



## THIS ISSUE

The IBM Story

Graduates in Action

Women in IT

SCAP Success

December Graduations

Graduate School Kicks Off



CAIO Chat

Comings, Goings and Doings

News Flash

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# GSITMS Graduates of Distinction

## News and Views for Alumni

Graduate School of Information Technology and Mathematical Sciences

*"GSITMS making a difference"*

## I Have A Dream



On January 5, 2009 the School of ITMS became the Graduate School of Information Technology and Mathematical Sciences (GSITMS). What this means in practice is described later in this issue. However, here I **dream** about the future.

GSITMS is recognized for producing industry-ready Bachelor degree graduates. Upon graduation, they – especially those with the Bachelor of Information Technology (Professional Practice) - are up-to-speed with how to work in industry. Graduates of other universities who have not had similar experience often take a year to get up-to-speed. Having pioneered the integrated study-industry experience at Bachelor level, we can now do similarly at the doctorate level. This would *transform Australian* doctoral level education and have a major impact on research in Australian industry.

While PhD students often get their research problems from industry, the research is normally done at a university far away from frequent interaction with that industry. Sometimes the research output is useful for industry. But even then, the PhD student has done her/his research in a rarefied university atmosphere. On graduation, she/he has had no hands-on industry experience and is far from ready to continue to do research working in that industry. Invariably, the PhD graduate seeks work in a university. And Australian industry continues not to do research.

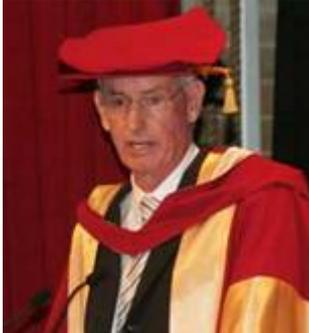
My dream is that we have suitable facilities to attract an industry partner to place staff at UB at least one day per week. Those staff would interact on a frequent basis with the PhD students working on their research problems. In fact it may be possible that while doing their doctoral studies, they would be employed, say, one day a week working on a specific industry task, not necessarily research. Then graduates would indeed be up-to-speed. If the graduate has done good work for the industry partner and also done good research in her/his PhD, she/he may get a good job offer from that industry partner and may accept it. Australian industry would be the beneficiary as it would become much more actively involved in research. This is what Australian industry needs if it is going to succeed in this globally competitive environment.

Is my dream far-fetched? **No!** Today we already do this successfully in the Internet Commerce Security Laboratory (ICSL). GSITMS has proved that its research in optimization, data mining, and statistics can make a significant difference in important areas such as water usage, liquid petroleum gas operations, solar heating usage, transportation and architecture. And we are now applying our firepower to the health area. There are exciting possibilities. Let's make this dream a reality!

*Professor Sid Morris, Head of School*

*The IBM Story*

**IBM’s transition energises UB’s Technology Park and local economy**



Late in 2008, **Dr John Harvey**, IBM global investment executive released his book “Transition – The IBM Story” (Switzer - Media and Publishing \$24.95). Any net proceeds from the sale of this book will be set aside to establish

a scholarship fund at UB for students graduating from the BIT (Professional Practice) degree who wish to proceed to post graduate IT studies at GSITMS.

This book traces IBM’s development as an Australian technology services exporter over the past decade to the benefit of both the company and UB. *Transition* tells the story of how a mutually beneficial partnership with Ballarat involving a positive collaboration between IBM, UB, the City of Ballarat and the State Government grew over that period to become a model for others. The joint vision was to make Ballarat a premier regional technology information hub.

*“The way Australia will be able to solve problems around becoming internationally competitive in services is through close collaboration between (appropriate) parties”*  
**Dr John Harvey.**

As the Premier of Victoria, The **Hon John Brumby** MP has commented:

*“Attracting IBM to locate a major Asia-Pacific facility at Ballarat struck me as an excellent investment for the State. This initiative created high-end jobs, established a relationship of mutual support with the local university [UB] and helped bolster a flourishing regional town. This book is testament to the success to this type of collaborative investment model, where there is genuine commitment and vision on all sides.”*

**Robert Hook** as UB’s then Pro-Vice Chancellor (1998-2006) retained responsibility for the ongoing development of UB’s Technology Park. He also reflects positively on Dr Harvey’s book.

