



Computer Science Association of New Zealand
<http://www.cs.waikato.ac.nz/csanz>

Newsletter

November 2008
 Number 13

NZCSRSC 2009

NZCSRSC '09 is coming to Auckland!!

We are proud to announce that the NZCSRSC will be held at the University of Auckland from 6-9 April 2009. Preparation is already well underway to make NZCSRSC '09 a conference to remember! Our team is really excited to be organising this event and we are working hard to make this another successful conference.

So what is the NZCSRSC? If you are a Computer Science Research Student in New Zealand then this Conference is especially for you, a conference for students, run by students. It is a chance for you to meet others from around the country, share your research and learn about what others are working on. It's aimed at getting us out from behind those computer screens and putting us face to face with the cutting edge of Computer Science research in NZ and the research students who are behind it all. It's also a great chance to build friendships among our research community that will last long after we have all (finally) finished our degrees. Students are encouraged to get involved by submitting their research papers and reviewing work by their peers. At the conference students will be showcasing their research during formal presentation and poster sessions, participating in workshops, and enjoying a number of exciting invited keynote presentations, along with fun social events.

For those of you who have been to this conference in the past, most recently at the University of Canterbury, we know that you need no convincing of what a great experience attending the NZCSRSC is. We can't wait to see you once again and catch up on your latest work, but this time here in Auckland!

The call for papers has already gone out to universities; you can also view this on the website. The submission deadline is 2 December 2008 so if you haven't already started your paper, get writing and tell the CS research community all about what you're working on. For more information see your local university contact (contact information is on the website) otherwise general queries can be made to Rachel or Carl.
 More info: <http://www.nzcsrsc09.auckland.ac.nz/>

Rachel Blagojevic

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Conference Co-ordinators
 NZCSRSC'09
 University of Auckland

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Victoria

News

New School of Engineering and Computer Science

In January 2009, Computer Science will move from the School of Mathematics, Statistics and Computer Science and into a new School of Engineering and Computer Science - joining with the other engineering staff currently in the School of Chemical and Physical Sciences.

The new school will facilitate the continuing development of Engineering and Computer Science at Victoria, and enhance the collaboration between computer science, software engineering, network engineering, computer system engineering, and electronic engineering. **John Hine**, who is already Dean of Engineering, will head the new school.

Australasian Computer Science Week (ACSW) 2009

Victoria is hosting the Australasian Computer Science Week (ACSW) 2009, which will be held during the week of 19 to 23 January in 2009 at Te Papa. ACSW is an international multi-conference event for Computer Science professionals, researchers and students, and occurs under the auspices of the Computing Research and Education Association. ACSW 2009 includes the Australasian Computer Science Conference (ACSC), the premier generalist forum for Computer Science Academics from Australia and New Zealand. **Alex Potanin** and **John Hine** are co-chairs of the organising committee. We hope to see many Computer Scientists from around New Zealand in Wellington in January!

More info: <http://www.mcs.vuw.ac.nz/events/ACSW2009/>



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Appointments

Hui Ma joined the staff in August 2008. Hui works in the area of database systems and conceptual modeling. She completed her PhD at Massey University this year.

Mengjie Zhang has been promoted to Associate Professor.

Andy Linton has been appointed as a Teaching Fellow in Network Building and Management, Internet Governance.

David Pearce has been promoted to Senior Lecturer.

Sue Hall has joined the staff as ECS School Manager.

Ally Reid has also joined the staff as part-time ECS Administrator.

Awards and Scholarships

James Noble has been awarded “Most Influential Paper For Ten Years” from the Australian Software Engineering Conference for his previous work on object-oriented programming at Microsoft Research in Sydney and the ACM Sigplan Most influential paper award for OOPSLA 1998 for his paper “Ownership Types for Flexible Alias Protection” with **David Clarke** and **John Potter**.

James Noble has also been awarded a BuildIT Postdoctoral fellowship, which will support Nick Cameron (currently finishing his PhD at Imperial College, London) to work at VUW for two years. Nick is due to join us in early May 2009.

Mengjie Zhang and **Alex Potanin** were both awarded Marsden Awards this year. Mengjie has a \$465,000 grant for Genetic Programming for Classification Tasks. Alex has a \$300,000 Fast-start grant for Unification of immutability and ownership.

