ACSW 04 Conference schedule Monday 19th January 2004

9:00am - 10:30am

**** Conference Opening ** The Mayor of Dunedin, Sukhi Turner [Castle 1]**

**** Keynote ACSC address ** [Castle 1]**

Web Mining in Search Engines - Ricardo Baeza-Yates

10:30am - 11:00am — **Break - refreshments served in Foyer of Castle Theatre Complex**

11:00am - 12.30pm

ACSC1 Algorithms and Information Retrieval [Castle 1]

In-Place versus Re-Build versus Re-Merge: Index Maintenance Strategies for Text Retrieval Systems - Nicholas Lester, Hugh E. Williams, and Justin Zobel

Tuning the Collision Test for Power - W.W. Tsang, L.C.K. Hui, K.P. Chow, C.F. Chong and C.W. Tso

Access-Ordered Indexes - Steven Garcia, Hugh E. Williams, Adam Cannane

ADC1 Workflow Systems [Burns 5]

Customizing Internal Activity Behaviour for Flexible Process Enforcement - Joe Y.-C. Lin, Maria E. Orlowska and Belinda Carter

A Model of Dynamic Resource Allocation in Workflow Systems - Guido Governatori, Antonino Rotolo and Shazia Sadiq

Data Flow and Validation in Workflow Modelling - Shazia Sadiq, Maria Orlowska, Wasim Sadiq and Cameron Foulger

APBC1 RNA Secondary Structure [Castle 2]

RNA secondary structure prediction with simple pseudoknots - Jitender S. Deogun, Ruben Donis, Olga Komina, Fangrui Ma

Filtering of Ineffective siRNAs and Improved siRNA Design Tool - Prodence WH Wong, TW Lam, YC Mui, SM Yiu, Marie Lin

Exact Pattern Matching for RNA Secondary Structures - Ying Xu, Lusheng Wang, Xiaotie Deng

12:30pm - 2:00pm — **Lunch Break**

2:00pm - 3:30pm

**** APBC Keynote Address 1 ** [Castle 1]**

The Future of Bioinformatics - Professor Philip E. Bourne

Session Chair: Phoebe Chen

3:30pm - 4:00pm — **Break - refreshments served in Foyer of Castle Theatre Complex**

4:00pm - 5:30pm

ACSC2 Communications and Networks (Formal Methods) [Castle 1]

Kerberos Assisted Authentication in Mobile Ad-hoc Networks - Asad Amir Pirzada and Chris McDonald

Establishing Trust In Pure Ad-hoc Networks - Asad Amir Pirzada and Chris McDonald

Closed Form Expressions for the State Space of TCP's Data Transfer Service Operating over Unbounded Channels - Jonathan Billington and Bing Han

ADC2 Semi-Structured Data and XML [Burns 5]

Databases, but not as we know them (invited talk) - Gill Dobbie

Conflict Scheduling of Transactions on XML Documents - Stijn Dekeyser and Jan Hidders

APBC2 Recognition Sequences [Castle 2]

Recognition Sequences in the Restriction Endonucleases - Jan C. Biro, Josephine M.K. Biro

Multiple Sequence Alignment using Tabu Search - Tariq Riaz, Yi Wang, Kuo-Bin Li

Structure-Function Relationship in DNA sequence Recognition by Transcription Factors - Akinori Sarai, Samuel Selvaraj, Michael M. Gromiha, Hidetoshi Kono

5:30pm

Presentation by Microsoft [Castle 1]

Monday 19th January 2004

9:00am - 10:30am

Break - refreshments served in Foyer of Castle Theatre Complex — **10:30am - 11:00am**

CATS1 Formal Aspects [Castle C]

Formalising General Correctness - Jeremy Dawson

Checking Open Congruence in chi-Calculus - Taolue Chen, Jingyang Zhou, Tingting Han, Jian Lu

Towards a Readable Formalisation of Category Theory - Greg O'Keefe

ACE1 Surveys of the Discipline [Burns 2]