*“Transition The IBM Story, tells of transformation through tough times and has important lessons for the reader as again we go through difficult times. The book outlines the amazing growth in the Information Technology Services Industry in Australia, the challenges to sustain it, and gives insight into the way forward which John refers to as Australia empowered. Highlighted is the important role the Ballarat operations of IBM have played in the transformation.*

*Why would IBM come to Ballarat? The obvious answer is a lower cost to operate and to be globally competitive. But importantly skills were a key factor with the alliance with UB ensuring a pipeline of talent to staff the Centre. It assisted IBM in building its market share of IT services business and export earnings in Australia. Students have had the opportunity to gain valuable work experience and graduate job ready. For UB it has assisted it to develop the critical mass it now has on its Technology Park and to build one of the largest Information Technology Schools in Australia.”*

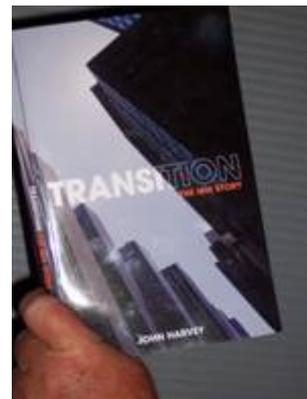
This new book demonstrates IBM’s significant contribution to Ballarat’s economy over the ten years since IBM took up occupancy at UB.

<b>IBM Contribution to Ballarat Regional Output (2004-05)</b>		
Output	\$259 million	5.5%
Gross regional Product	\$122 million	5.0%
Household Income	\$78 million	6.9%
Employment	1651 EFT jobs	4.8%

*(Transition The IBM Story p83)*

Major further expansion has taken place at Technology Park since 2004-05 which has further added to the positive regional economic impact as set out in the above table.

**Dr John Harvey’s recent book records important milestones in the IT Services industry in this country.**



**He has provided great insight into how to succeed in times of great challenge and change.**

*“Transition – The IBM Story” (Switzer - Media and Publishing \$24.95).*

*Graduates in action***The tale of the two Prakashes**

**Prakash Venkatarraaman** completed his Bachelor of Computing with Honours in 2000. As an International student, an important consideration for his parents was to find a regional University which would allow Prakash to focus on his studies (with none of the 'glittering'

distractions of a big city like Melbourne). UB fitted the bill perfectly. Prakash had been tinkering with computers and writing programs since he was very young. His degree however, was critical in providing him with the attributes that make a successful career:

- (1) *The ability to communicate and present well;*
- (2) *The need to develop a degree of business and financial acumen; and*
- (3) *The realization that he could achieve any outcome he wanted, if he focused and worked towards it.*

***"I have a lot to thank the UB for – for enriching my personal life with good friends, and for taking a somewhat introverted 'geek' and turning me into an effective professional."***

Prakash's Honours Thesis was in the area of eBusiness security, and was noticed by an American software company (Computer Associates), who employed him in Melbourne to continue to work in this area. Following this, Prakash worked at Deloitte Consulting and Toll Australia. Today Prakash works for CGU Insurance in Victoria, leading their IT Architecture team.

All three major attributes identified above have helped immensely to get Prakash to this point in his career. He says *"Businesses place a very high premium on someone who possesses business and financial capability, can apply them to complex business and IT strategies, communicate them in a simple and straightforward manner, and be able to drive the organizational outcomes."*

Prakash's memories of UB include many, many good ones. One prominent memory however, is that he was so talkative in class, his fellow students handed a signed petition to the lecturer to have

Prakash gagged during the class! He still likes to talk but in a business idiom.