Faisal Nabi has been awarded a BuildIT PhD scholarship. Faisal is working under **Ian Welch** and **Peter Komisarczuk** on frameworks for secure business application logic in distributed e-commerce systems.

Masters Theses

Thomas Roehr—*Control of a hierarchical team of robots for urban search and reuse.*

Donald Gordon—*Encapsulation Enforcement with Dynamic Ownership.*

Phillip Wong—*Removing Redundancy and Reducing Fitness Evaluation Costs in Genetic Programming.*

Craig Anslow—*Evaluating X3D for Use in Software Visualisation.*

Jennifer Ferreira—*Interaction Design and Agile*

Development: A Real-World Perspective. .

Chris Male—*Mocha: Type Inference for Java.*

PhD Theses

Matthew Duignan—*Computer Mediated Music Production.* Matt is now working with Microsoft on Windows 7.

Pippin Barr—*Video Game Values: Play as Human-Computer Interaction.*

Rilla Khaled—*Culturally-Relevant Persuasive Technology.* Pippin and Rilla are enjoying postdoctoral fellowships with **Robert Biddle** at the HOT lab, Carleton University, Ottawa.

Peter Andrae

Canterbury

News

CSSE Teams' Successes in Programming Competition

Two teams from the Canterbury CSSE department have done very well in programming competitions recently, and one of the teams will be representing NZ at world finals in Stockholm.

The teams are:

Team JET (**Joey Scarr**, **Edwin Flores**, **Thomas Steinke**) and Cantercoders (**Michal Connole**, **Stephen Fitchett** and **Janina Voigt**)

In the NZ Programming Contest, Cantercoders took first place in the Tertiary Open Category, and Team JET was fourth.

In the ACM South Pacific Regional Programming Contest 2008 the top NZ place went to Team JET, who also came second in the entire region (Australia and NZ).

Cantercoders took second place in NZ, and fourth overall for the region.

More info:

<http://nzprogcontest.org.nz/Results/2008/NZPCResults2008.htm>

<http://www.sppcontest.org/2008/Results/summary.html>

More info about the contest appears at:

http://en.wikipedia.org/wiki/ACM_International_Collegiate_Programming_Contest (24 September 2008.)

Awards

2008 Anita Borg Memorial Scholarship.

Google announced their Anita Borg Memorial Scholarships for the 2009 academic year. Two scholarships were awarded for Australasia, and both went to New Zealand students. Of the two, the only undergraduate to get a scholarship was



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Janina Voigt, from CSSE at University of Canterbury. The scholarships “aim to encourage women to excel in computing and technology, and become active role models and leaders”.
More info: <http://google-au.blogspot.com/>

CSSE Student Granted BuildIT Travel Award.

Sayan Ray, a PhD student of our Network Research Group, has been granted a BuildIT travel award for PhD students, for his participation in the International Conference on Access Networks, to be held in Las Vegas, USA, 15-17 October 2008. Sayan presented a research paper on “A fast MAC-layer handover for an IEEE 802.16e-based WMAN”.

Tadao Takaoka was awarded the Royal Society of New Zealand ISAT fund for academic exchange with Germany.

Krys Pawlikowski and our research groups on networks and simulation have been awarded a REANNZ grant, to establish PlanetLab in New Zealand and to use it in their research on new network services and technologies.

Visitors

David Ahlstrom, Klagenfurt University, Austria.

Farzana Yasmeen, (PhD student), National Institute of Informatics, Tokyo, Japan.

Tim Bell

Waikato

News

Hopscotch with a difference

Inspired by the NZCSRS 2008 Conference CSUnplugged Workshop, **Te Take Keegan** took Fraser High School students visiting the university for a campus experience day out of the lecture theatre to find out what sorting networks are all about. Working in teams of six, each student took a number on a card and then the team sorted themselves out into numerical order by following the paths chalked out on the ground – just like hopscotch – and exchanged information at each node. Another guessing game exercise involved swapping black and yellow squares in a matrix. “Unplugged” exercises like these, devised by **Tim Bell** from the University of Canterbury, are used to teach the fundamentals of computer science without ever touching a computer.

Tribute book puts tutor into design finals

In most workplaces, retiring employees leave clutching a large farewell card and a gift paid for by the whip-round. When computer design lecturer Trevor Morris retired from Waikato University, he walked out with a tribute book that has since been selected as one of the country’s top design works.

