors**

This paper presents a comparative study on widely used control schemes for permanent magnet (PM) motors. Both brushless DC (BLDC) motor and permanent magnet synchronous motor (PMSM) are considered. The comparison is based on various criteria including basic control characteristics, dynamic performance and parameter sensitivity. The six-step and direct torque control (DTC) methods of BLDC, the field oriented control (FOC) and DTC method of PMSM are analyzed theoretically and compared. Based on these basic schemes, the differences between PM DC motors and PM AC motors are illustrated and the performances of both FOC and DTC for PMSM drive are compared. Then some reported modifications for these strategies are investigated such as space vector pulse-width modulation (SVPWM) for FOC, space vector modulation (SVM) DTC and discrete SVM DTC. The modified performances of different methods are compared not only with the basic ones but also with each other considering the operation cost in real system. All above strategies are theoretical analyzed and simulated based on MATLAB/SIMULINK. A comprehensive comparison of the calculation cost of each control scheme in real drive system is presented. Thus, this paper may provide useful information for researchers and product engineers about control strategies for PM motor drives.

### **Jerry Watkins**

#### **Social Media and Participatory Content Creation**

Web2.0 technology has given rise to a growing number of social media tools including RSS feeds, content shares and podcasts. A rising number of cultural institutions worldwide are experimenting with such media as a means of encouraging individualised interpretations of knowledge by online communities of interest. This research examines the potential for social media to deliver improved interaction between cultural institutions and communities of interest. It compares participatory and non-participatory approaches to social media design by cultural institutions, with emphasis upon personalisation of content management systems; and co-creation of

narrative audio and video formats. The hypothesis is that by engaging communities of interest via social media, cultural institutions can recognize and acknowledge the value of cultural knowledge held by such communities. Research design is based upon two main tools: a case study of online collections-based social tagging at the Powerhouse Museum, Sydney; and an experiment in participatory content creation of microdocumentary podcasts at the Australian Museum. Participatory Design methodology is used to inform the investigation, within the wider framework of sociocultural theory. An original iterative design method is used to structure team-based creative inputs within a participatory environment. Evaluation techniques include participant surveys; audience focus groups; analysis of usage trends; and output analysis of participatory content creation workshops. Initial findings suggest that the design and implementation of social media programs within cultural institutions can benefit from a clear definition of desired performance with respect to communication strategies.