**Prakash reflects that:**

***"The single best contribution that UB has made to my life is not professional, but personal. Most of my closest friends today are people I met when I started at UB in 1997, and we still see each other regularly. It has been an amazing journey for all of us so far - from being university students to having careers, getting married and travelling the world."***

**Prakash Karappurath**

*"I wish you prosperity in all that you seek to achieve in your ongoing careers as IT professionals."*

Whilst **Prakash Karappurath** has only been in the workforce for a few months he was able, through his *Address in Response*, to encourage colleagues who were also receiving their degrees at UB's December '08 Graduation Ceremony (see also Page 8). Prakash suggested

*"With this degree we enter a new world of opportunity where we will be able to use the many things we have learned while studying- both in and out of the classroom."*

*The group of us gathered here today represents a variety of backgrounds and experiences that have helped to give us an IT education stronger than we could have received anywhere else. We have explored ideas for the first time, and dealt with challenges that made us rethink opinions and the need to sometimes adapt to other people's ideas. We have made friends with people we never would have otherwise met, and these friends and the memories that we have shared will be treasured for years to come. This is a time of great promise for each of us, as together we celebrate the end of our formal studies and look forward to building future success "*

*Women in IT***A day in the life of Megan**

The GSITMS has recently appointed several Honorary Research Fellows to parties who have made continued and significant efforts toward the success of the ICSL. One of the recipients, **Megan O'Neill**, tells us about her career and her role in the ICSL.



Megan has had a role in ICT security and investigation for 15 years and throughout this time

she has worked on many high profile incidents which would cause an individual to question both our society and our myriad of cultures. Throughout this time and those challenges she has maintained a balance and effervescence that is both contagious and confronting. She strives to understand the cause and effect of a situation which has resulted in a reported behaviour. This style of analysis has made her a strong investigator and a skilled consultant – respected and in demand across the globe both by governments and corporations.

GSITMS' relationship with IBM both within the ICSL and UB's Technology Park, and the advantages that individuals such as Megan bring to the relationship is strengthening Ballarat's position as the 'Silicon Valley' of security. Megan feels that her role as the lead incident responder in Asia-Pacific for IBM CERT-A/NZ will only be strengthened by moving to a community that has such a significant investment and proven track record in Cybercrime research & ICT Security.

*"Well before dawn a lone figure sits in front of a computer monitor, silhouetted in its cold, blue glow. The figure sits, seemingly unmoving for minutes on end. The stillness is only occasionally broken with movement as the figure raises a steaming cup of coffee or with the flourish of fingers at the keyboard. While the contents of the coffee cup may have become low and it may no longer steam, in fact it is not even tepid, just plain cold, a security posture report for the region has been written and delivered, a brief made with IBM's 'global threat' team regarding the active exploitation of new vulnerability and a fraudulent ghost web site hosting malicious code has been closed.*

*A burst of incessant wailing from a monitor calls for the attention of the figure - with rapid movement the monitor is silenced before it disturbs the predawn peace. The figure leaves the dark, cave-like room that has hummed with the life of a high-powered computer system and its electrical lifeblood and answers the waking child that heralded the monitor's disturbing call. Lunches are then packed and children are dispatched...the washing doesn't make it to the line again today but it does make it to the machine for a change. Beats dealing with it on the weekend...*

*Three phone calls, two advisory pages and a teleconference are dealt with while contending with the traffic. Mid-morning sees the appearance of another cup of coffee and our figure being briefed on the status of three forensic investigations by senior security consultants. We liaise with our client contact and law enforcement agencies on the material identified in two of these investigations and the specific action of the malicious code seen on the fraudulent ghost web site closed earlier that morning. Our figure leaves the near full coffee cup which has not even had the chance of cooling to brief the law enforcement agents (LEA's) in a secure environment.*

*Mid-day sees our figure deal with the documentation required to support the brief's supplied the LEAs, two 'face to face' client meetings, six phone calls and three voice mails. Just as our figure turns to contemplate the time of day - and her lonely coffee cup, pagers throughout the office beep in what appears to the observer to be near harmonious union. To the owners of those 'black' badges of office its heralding means something far from harmonious. Several clients are reporting exploitation of the new vulnerability reported on in that morning's security posture report. They have failed to implement the mitigative recommendations made some nine hours before and are now seeking assistance in incident response and management. Now we see our figure and the team in unison spring into action - rapidly guiding their charges through the stages of Identification, Containment, Eradication, Response and while at the 'lessons learned' point we can see a few wry smiles - not one of them says anything about prevention being the best cure...they know that our figure will slip that into tomorrow's security posture report.*