The designer, **Alice Lo**, a senior tutor in the University’s Computer Science Department, created a book of Trevor’s teaching life. Contributions in the form of single-page designs were collected from dozens of Trevor’s former students who remembered him with much fondness.

The book was a finalist in the graphic design arts section of the Best Design Awards announced in October. These awards are the Design Institute of New Zealand’s annual national design awards, which aim to recognise the country’s best spatial, product and graphic arts. Hundreds of designers enter the awards and previous winners have included yacht designer Bruce Farr and inventor John Britten.

Two gold medals were awarded in Alice’s category – to Alt Group for a CD cover for New Zealand music, and for their work to promote law firm Hudson Gavin Martin. There were 18 finalists in the division, with the balance receiving either a silver or bronze medal. Alice’s book received a bronze.

More info:

<http://www.waikato.ac.nz/news/index.shtml?article=814>

Degree Show

The Computer Graphic Design students have recently finished showing off all their work. The degree show is a culmination of their three years work, the exhibition is a semester long project designed to help them demonstrate their range of skills and produce a final piece of work to use to sell themselves in the industry. During the five days on show to the public many people from the community came to the exhibition at the WEL Energy Trust Academy of Performing Arts on campus, including industry employers and both secondary and tertiary students. Twenty-seven students in total exhibited work, including twenty-five degree students and two honours students. The projects created by the students covered a wide range of topics and skills sets, each one unique and creative. Some of the projects were a bug cave with an interactive for learning about bugs, a touch screen device for comparing forum for web designers.

More info: <http://www.degreeshow.co.nz>

The Department’s networks research group (WAND) is inviting participation from members of other departments who are interested in computer networks. In particular, you can join our meetings (which mostly happen on a Friday at 5:30) by video conference. Meetings are announced on the nzcomms mail list. Join nzcomms, or for details about how to join the meetings, contact Tony McGregor.

More info: tonym@cs.waikato.ac.nz

Software Freedom Day 2008

The Waikato Linux User Group (WLUG) and the Computer Science Department of the University of Waikato hosted the Software Freedom Day in Hamilton this year.



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The free software movement is built on the idea that software should be free to all. Everybody should be free to contribute to its development, use it for any purpose, modify it, improve it, extend it and adapt it for their own use. Any modifications should be shared under the same terms. This returns control of the computer and its information to the user and provides quality software to all users at no cost!

This was a celebration of the best in free open source software. Free CDs loaded with software were available, plus Ubuntu Live CDs for trying out Linux at home without reinstalling! Draws were held through the day to give away USB memory sticks preloaded with Ubuntu Live and other software. Many guest speakers presented on a wide range of topics. Interest from the general public was quite high and every one was pretty pleased with the interest level and outcomes from the day.

Appointments

Geoff Holmes took up the position of Dean of the School of Computing and Mathematical Science on 1 October. He has been head of the Computer Science Machine Learning Group for many years.

In the interregnum, **Stephen Joe** very ably filled the role of Acting Dean and has now taken up the position of Deputy Dean having been Chairperson of the Department of Mathematics for the previous two years.

Sally Jo Cunningham became Head of Department from 1 July 2008, taking over from Tony McGregor.

Eibe Frank has been promoted to Associate Professor. His main interests are machine learning techniques for data mining and text mining.

Angela Martin, who commenced her study at UOW has returned to the Computer Science Department as a lecturer in November. Angela has spent the last 14 plus years as an industry consultant, most recently in London. Angela recently submitted her PhD thesis entitled "The Role Of Customers in Extreme Programming Projects" to Victoria University in Wellington. She teaches the Agile Methods course within the Software Engineering Programme at Oxford University and has recently completed serving a two-year term on the Agile Alliance Board of Directors.

Awards and Prizes

KUDOS

The Digital Library Research Group, headed by **Ian Witten** and **David Bainbridge**, won the Information and Computer Technology Science award for the development of a unique software program called Greenstone that can create searchable

digital libraries. The software is free and downloaded 200 times a day by people and organisations all over the world. It has particularly helped organisations in third world countries by compiling a vast amount of searchable information onto CDs, saving them the cost of buying huge libraries of books.