Employer satisfaction with ICT graduates - Hagan

What Drives Curriculum Change? - Gruba, Moffat, Sondergaard & Zobel

Introductory Programming: What's happening today and will there be any students to teach tomorrow? - de Raadt

AUIC Opening & Session I Groupware, Collaboration, and Context-Aware Environments [Burns 7]

Rapidly Prototyping Single Display Groupware through the SDGToolkit - Edward Tse and Saul Greenberg

Display and Presence Disparity in Mixed Presence Groupware - Anthony Tang, Michael Boyle, Saul Greenberg

Powerpoint to the People.: Suiting the Word to the Audience - Rene Hexel, Chris Johnson, Bob Kummerfeld, Aaron Quigley

11:00am - 12.30pm

Lunch Break — **12:30pm - 2:00pm**

CATS2 Logic and Algorithms 1 [Castle C]

A Membership Algorithm for Functional and Multi-valued Dependencies in the Presence of Lists - Sebastian Link, Sven Hartmann

Automated Theorem Proving with Spider Diagrams - Gem Stapleton, Jean Flower

Higher-order associative commutative pattern matching for component retrieval - David Hemer

ACE2 Software Engineering Projects I [Burns 2]

Using Extreme Programming in a Capstone Project - Keefe & Dick

Less Extreme Programming - Noble, Marshall, Marshall & Biddle

Peer Testing in Software Engineering Projects - Clark

AUIC 2 Visualisation and Visual Affects [Burns 7]

Revisiting 2D vs 3D Implications on Spatial Memory - Andy Cockburn

Visualization of Travel Itinerary Information on PDAs - Masood Masoodian, Daryl Budd

Rapid Visual Flow: How Fast Is Too Fast? - Andrew Wallace, Joshua Savage, Andy Cockburn

2:00pm - 3:30pm

Break - refreshments served in Foyer of Castle Theatre Complex — **3:30pm - 4:00pm**

CATS3 Algorithms and Combinatorics [Castle C]

How to Collect Balls Moving in the Euclidean Plane - Hirotaka Ono, Yuichi Asahiro, Takashi Horiyama, Kazuhisa Makino, Toshinori Sakuma, Masafumi Yamashita

Small Edge Dominating Sets of Regular Graphs - William Duckworth

Computing the Maximum Agreement of Phylogenetic Networks - Jesper Jansson, Charles Choy, Kunihiko Sadakane, Ken W.-K. Sung

ACE3 Ethics and Communication [Burns 2]

Uni Cheats Racket: A Case Study in Plagiarism Investigation - Zobel

Integrating ethical content into computing curricula - Greening, Kay & Kummerfeld

Strategies for Communication Skills Development - Gruba & El-Mahmood

AUIC 3 Supporting Interface Development [Burns 7]

A Web User Interface For An Interactive Software Repository - Stuart Marshall, Robert Biddle & James Noble

What makes a good User Interface pattern language? - E. Todd, E. Kemp, C. Phillips

Delegation Diagrams: Visual Support for the Development of Object-Oriented Designs - Ewan Tempero, James Noble, Robert Biddle

4:00pm - 5:30pm

5:30pm

Conference schedule

Tuesday 20th January 2004

9:00am - 10:30am

AUIC Plenary Keynote Session
[Castle 1]

Enhancing Creativity with (Groupware) Toolkits - Saul Greenberg

Chair: Andy Cockburn

ACSC3 Reasoning and Agents
[Burns 7]

Code Improvements for Model Elimination Based Reasoning Systems - Richard A. Hagen, Scott D. Goodwin, Abdul Sattar

A RMI protocol for Aglets - Feng Lu and Kris Bubendorfer

On Evolving Fixed Pattern Strategies for Iterated Prisoner's Dilemma - D. Jang and P. Whigham

10:30am - 11:00am — **Break - refreshments served in Foyer of Castle Theatre Complex**

11:00am - 12.30pm

***CATS Keynote Lecture ***
[Castle 1]

Succinct Data Structures - Ian Munro

APBC4 Protein Structures and Functions
[Castle 2]