*Late afternoon sees our figure and another CERT SME liaise with the ICSL on the latest SecIntel efforts of the team. The intelligence identified two disparate areas of investigation and together this demonstrated real advances in understanding how some cybercriminals cells are operating. Well after sunset our lone figure sits in front of a computer monitor, silhouetted in its cold, blue glow. While the figure sits, seemingly unmoving for minutes on end, the stillness is occasionally broken with movement as the figure raises a steaming cup of cocoa and the flourish of the washing which made it to the line."*

*Games we would all like to win*

## SCAP Success by GSITMS Students – ‘Game On’

During three days of November 2008 a third year project team attended the Brisbane based GCAP (Game Connect: Asia Pacific) conference and competed in the Independent Game Awards for the '2008 GDA Best Unsigned (Indie) Game Award'. The team consisted of **Sam Mayo** (project manager), **Nick Chamberlain**, **Jarrod Rice** and **James Ao**. The team was supported by their GSITMS supervisor **Grant Meredith**.



During 2008 the team had worked with their client **Steve Fawcner** of Melbourne based Infinite Interactive and had collaborated together to create a game and concept called *Battle Scarred*. Battle Scarred is essentially a turn-based strategy game with a card based combat system and has been described as fresh and addictive.

The team handled themselves admirably by hosting their game stall and marketing GSITMS and related courses to all interested parties. They were very professional in the way they conducted themselves amongst gaming professionals including CEOs of international companies.

The competition itself was ‘fierce but friendly’ with large teams competing from fully dedicated multimedia and games schools from Australia and New Zealand who were a little shocked to see UB participate with its entry (the only one that was accepted from a university and also from Victoria).

The result was extremely close with *Battle Scarred* making the official final three and unofficially missing out on the top spot by one single vote to the game *Debug* created by a team of 8 from QANTM

Brisbane. The team was not disappointed. As they had performed strongly they had lifted the reputation of GSITMS and had made people take notice of their achievements and skills.

Some true fans of *Battle Scarred* were from impressive backgrounds. These included **Jay Wilbur**, Vice President of Business Development (*Epic Games*), **David Hewitt**, Creative Director (*Tantalus Media*) and **Rob Murray**, CEO (*Firemint Games*).

*“We created friendships with head lecturers from QANTM College, Charles Sturt University and AIE Canberra, as well as programmers, artists, and designers from developers such as Halfbrick Studios, Torus Games, Pandemic Studios, Infinite Interactive and Krome Studios. Being a finalist in the GDA Annual Games Awards and exhibiting at GCAP has given us a large number of contacts within the local industry, and exposure on a national and international level for both our game and UB” - Grant Meredith*

The whole experience was ‘mind blowing’ for the student team. They were highly appreciative of the encouragement of HOS Professor Sid Morris and GSITMS generally in supporting their journey and entry. The School has now made many more contacts with industry leaders and they all seemed very keen to know more about what is happening in the Games area of GSITMS and to encourage growth in this area. By the feedback Grant Meredith has received from industry it is very clear that UB gaming students are emerging as strong candidates for many upcoming gaming positions. The competition game itself was extremely well received and two companies noted that they were very keen to negotiate its future development.



For the two students who have now completed their gaming degrees with GSITMS the future looks bright, with both recently being interviewed by their “client” with a view to employment. The future of *Battle Scarred* also looks promising with the client possibly developing it in 2010 for world-wide release. Steve has indicated that he is looking forward to working with another possible project team for this year (2009).