Best Paper Award, ACM Conference on Information and Knowledge Management (CIKM) in Napa Valley, C.A., October

PHD student **David Milne** has won the Best Paper Award for the paper "Learning to Link with Wikipedia", by David Milne and Ian H. Witten

More info: <http://www.cikm2008.org>

BuildIT Research Publicity Prize

In August 2008 Ian H. Witten and his PhD students were awarded the BuildIT Research Publicity Prize, which is awarded annually to a researcher, or research group, for the top ICT research publicity in the category of pure research; they also received the Top ICT Research Publicity Prize for the best entry in all three categories.

Best Demo Prize

Awarded in June 2008 to **David Bainbridge** from the ACM/IEEE Joint Conference on Digital Libraries in Pittsburgh, USA, for his paper entitled "Running Greenstone on an iPod".

Scholarships

Google Australia/New Zealand Anita Borg Scholarship for Women in Technology

Andrea Schweer was awarded one of the two 2008 Google Australia and New Zealand Anita Borg Memorial Scholarships whose aim is to encourage women to excel in computing and technology, and become active role models and leaders. Her PhD project is on "Context-Aware Augmented Memory". (The other prize also went to a New Zealander; see Canterbury's entry above).

This is very competitive and to be a finalist let alone a recipient is a great achievement. Two other finalists were from Waikato:

Olena Medelyan—Semantically enhanced automatic key phrase indexing

Shaoqun Wu—A language learning digital library

All three attended a retreat at Google Sydney in September.

More info: <http://www.google.com.au/anitaborg/>

BuildIT PhD Travel Scholarship

Anthony Blake—International Workshop on Embedded Computer Systems: Architectures, Modelling, and Simulation.



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Scalable Architecture for prefix preserving anonymization of IP addresses

Anna Huang—IEEE International Conference on Data Mining 2008.

Clustering document with active learning using Wikipedia

David Milne—ACM Conference on Information and Knowledge Management, Napa Valley California, USA.

Learning to link with Wikipedia

Veronica Liesaputra—Joint Conference on Digital Libraries, Pittsburgh, Pennsylvania, USA.

Seeking information in realistic books: A user study

BuildIT PhD Scholarship

Michael Walmsley

Waikato Graduate Women Merit Study Award for Doctoral Study

Shaoqun Wu—*A language learning digital library*

Internships

Google Mountain View, California

Veronica Liesaputra, January-April

Google New York

Olena Medelyan, October-December.

EML Research Heidelberg

David Milne, September-October

Anna Huang, October-November

Veronica Liesaputra, November-December

Seminars

Stephen Downie, Graduate School of Library and Information Science, University of Illinois at Urbana-Champaign and Director of the International Music Information Retrieval Systems Evaluation Laboratory. May.

Introducing the networked environment for music analysis: Phase 1

Ajay Kapur, Music Technology Director, California Institute of the Arts. July.

Twenty First Century raga: digitizing North Indian music

Murray Pearson, School of Computing and Mathematical Sciences, University of Waikato, Hamilton. August.

ICT and sustainability

Mark Billinghurst, Director, Human Interface Technology Laboratory (HIT Lab NZ) University of Canterbury. August.

Next generation augmented reality

Richard Stallman, Founder and President Free Software Foundation. August.

Copyright vs Community

More info: <http://www.hamiltoncomputerclub.co.nz/stallman/>

Dmitry Lizorkin, Researcher Institute for System

Programming of the Russian Academy of Sciences, part-time lecturer Moscow State University, Senior Developer Texterra Project, Russia. August.

Text analysis using Wikipedia knowledge base: Texterra experience

Ken Moody, Leader, Opera Research Group, University of Cambridge U.K. October.

Event-Driven Database Information Sharing

Other Visitors

Luís Torgo, University of Porto, Portugal. February-July

Edgar Chavez, Universidad Michoacana de San Nicolás de Hidalgo, Mexico. April-June

Alanna Fitzgerald, Concordia University, Canada.

April-June 2008

Wendy Osborne, University of Lethbridge, Alberta, Canada. May-June 2008

Joaquin Vanschoren, University of Leuven, Belgium.

February-May 2008

Stefan Rueger, Director, Knowledge Media Institute, Open University, U.K. November-February

PhD Theses

Catchpole, Jason—*Adaptive vision based scene registration for outdoor augmented reality*

Jansen, Sam—*Network simulation cradle*

Keegan, Te Taka—*Indigenous language usage in a digital library: he hautoa kia ora tonu ai*

Masters Theses

Bennett, Erin—*Re-designing Greenstone for seniors*

Foulds, James—*Learning instance weights in multi-instance learning.*

James has gone to do his PhD with the machine learning group at the University of California, Irvine.