Protein Side-chain Packing: A maximum edge-weight Clique Algorithmic Approach - Dukka Bahadur K.C., Tatsuya Akutsu, Etsuji Tomita, Tomokazu Seki

THEMATICS is Effective for Homology Model Structures: A Simple Computational Predictor of Functional Information for Proteins - Ihsan A. Shehadi, Alper Uzun, Leonel F. Murga, Valentin Ilyin, Mary Jo Ondrechen

Informative 3D Visualization of Multiple Protein Structures - Paulo Lai, Warren Kaplan, W. Bret Church, Raymond K. Wong

12:30pm - 2:00pm — **Lunch Break**

2:00pm - 3:30pm

**** APBC Keynote address 2 ****
[Castle 1]

Molecular Imaging and Biomedical Process Modeling - Professor David Dagan Feng

Session Chair: Phoebe Chen

3:30pm - 4:00pm — **Break - refreshments served in Foyer of Castle Theatre Complex**

4:00pm - 5:30pm

ACSC5 - Signal Processing (speech)
[Castle 1]

Learning Models for English Speech Recognition - Huayang Xie, Peter Andreae, Mengjie Zhang

Sensor Fusion Weighting Measures in Audio-Visual Speech Recognition - Trent Lewis and David Powers

Automatic Music Classification Problems - George Mitri, Alexandra L. Uitdenbogerd and Vic Ciesielski

ADC5 - Information Retrieval I
[Burns 5]

Challenges in Enterprise Search (invited talk) - David Hawking

Do Clarity Scores for Queries Correlate with User Performance? - Andrew Turpin and William Hersh

APBC5
[Castle 2]

A Dihedral angle database of short sub-sequences for protein structure prediction - Saravanan Dayalan, Savitri Bevinakoppa, Heiko Schroder

Nonparametric approaches to detecting differentially expressed genes in replicated microarray - Markus Neuhäuser, Fred C. Lam

Mega Weaver: A Simple Iterative Approach for BAC Consensus Assembly - Daolong Wang, Mario Lauria, Bo Yuan, Fred A. Wright

Tuesday 20th January 2004

ADC3 Web Information Systems and Applications [Burns 5]	APBC3 Genome Analysis [Castle 2]	CATS4 Logic and Algorithms 2 [Castle C]	9:00am - 10:30am
A Collaborative Approach for Caching Dynamic Data in Portal Applications - Mehregan Mahdavi, John Shepherd and Boualem Benatallah ***Performance and Cost Tradeoffs in Web Search*** - Nick Craswell, Francis Crimmins, David Hawking and Alistair Moffat ***Web Service Composition Transaction Management*** - Benchaphon	***Constructing Genome Scale Suffix Trees*** - A.L. Brown ***EMAGEN: An Efficient Approach to Multiple Whole Genome Alignment*** - Jitender S. Deogun, Jingyi Yang, Fangrui Ma ***Whole-Genome Functional Classification of Genes by Latent Semantic Analysis on Microarray Data*** - See-Kiong Ng, Sanjay Padmakar Khadayate, Yew-Soon Ong	***CHR: A constructive relevant natural-deduction logic*** - Neil Leslie, Edwin Mares ***Type Inference for Mobile Ambients in Prolog*** - Elio Giovannetti ***Generating Nearly Sorted Sequences - The use of measures of disorder*** - Vladimir Estivill-Castro	