## Comings, Goings and Doings

### GSITMS' efficient School Secretary



In March 2005 **Rebecca Davis** joined the then ITMS as its School Secretary. She initially joined UB in July 2000 on a Traineeship in the School of Nursing. Rebecca had a previous background in the food handling industry and in retail. Rebecca

successfully completed further studies in UB's Diploma of Business Administration in 2006.

Her present position in GSITMS makes Rebecca the primary 'point of contact' for staff and visitors. Rebecca does this whilst always maintaining a characteristic radiant smile. She relates well to, and enjoys working with, staff of all ages and backgrounds. In 2008 Rebecca attended the annual *Ballarat Grammar Expo*, the *Go Girls for IT Expo* at Deakin University and the UB Open Day where she was able to liaise with many potential students. Rebecca's busy School Secretary role also includes providing assistance with School enrolment events.

Rebecca also plays a role in the administration of examinations where tasks include allocation of supervisors to exam venues, the preparation of internal examination documents and the entering of student results. Each Semester Rebecca coordinates the preparation of students' scholarship cheques. She provides administrative support to School staff, including drafting of reports and correspondence when required. Rebecca is the key organiser of Staff International Business Travel, manages the rental of the Greenhill Enterprise Centre apartments and ensures the proper maintenance of School office equipment.

For 2009, Rebecca's academic ambition is to complete the course 'Digital Image Manipulation' as part of the BIT course which will enhance her skill base. Some career highlights have included assisting at a Secondary School Expo held in Adelaide and organising a MIT Graduation Ceremony in Melbourne. Rebecca's personal aspirations include the ownership and management of her own business as an 'image consultant'. Visitors to her office will notice, she is passionate to experience the therapy that good music in the workplace can provide—*"It is what gets me through each & every busy day"*.

### Sandra's long and successful road



**Sandra Herbert** initially joined UB as a sessional lecturer in 1990. She had previously completed a Bachelor of Science and a Diploma of Education. Working for more than ten years as a secondary school mathematics and computer studies teacher

she moved to Ballarat. Sandra began teaching at UB with the then School of Computing and Mathematics teaching Nursing students clinical arithmetic. She was a founding teacher in the Foundation Access Studies course. Sessional teaching provided flexible work arrangements while pursuing a career in the home-education of her three children.

Later, Sandra completed a Master of Education with ACU and joined ITMS as a full-time academic member of staff, teaching a diversity of material across the school. Particular interests include the education of international students, lifelong learning and the preparation of pre-service mathematics students. Sandra is especially enjoying her new role in UB's Early Career Teachers Program and has a deep commitment to improvement in the quality of teaching and learning in a variety of situations.

Currently, Sandra is nearing the completion of a PhD which investigates the conception of rate held by pre-calculus students. Thus far, she has published around six papers in refereed journals and conferences. She has also served on UB's Promotions and the Nursing Courses Committees.



Sandra lives with her husband Mike who works at Sovereign Hill and Melodee, the last of her home-educated children. The older two children, Smiley

and Sunshine, are pursuing studies at UB in Melbourne. For recreation she enjoys family gatherings, playing music and gardening. The Brewer's Own Bush Band consists of Herbert family members supplemented by a banjo player. In addition, she engages in a wide range of community activities including membership of Friends of Sovereign Hill, Haddon Community Concert Band, Snake Valley Mission Group and the ministerial Home Schooling Advisory Committee.

## CIAO Chat About This and That

### Alex Rubinov honoured through Annual Memorial Lecture

*“Alex was a man of remarkable character, high intellectual ability and great dedication”*

Deputy Vice-Chancellor **Professor Wayne Robinson**



The inaugural (free) public lecture to honour the memory of the Founding Director of CIAO, the late **Alex Rubinov** was appropriately delivered in fine style by the colleague who first introduced and welcomed Alex to UB, **Professor Barney Glover**, Vice-Chancellor of Charles

Darwin University, NT. Professor Glover recalls that he had to intervene with the Australian Authorities in 1996 to allow Alex to board a plane from his (then) home in Israel to travel to UB in Australia explaining that “...you do not have to be a fluent English speaker to undertake mathematical research”!