Hsieh, Ping-Ju—*Administration service for the Tourist Information System (TIP)*

Lincoln

News

In October the University released draft plans for restructuring. While the full implications are yet to be formally announced, the Applied Computing group is very pleased that the University recognises the need to retain the independence and visibility of our academic programme. The biggest impact of the restructure on our group is likely to be a change in nomenclature only, to the Applied Computing department!

Stuart Charters has taken on the role of “KAREN Champion” for Lincoln University and is working with a variety of research projects around campus to promote and increase the uptake of eResearch.



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Four Computing students presented at the Lincoln University Postgraduate Conference in August.

Compared with last year the University hosted twice the number of overnight on-campus visitors for the Open Day on 17 July 2008. A good number of the visitors expressed interest in studying computing. Throughout the year Applied Computing staff have also welcomed several visits from individual Secondary School groups specifically interested in Software and IT.

We have been recording all of our undergraduate lectures (screen and voice). In an effort to afford students entering the B.S.&I.T. a head start if they want it, **Clare Churcher** will be trialling a “do-it-yourself, with help” offering the first year programming course in November summer school. Students will be provided semester one’s lecture recordings, as well as manned lab sessions for individual help. It is hoped that this will encourage more students into computing.

In May, Lincoln launched a Carbon Calculator for New Zealand Agriculture and Horticulture on the University website. **Walt Abell** supervised the development in conjunction with Lincoln’s Agribusiness and Economics Research Unit and AgriLink New Zealand. The same group will be bidding for a contract to develop a similar tool for the New Zealand Ministry of Agriculture and Fisheries.
More info: <http://www.lincoln.ac.nz/carboncalculator>

Award

Congratulations to **Maka Mukoki** who earned both the HP NZ Award for Excellence in IT and the JADE Prize for excellence in software engineering. Maka’s achievements have been outstanding, with two small children and her degree begun in distance mode (whilst unwittingly nurturing appendicitis!), she is now an exceptional and welcome addition to industry.

Teacher Fellowship

Shirley Gibbs and **Theresa McLennan** have had project approval to host a Royal Society Appointed Teacher fellow in the new year. The project “Problem Solving Techniques with ICT”, aims to enhance the fellows ICT knowledge so (s)he can better add value to school pupils’ learning and be exposed to web technology at the advanced end-user level.

Visitors

Sandy Barker, a Lecturer in Management at the University of South Australia, visited for a week at the end of July. Sandy’s research area is measuring the impacts of end user application development. She is completing a PhD supervised by **Theresa McLennan**.

Conferences

ICITA 2008

Walt Abell travelled to Cairns in June for the International Conference on Information Technology and Applications. He presented a paper entitled “An Evaluation of Interactive Stacked Bar Charts” and has subsequently been invited to submit the paper to International Journal of Computer Applications in Technology.

APAN26

Stuart Charters was one of the New Zealand presenters at the Asia Pacific Area Network (APAN) Conference in Queenstown. His presentation was entitled “Visualisation for the Grid: Helping towards sustainability”.

eResearch Australasia

Stuart Charters presented the paper “Visualization for eResearch: Past, Present and Future” at the recent eResearch Australasia Conference in Melbourne. A KAREN Travel Fund Grant of \$2,500 from REANNZ supported Stuart’s attendance at eResearch Australasia.

IVCNZ08

The International Conference on Image and Vision Computing New Zealand will be held at Lincoln, 26-28 November 2008. **Kenji Irie**, an Applied Computing PhD student and employee of Lincoln Ventures Ltd., is the main organiser, ably assisted by **Alan McKinnon** and **Keith Unsworth**.

The National Institute for Mathematical Sciences 2008 Conference & the East Asia SIAM Conference

Keith Unsworth is co-author of a paper entitled “Rational Generalised Ball Functions for Monotonic Interpolating Curves” that was presented at the NIMS/SIAM conference in Korea, 10-12 October 2008.

Sharon Long

Otago CS

General News

Preparations are well advanced for the celebration of the department’s 25th anniversary in September 2009. The celebration will follow our move into our new integrated location, the Owheo building (at last!).

We have now become a Sun OpenSPARC Centre of Excellence. “A Centre of Excellence is a formalized, documented relationship between Global Education and Research, the educational institution, and the third party. All parties involved in the Centre of Excellence will bring to the partnership a special expertise of strategic importance to Sun.”