Break - refreshments served in Foyer of Castle Theatre Complex	10:30am - 11:00am

ACE4 Java Programming [Burns 5]	ACE5 Special Needs Students [Burns 2]	AUIC 4 - Workspaces and workplaces [Burns 7]	11:00am - 12.30pm
Visualising Java Data Structures as Graphs - Hamer ***Static Analysis of Students' Java Programs*** - Truong, Roe, & Bancroft ***Using a Maze Case Study to Teach*** - Nevison & Wells	***New Arrival Students: Mitigating Factors on the Culture of the Computing Learning Environment*** - Crump ***Teaching ICT to Pacific Island Background Students*** - Latu and Young ***A Computing Education Vision for the Sight Impaired*** - Armstrong & Murray	***A Knowledge Management Approach to User Support*** - R. T. Jim Eales ***e-Ghosts: leaving virtual footprints in ubiquitous workspaces*** - Michael Vernik, Steven Johnson, Rudi Vernik ***From Snark to Park: Lessons learnt moving pervasive experiences from indoors to outdoors*** - Eric Harris, Geraldine Fitzpatrick, Yvonne Rogers, Ted Phelps, Sara Price	

Lunch Break	12:30pm - 2:00pm

ACSC4 Programming Languages [Castle C]	ADC4 Data Structures & Database Theory [Burns 5]	ACE6 Software Engineering Projects II [Burns 2]	2:00pm - 3:30pm
Exploiting FPGA Concurrency to Enhance JVM Performance - James Parnis and Gareth Lee ***Strength Reduction for Loop-Invariant Types*** - Phung Hua Nguyen and Jingling Xue ***Java Implementation Verification Using Reverse Engineering*** - David Cooper, Benjamin Khoo, Brian R. von Konsky, Michael Robey	***Normalisation in the Presence of Lists*** - Sebastian Link and Sven Hartmann ***Diagonal Ordering: A new approach to high-dimensional KNN processing*** - Jing Hu, Bin Cui and Hengtao Shen ***On the Computation of Database Queries with Reflective Relational Machines*** - Flavio A. Ferrarotti and Jose Maria Turull Torres	***Adventure Cycles a software engineering approach*** - Paynter & Sharkey ***Using SoDIS as a Risk Analysis Process: a teaching perspective*** - Gotterbarn & Clear ***Educational Experiences from a Global Software Engineering (GSE) Project*** - Purvis, Purvis & Cranefield	

Break - refreshments served in Foyer of Castle Theatre Complex	3:30pm - 4:00pm

CATS5 Systems and Algorithms [Castle C]	ACE7 Syllabus Design and Evaluation [Burns 2]	AUIC 5 Multimodal Interfaces [Burns 7]	4:00pm - 5:30pm
Aggressive Online Deadline Scheduling - Tak-Wah Lam, Johnny Ngan, Kar-Keung To, Prudence Wai-Ha Wong ***The Polymorphic Imperative: a Generic Approach to In-place Update*** - Quy Tuan Nguyen, Barry Jay, H.Y. Lu ***Cost-effectiveness of algorithms (informal presentation)*** - Graham Farr ***Creating Vertex Series Parallel Graphs from Directed Acyclic Graphs is NP-Complete (informal presentation)*** - Margaret Mitchell ***The Parameterized Complexity of SAT Backdoors (informal presentation)*** - Stefan Szeider	***This Course Has A Bloom Rating Of 3.9*** - Oliver, Dobele, Greber & Roberts ***The Evaluation of Courses in Information Systems*** - Bryant ***Developing and Implementing a Professional Doctorate in Computing*** - Joyce & Young	***Dogs or robots - Why do we see them as robotic pets rather than canine machines?*** - B. Bartlett, V. Estivill-Castro and S. Seymon ***Wearable Microphone Array as User Interface*** - Yong Xu , Mingjiang Yang, Yanxin Yan, Jianfeng Chen ***Tactons: Structured Tactile Messages for Non-Visual Information Display*** - Stephen Brewster and Lorna M. Brown	

Conference schedule

Wednesday 21st January 2004

9:00am - 10:30am

ACSC6 Image/Video Processing [Castle 1]

Lossless Image Compression Using Pixel Reordering - Michael Ciavarella and Alistair Moffat

Improving Resource Utilization QoS for MPEG-4 Decoding - Michael Ditze, Peter Altenbernd

Improved Video Mosaic Construction by Selecting a Suitable Subset of Video Images - J. S. Jimmy Li and Sharmil Randhawa