Under Alex’s leadership CIAO became a research institute of international repute. CIAO is recognised for its theoretical and practical research of sophisticated mathematical and IT solutions to a broad range of industry problems.

Professor Glover’s lecture entitled “*Finding the best solution: Innovation, Education and Mathematics*” skilfully drew on his intimate knowledge of Alex, administrative challenges for regional Universities, with just a touch of national University ‘politics’ thrown in. Professor Glover foresaw the development of more widely based academic collaborations (mission based ‘compacts’ with multi-disciplinary mathematics teaching) which would demand significant curriculum reform in the teaching of mathematics. The audio of Professor Glover’s lecture is available on iTunes at:

<http://deimos.apple.com/WebObjects/Core.woa/Browse/ballarat.edu.au>

### Collaboration with Chongqing Normal, Tshinghua & Beihang Universities.

The first week of CIAO Director **John Yearwood’s** recent China trip with colleagues was funded by Chongqing Normal University under a Chinese government scheme for supporting research collaboration. John’s presentation (*Some optimization-based algorithms for the classification of DNA sequences*) to the staff and students of CNU, prompted many

questions on data mining and optimization. John gave a further presentation to the School of Foreign Studies on Australian Culture and then met with nine CNU mathematics students interested in doctoral study at GSITMS. “*There are some good students there (with publications). One student was outstanding and also has good English but would need to take IELTS.*”

In Beijing Professor Yearwood met with Associate Professor Liu from the Research Centre for Future Internet Technology, Tsinghua University. After his presentation on CIAO’s work they discussed possibilities for collaboration.

John later met with Professor Lieu from Beihang University and visited their laboratories and talked about their security devices. There are some good possibilities here because they have the ability to develop and commercialise rapidly. They agreed that a China Australia grant in the application of optimization to their work is a good next step.

### CIAO hosts eminent visitors

Over the past few months CIAO has hosted a number of overseas colleagues, both promoting international collaborations and supporting the transformation into a Graduate School. Visitors have included:



**Professor Juan Enrique Martinez-Legaz**, full Professor at the *Universitat Autònoma de Barcelona*, Spain, and an expert in the areas of optimization, nonlinear analysis and their applications in economics.

**Professor Maxim Todorov**, originally from Bulgaria, has spent the last ten years working at the University of Puebla, San Andres, Mexico, and is currently on 12 months sabbatical leave. His research focuses on optimization (semi-infinite and vector), functional analysis and linear algebra. This visit marks the beginning of what is hoped will be a strong collaborative relationship.



**Mr Adrien Ugon** works at the Pierre & Marie Curie University, Paris, France, and came to UB in early December 2008 for a two month stay in order to continue work on a sleep apnea project with **Dr Julien Ugon**, **Dr Nadia Sukhorukova** and **Dr Andrew Stranieri**, which involves analysing extensive data that has been provided by Tenon Hospital in Paris.

## UB's December Graduation

### A 'serious celebration'

"IT does matter, when IT professionals learn to communicate effectively, in terms their business understands, and about outcomes that are meaningful to their business. IT does matter, when IT professionals are able to embrace organisational strategy, see the bigger picture and make it part of their technology plan." – Darren Holland

The final Graduation Ceremony as ITMS in December 2009 included some 177 graduates in 15 courses (three PhDs and over 100 Masters Degrees-MIT/MIS). This event had both elements of celebration and a more serious side as the future job prospects for IT professionals were canvassed.

Both the Occasional Address given by UB's Pro-Vice-Chancellor **Mr Darren Holland** and the Graduate Speaker's response by **Mr Prakash Karappurath** (see Pg 3) struck a positive note. Darren told the graduands his fascinating story.



"I have come in a round-about way to deliver this occasional address, as my usual role in these matters, is to take my place quietly on the stage and observe proceedings as they pass. I would like to talk briefly about my round-about career path to the UB, and the role IT

has played in it for me. I will make some observations about skills useful to a technical professional and provide some specific advice about the role of IT in an organisation.