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More info: <http://www.opensparc.net/edu/centers-of-excellence.html>

We are preparing to host PDCAT'08 - The International Conference on Parallel and Distributed Computing, Applications and Technologies. This is a major forum for scientists, engineers, and practitioners throughout the world to present the latest research, results, ideas, developments and applications in all areas of parallel and distributed computing. It is to be held from the 1-4 December 2008.

More info: <http://www.cs.otago.ac.nz/pdcat08/>

The previous newsletter should have mentioned the publication of a book co-authored by **Michael Albert**, "Lessons in Play - An Introduction to Combinatorial Game Theory".

The Theory of Computing Research Group successfully hosted the International Conference on Permutation Patterns, in June.

Staff news

System Administrator **Simon Mooney** left in June, to join the University's Information Technology Services.

Honorary Senior Lecturer **Hans van Ditmarsch** returned to the Department in November for two months.

Research Grants

In 2008, the CS department awarded a research grant to **Lubica Benuskova** to carry out a research on "Dynamic Networks of the Brain", together with **Maria Markosova** from Comenius University, Slovakia and **Liz Franz** from the Department of Psychology of University of Otago to analyse the brain fMRI data by means of the graph theory.

Lubica Benuskova and **Alistair Knott** have been awarded a BuildIT Postdoctoral Fellowship award to appoint a postdoctoral fellow for a joint 2-year research project entitled "The sensorimotor grounding of language: a computational model", starting in January 2009.

Lubica Benuskova was also awarded the University of Otago research grant to lead the research on computational and experimental investigation of the rules governing synaptic plasticity in collaboration with **Cliff Abraham** from the Department of Psychology of University of Otago and **Peter Jedlicka** from J.W.Goethe University, Frankfurt am Main, Germany.

Other News

Lubica Benuskova will co-chair the INNS-NNN Symposia (New directions in Neural Networks) 2008, 24-25 November, Auckland.

More info: <http://www.aut.ac.nz/nnn08/>

Lubrica will also be a tutorial chair of the International Conference on Neural Information Processing of the Asia-Pacific Neural Network Assembly 25-28 November, 2008, Auckland.

More info: <http://www.aut.ac.nz/iconip08/cfp.ht>

MSc Theses

Xiangfei Jia—*Network paging*

Lorene Kuratu Mere Earnshaw—*Resources for Te Kākano*

Christopher Leonard Gillum—*Mining Formula One chassis data*

Feng Zhou—*Logistic regression trees*

Damon Andrew Simpson—*Virtual modelling on the Watching Window*

Michael Robert Phillips—*Adapting ray tracing to GPU hardware*

PhD Theses

Simon McCallum—*Catastrophic forgetting and the pseudo-rehearsal problem*

Guillaume Aucher—*Logic and game theory*

Robert Pollock

Auckland

News

Michael Dinneen and the University of Auckland team were the South Pacific Champions in the ACM World Finals of the Programming Contest. They were also in the top 100 out of 7000 teams competing in the competition. The team comprised: **Heather Macbeth**, **Matthew Steel** and **Matthew Gatland**.

Brian Carpenter was invited to present the IET (Institute of Engineering and Technology) New Zealand 2008 Prestige Lecture series, a series of eight lectures across New Zealand during May and June.

Awards and Research Grants

John Hosking received a 2008 National Tertiary Teaching Excellence Award.



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John Grundy gained a BuildIT Postdoctoral Fellowship award of \$118,000.

Reinhard Klette gained \$120,000 from **Hella Aglaia** Germany to establish a PhD scholarship for the .enpeda.. project.

Georgy Gimel'farb was awarded an ISAT one year funding of \$6,500 for his collaboration with **Boris Flach**, Neural Computation Laboratory, The Artificial Intelligence Institute, Faculty of Computer Science, Dresden University of Technology, Dresden, Germany.

Gerald Weber gained an ISAT award from Royal Society of New Zealand. The funding of \$6,000 will develop his collaboration with Prof Rausch at the Technische Universität Clausthal, Clausthal-Zellerfeld, Germany.

Beryl Plimmer won the BuildIT Research Publicity prize for ICT in Education with a NZ Herald article titled "Robot helps blind children find write way".