ADC6 Information Retrieval II [Burns 5]

Questioning Query Expansion: An Examination of Behaviour and Parameters - Bodo Billerbeck and Justin Zobel

How Valuable is External Link Evidence when Searching Enterprise Webs? - David Hawking, Francis Crimmins, Nick Craswell and Trystan Upstill

Index Compression using Fixed Binary Codewords - Vo Ngoc Anh and Alistair Moffat

APBC6 Bio-Pathway and Prediction [Castle 2]

Transmembrane Region Prediction with Hydropathy Index/Charge Two-Dimensional Trajectories of Stochastic Dynamical Systems - T. Kaburagi, D. Muramatsu, S. Hashimoto, M. Sasaki, T. Matsumoto

Integrating biopathway databases for large-scale modeling and simulation - Masao Nagasaki, Satoru Miyano, Atushi Doi, Hiroshi Matsuno

PathwayFinder: Paving the Way Towards Automatic Pathway Extraction - Daming Yao, Jingbo Wang, Yanmei Lu, Nathan Noble, Huandong Sun, Xiaoyan Zhu, Nan, Lin, Donald G. Payan, Ming Li, Kunbin Qu

10:30am - 11:00am — **Break - refreshments served in Foyer of Castle Theatre Complex**

11:00am - 12.30pm

ACSC7 High performance Computing (cluster computing) [Castle 1]

Garbage Collection for Storage-Oriented Clusters - William Brodie-Tyrrell, Henry Detmold, Katrina Falkner, David S. Munro

Homeless and Home-based Lazy Release Consistency Protocols on Distributed Shared Memory - Byung-Hyun Yu, Zhiyi Huang, Stephen Cranefield and Martin Purvis

On Improving the Memory Access Patterns During The Execution of Strassen's Matrix Multiplication Algorithm - Hossam ElGindy And George Ferizis

ADC7 Web Data Processing [Burns 5]

Optimizing The Lazy DFA Approach for XML Stream Processing - Danny Chen and Raymond K. Wong

Static Analysis of XSLT Programs - Ce Dong and James Bailey

Representing and Reasoning on XForms Document - Peng Yew Cheow and Guido Governatori

APBC7 Virus Analysis [Castle 2]

Detecting local symmetry axis in 3-dimensional virus structures - Jing He, Desh Ranjan, Michael F. Schmid, Wah Chiu

Initial SARS genome data analysis using a bioinformatics platform - Hong Luo, Jianmin Wu, Ge Gao, Yin Sun, Yujia Chen, Jingchu Luo

Evolution of Relative Synonymous Codon Usage in Human Immunodeficiency Virus Type 1 - Peter Meintjes, Allen Rodrigo

12:30pm - 2:00pm — **Lunch Break**

2:00pm - 3:30pm

** ADC Plenary Keynote Session ** [Castle 1]

What Do You Want—Semantic Understanding? (You've Got to be Kidding) - David Embley

Chair: Klaus-Dieter Schewe

3:30pm - 4:00pm — **Break - refreshments served in Foyer of Castle Theatre Complex**

4:00pm - 5:30pm

** Keynote APCCM ** [Castle 1]

Co-Design of Structuring, Functionality, Distribution and Interactivity for Information Systems - Bernhard Thalheim

ACSC8 Robotics and Fuzzy Logic [Burns 2]

Forward Chaining for Robot and Agent Navigation using Potential Fields - Graeme Bell, Michael Weir

Frequency Space Representation of Transitions of Quadruped Robot Gaits - Jan Hoffmann, Uwe Dueffert

Adaptive Cooperative Fuzzy Logic - Justin Ammerlaan and David A. Wright

Wednesday 21st January 2004

ACE8 Non-traditional Approaches to Programming [Burns 2]

Learning about Software Development - should Programming always come first? - Hamilton & Haywood

Learning to Program: SpreadsheetsScripting and HCI - Warren

Teaching Introductory Programming to Information Systems and Computing Majors: Is There a Difference? - Prasad & Li