"As a new graduate from QUT with an Applied Science degree majoring in quantitative ecology (with a sub major in computing), one of my lecturers noted that there was 'a need for computer literate scientists'. This comment inspired me to pursue a round-about series of conversations that almost started my research career. IT, and occasionally Science skills got me most of my early jobs, I also collected a number of other formal qualifications, with post-graduate studies in Computer Science, Education and finally an MBA.

"Where my round-about jobs and broad range of qualifications has really led to, is a diversity of skills. Diversity in my understanding of broader business imperatives, the role of a technical professional, and

importantly, how technology and services both support and enable a business in areas outside of the machine room, or the technical floor.

"In my current role I lead a portfolio that provides most of the physical and virtual services, and infrastructure support to UB. Although these areas may seem far from an IT or Information leadership role, many of the skills are much the same - even some of the more technical ones. Skills like project and resource management, quality management, client engagement and relationship management, and the understanding of the need for review and continuous improvement are all critical for any service area to get right - especially when applied across diverse functional areas.

"Apart from technical skills there are a range of other skills that an IT or technical professional should seek to develop as part of fostering a diverse personal experience portfolio. These are skills you would have touched on, probably learned about and no-doubt applied as part of your studies.



"Often IT and technical professionals focus on deep discipline skills, and while this will stand you well early in your career ultimately, it may not be your technical ability that you will be using years from now. Thus, I challenge you to consider three areas of diverse skills to explore **Communications skills; Seeing the big picture**, and **Self awareness** skills.

"Hopefully I have given you reason to reflect on how a diversity of skills and experience can be an actuator of your own career, and of your role in the workplace. IT and technology generally are seen as an enabler of business and innovation, following and supporting business led and defined objectives. However, IT does not always have to take the backseat to business drivers. IT and technical professionals, with technical depth and practicing the diverse skills I have described can play a role in leading or coaching business innovation. Where this occurs it is almost always because the professionals have built open and effective communication lines with their business partners, have a firm trust relationship through understanding the business, and speak the language of the business, not the language of technology. I trust you will all aspire to similar levels of engagement in your lives and work, and trust you will aspire with all the aplomb of a UB Graduate.

### *The establishment of the GSITMS*

## **A fine (and first) Graduate School for UB**

"UB is delighted that the proposal for a Graduate School of Information Technology and Mathematical Sciences has received the approval of the Academic Board and the University Council," said **Professor David Battersby**, Vice-Chancellor. This is the first Graduate School of its type in Australia, operational from January 5, and will position the University well in terms of attracting postgraduate research students, international scholars, and industry partners for a range of research projects."

"**Professor Sid Morris**, the Head of the Graduate School, and his staff are to be congratulated for pioneering this initiative and for ensuring that the new School will continue to be at the vanguard of best practice in learning, teaching and research."

In his proposal to create the Graduate School of Information Technology and Mathematical Sciences (GSITMS), Professor Morris argued: "The British university educational system, which Australia inherited, has served UB well and is an excellent foundation for the future. It is our intention now to forge ahead by enriching it with the best from the educational systems of Europe, and of North America. This will result in the creation of the *Graduate School of Information Technology and Mathematical Sciences*, the atmosphere of which will be one of uniqueness and excitement. The new School will operate as an internationally renowned drawcard for world-leading excellence in teaching - especially at the graduate level - and for research and research training."

"A fundamental principle in GSITMS will be that Teaching and Research have equal importance, irrespective of whether the teaching involves undergraduate, postgraduate coursework or research higher degree students."

"Students of GSITMS will be impressed by the international focus. The centrepiece of GSITMS will be innovative research degrees that offer students an education characterised by engagement with organisations in the region, collaborations with institutions across the world, and mentoring by leading mathematicians and informatics researchers.

GSITMS will offer high quality undergraduate degree programs with a small number of

specialisations and a rich and flexible learning environment. About two thirds of the students in GSITMS will be postgraduates. The undergraduate degree programs offered will lead naturally into coursework and research graduate degree programs."

"GSITMS will offer the two year masters degree programs, (MIT and MIS), for students who have a first degree in an area other than computing. The School has already established itself as one of the largest and best providers of IT education in Australia at this level."