John Hosking and **John Grundy** won the BuildIT Research Publicity prize for ICT Applied to Industry with a NZ Herald article (and various follow-ups) titled "SMEs pull their software socks up".

The department has three recipients of FRDF funds from the latest round:

John Morris, \$29,737 for the project: "Dynamic object tracking".

Georgy Gimel'farb, \$15,000 for the project: "Image modelling using Markov-Gibbs random fields with multiple third-or higher-order interactions".

Felicity Goodyear-Smith, **Jim Warren** and **Bruce Arroll**, \$128,738 for Feasibility of Electronic CHAT.

Two teams won 2008 Teaching Improvement Grants:

Mark Wilson, **Michael Dinneen**, **Andrew Luxton-Reilly**, \$8,000, "Automated assessment of programming assignments".

Andrew Luxton-Reilly, **Paul Denny** (plus a PI from FMHS), \$7,940, "Providing customised feedback for students in very large classes".

Cris Calude was awarded one of the Leverhulme Trust Grants from the Academia Europa for organising the workshop "Grand Challenges of Unconventional Computation".

A VCSDF award of \$150,000 was won by a team comprising **John Hamer**, **Andrew Luxton-Reilly**, **Paul Denny**, **Beryl Plimmer** and **John Hosking**, for a project on: "Contributing Students: eLearning tools to support collaborative teaching and learning".

Beryl Plimmer, **John Hosking** and **Gerald Weber** gained \$14,000 from the Seelye Charitable Trust Fellowship to bring **Stephen Brewster** to New Zealand.

Bruce MacDonald from ECE in collaboration with many other UoA academics including Computer Science academics **Jim Warren**, **John Hosking** and **John Grundy**, have gained IIOF funding from FRST for their HealthBots project.

Brian Carpenter gained funding from Huawei Networks' research department for consulting on a research strategy.

Cris Calude gained a Hood Fellowship for 2009 to establish cooperation between five of the major European universities working in his field.

Beryl Plimmer gained a BuildIT Early Career Travel Grant of \$4,500.

Appointments and departures

Koray Atalag started as the inaugural Bedogni Fellow on 8 September. Koray is from the Middle East Technical University in Turkey. He holds both a PhD and Doctor of Medicine and works in the field of Health Informatics.

Christof Lutteroth started in a Lecturer position on 7 July. Christof is well known to most in the department from his time as a PhD student and his involvement in our teaching programme.

Hong Yul Yang started in the role of Research Programmer.

John Corey departed from his position as Director of the Center for Software Innovation. **John Hosking** has taken on the role of Director.

Sithra Sukumaar started as Secretary/Receptionist in the city campus.

Visitors

Bruno Grenet
Frank Stephan
Susanne Fischer
Tanya Conte
Frank Rusky
Pao (Medrano) Garcia
Kai Berger
Renee Miller
Jiang Ruyi
Wang Dangling
Antoine Rochette

John Hamer



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Massey

News

In July **Russell Johnson** travelled to Kampala, Uganda to participate in the International Workshop on Technology for Innovation and Education in Developing Countries. He reports that presentations were partly held at Makerere University, which has an impressive array of modern computing facilities, and partly in more rural settings, interspersed with visits to community centres, schools and refugee camps, where we were able to directly appreciate how frequent power brownouts, poor telecommunication infrastructure and low literacy levels require innovative approaches if information technology is to be a relevant and positive force for development.

Stephen Marsland has finished his textbook "Machine Learning: An Algorithmic Introduction", to be published next year by CRC Press (part of Taylor and Francis). He has a postdoc, **Andy Gilman**, just started in the area of image registration, and has received funding (with **Robert McLachlan** and **Matt Perlmutter**) for another postdoc, in the area of geodesics on diffeomorphism groups.

Research Grant

Eva Heinrich has received a grant of \$800,000 from the Tertiary Education Commission under the Encouraging and Supporting Innovation scheme for a project entitled "E-learning support for formative assessment feedback: Improving efficiency to enable increased focus on quality". A substantial component of this project will be the development of open source assignment management and marking software compatible with Moodle.

Sabbatical

Jens Dietrich spent his sabbatical at the Technical University of Dresden, working with **Uwe Assmann** and **Birgit Demuth** on formal contracts for dynamic component models such as OSGi. Some of the results are available as Open Source software.

More info: <http://code.google.com/p/treaty/>

Scholarships

Parul Sharma won the SolNet scholarship for third year students.