"GSITMS will also offer two year Master degrees for those who have a Bachelor degree with a double major in computing (Master of Information Technology Management and Master of Information & Communication Technology). Two Master degrees by Research will be offered (Master of Mathematical Sciences and Master of Computing)."

"GSITMS will offer a Professional Doctorate which will be easily differentiated from Research Doctorates by the substantial amount of advanced coursework study required. The course will be tailored to the individual student depending on her/his experience, needs and wishes."

"A major goal of GSITMS for 2015 will be to have 50 research students from across the world doing a truly international program."

"Research in GSITMS will continue to be done through CIAO. This Centre will provide the firepower in mathematics, statistics, and computing for interdisciplinary research across UB. The terms basic, strategic, theoretical, applied, international, and regionally-relevant will all apply to aspects of research done in CIAO."

"GSITMS will succeed in a competitive educational environment by offering a uniquely international program that is not available elsewhere, while other Australian institutions continue to compete by providing variations of similar offerings."



*GSITMS will build on the current strengths of ITMS and UB by incorporating the best of the British, North American, European and Australian educational systems.*

## NewsFlashNewsFlashNewsFlash

### Plaudits go to GSITMS Staff



Over 60,000 nominations of Australian University academic staff were received for the 2008 'Lecturer of the Year Awards'. **Grant Meredith** was UB's clear winner (see story on page 5). When asked the secret of his success, Grant modestly said "...just to be human and get along with people".

Staff and students also performed extremely well at UB's Annual Research Conference in November 2008. The Award for the Most Outstanding Full Conference Paper went to **Armita Zarnegar**. Prizes for Best Oral Presentations went to **Sandra Herbert, Alex Kuznetsov, and William Harvey**.



Finally, **Dr Charlynn Miller** (see her profile in the Spring 2008 edition) has been elected Chair of UB's Higher Education Curriculum Committee.

### Achievements we've had a few

Among **Professor David Battersby's** end of year (2008) highlights were a number of special interest to GSITMS alumni. These included:

- ✓ The **Internet Commerce Security Laboratory**;
- ✓ The initial **Alex Rubinov Memorial Lecture**;
- ✓ UB received **two five-star ratings** in the Good Universities Guide for 2009: for cultural diversity and non- government earnings;
- ✓ The Premier announced the development of a **new IBM Service Centre** for UB's Technology Park, leading to the creation of about 370 new jobs;
- ✓ A new **Graduate School** of Information Technology and Mathematical Sciences was approved by the University Council.



Vice-Chancellor Battersby commented "Our motto is that we *Dare to be Different* and we will continue doing so to emphasise that our vision and mission as a University are sufficiently distinctive and strong to sustain us into the future".

### Higher Education Review

In December 2008 the Deputy Prime Minister the **Hon. Julia Gillard** MP released the final report of the much anticipated 271 page Review of Australian Higher Education.

A major report thrust is for a 'demand driven' system which would see universities being able to enrol as many domestic students as they wish and receive corresponding support for each student via a 'voucher'. Prof. Battersby noted however that the review acknowledges that any demand driven voucher system does have its risks and limitations. These include the potential for such a system to impact rapidly on some campuses in terms of their student numbers and the risk of mis-alignment between students' choice of courses and workforce needs.

### Skilling up of the IT sector

**John Ridge AM** and Past President of the ACS believes that traffic on the 'information superhighway' will stall unless Australia steps up training in the IT sector. During his presidency he set up the *ACS Foundation* to raise funds in the private sector for university scholarships and research into IT. Director of the foundation since 2005, John has raised more than \$17.5M, awarded more than 1,200 scholarships, and cultivated achieving students.

*"Under the scholarship scheme, students get relevant work experience while undertaking undergraduate courses. Often they walk into jobs with the sponsoring company, in fields ranging from programming, analysis and web development to business intelligence. As long as all the donors take a responsible attitude there won't be a skills shortage"* (It's an Honour – November 2008).