Visitors

Ruili Wang is hosting a visit from **Song Xiao**, from Northeastern University, China, supported by the Chinese

Scholarship Council. Mr. Xiao will stay here for two years and is working on modelling complex systems.

Hans Guesgen has a new postdoc in the area of smart environments. **Joe Steinhauer** comes from Linköping University in Sweden and will be with us for 2 years. She joins the Massey University Smart Environment (MUSE) group, which will soon have a proper web presence at <http://muse.massey.ac.nz>.

Stephen Marsland

AUT

News

AUT Radio Telescope Launch

This was held on 8 October and it was a great success. Rodney District Mayor Penny Webster cut the ribbon and set the 12-metre dish in motion. The \$1 million radio telescope, situated in a valley near Warkworth, will be used by AUT's Institute of Radiophysics and Space Research to probe deep space but will also be used for earth science such as studying the movement of tectonic plates.

Undergraduate and postgraduate training in Astronomy

In 2009 the School of Computing and Mathematical Sciences will start offering training in Modern Astronomy. As a discipline it encompasses a vast range of mathematical and computer science applications and complements the existing majors within the Bachelor of Mathematical Sciences.

The new Master of Forensic Information Technology (MFIT) will start in 2009. Forensic IT is the use and application of computing techniques in the analysis of IT systems that may have been penetrated or corrupted maliciously. Such analysis may lead to presentation of evidence for use in courts, legal or other formal proceedings.

Certificate in Computing and Mathematical Sciences is another programme we will offer in 2009. This programme is designed to prepare students to study at degree level.

Appointment and Departure

Terry Byrdon has been appointed as School Manager of School of Computing and Mathematical Sciences.

Senior Lecturer **Terri Lomax** will be finishing at the end of November as she has been appointed Manager, Service Design and Information Management for the Maori Land Court of Justice in Wellington.

International Visitors

Tsugunori Nogura, Dean of the Science Faculty from Ehime University (Japan) visited the Mathematical Sciences



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department and presented a seminar on “Selections for Hyperspaces”.

Don Gotterbarn from East Tennessee State University, visited our school - SCMS in July and attended the NACCQ Conference.

Gerald Cheang from Nanyang Technological University in Singapore, visited our school (SCMS) from 7–22 July.

Books

Parry D. & Parry E., *Medical Informatics in Obstetrics and Gynaecology*, The Medical Information Science Reference

Gotterbarn D., Clear T. & Kwan C., *A Practical Mechanism for Ethical Risk Assessment - A SoDIS Inspection*
Thorpe S., *The use of story in building online group relationships*

Blundell B.G., *An Introduction to Computer Graphics and Creative 3-D Environments*

Blundell B.G., *Computer Hardware*

Duquenoy P., Jones S., and Blundell B.G., *Ethical, Legal and Professional Issues of Computing*

Events

WISE 2008

The International Conference on Web Information Systems Engineering (WISE 2008) was held in September 2008 at the Auckland University of Technology. The goal was to provide an international forum for researchers, professionals, and industrial practitioners to share their knowledge in the rapidly growing area of Web technologies, methodologies and applications. This conference was organised by **Russel Pears & Dave Parry** as the local organizing chair.

More info: <http://wise2008.mucoms.org/>

Upcoming Conferences

AI-2008

The Australasian Joint Conference on Artificial Intelligence (AI 2008) will be held for the first time in Auckland, New Zealand from 3–5 December 2008. The conference will be organised by **Wai (Albert) Yeap** as Conference Chair, **Jochen Schmidt** as Workshop & Tutorial Chair and **YunSing Koh** as Local Organising Chair.

For more information: <http://www.ai08.org/index.htm>

Research & Conference Grants

Wai (Albert) Yeap has just been awarded \$50,000 PSAF (Pre-Seed Accelerator Funds) funding to find a commercial partner to jointly develop his software, SmartINFO, for commercialisation.

Russel Pears and Yun Sing Koh have been awarded a research grant for the project “A machine learning approach to fraud detection in online auction networks”.

Judith Symonds has been awarded a research grant for the project “Goal managed training software prototype development project”.

PhD Theses

Dilip Limbu—*Contextual Information Retrieval from the WWW*

Chee Kit Wong—*Cognitive Mapping by an autonomous mobile robot*

Ajit Narayanan