ACE9 Large Classes [Castle C]

Flexible Learning - maximising flexibility in a subject with large student numbers - Goodwin & Williams

Making large class teaching more adaptive with the Logic-ITA - Yacef

Managing Large Class Assessment - Rhodes, Bancroft & Bower

APBC Short papers 1 - Protein Classification and Pyrosequencing [Burns 7]

09:00-09:15 Dispensation Order Generation for Pyrosequencing * Mats Carlsson, Nicolas Beldiceanu

09:15-09:30 Classification Comparison of Prediction of Solvent Accessibility from Protein Sequences * Huiling Chen, Huan-Xiang Zhou, Xiaohua Hu, Illhoi Yoo

09:30-09:45 A Pathway Editor for Literature-based Knowledge Curation * Ken Ichiro Fukuda, Toshihsa Takagi

09:45-10:00 Empirical knowledge and genetic algorithms for selection of Amide I frequencies in protein secondary structure prediction * Joachim A. Hering, Peter R. Innocent, Parvez I. Haris

10:00-10:15 Towards a Theory of Protein Adsorption: Predicting the Adsorption of Proteins on Surfaces via a Piecewise Linear Model * Dan V. Nicolau Jr.

10:15-10:30 Local prediction approach of protein classification using Probabilistic suffix trees * Zhaohui Sun, Jitender S. Deogun

9:00am - 10:30am

Break - refreshments served in Foyer of Castle Theatre Complex — **10:30am - 11:00am**

ACE10 Subject Specific Issues [Burns 2]

The Case for More Digital Logic in Computer Architecture - Hoffman

Teaching computer architecture in introductory computing: Why? and How? - Powers

Computing theory with relevance - Brookes

ACE11 Assessment [Castle C]

Object-Oriented Analysis Criterion-Referencing and Bloom - Box

Evaluating assessment with competency mapping - McNamara

Five myths of assessment - Daniels, Berglund, Pears & Fincher

APBC Short papers 2 - Genome Data and Visualisation [Burns 7]

11:00-11:15 A rapid method of whole genome visualisation illustrating features in both coding and non-coding regions * R. Hall, L. Stern

11:15-11:30 Evolving Genetic Regulatory Networks Using an Artificial Genome * Jennifer Hallinan, Janet Wiles

11:30 - 11:45 Cluster Ensemble and Its Applications in Gene Expression Analysis * Xiaohua Hu, Illhoi Yoo

11:45-12:00 Advanced Texturing techniques for the Effective Visualization of Neoroanatomy from Diffusion Tensor Imaging Data * Burkhard Wuensche

12:00-12:15 Measuring Correlation between Microarray Time-series Data using Dominant Spectrum Component * Lap Kun Yeung, Hong Yan, Lap Keung Szeto, Alan Wee-Chung Liew, Michael Yang, Richard Kong

11:00am - 12.30pm

Lunch Break — **12:30pm - 2:00pm**

APBC 8 Bioinformatics Networks [Castle 2]

Representing Experimental Biological Data in Metabolic Networks - Tim Dwyer, Hardy Rolletschek, Falk Schreiber

A novel method for protein subcellular localization Based on Boosting and Probabilistic Neural Network - Jian Guo, Zhirong Sun, Yuanlie Lin

BRINet: A BioResource Integration Network - Jason E. Sew Hoy, John R. McDonald, Alan F. McCulloch

APBC 9 Cancer Data and Detection [Burns 5]

Support Vector Machine Approach for Cancer Detection using Amplified Fragment Length Polymorphism (AFLP) Screening Method - Waiming Kong, Lawrence Tham, Yew Wong, Patrick Tan

Use of Built-in Features in the Interpretation of High-dimensional Cancer Diagnosis Data - Jinyan Li, Huiqing Liu, Limsoon Wong

Using Emerging Pattern Based Projected Clustering and Gene Expression Data for Cancer Detection - Larry T.H. Yu, Fu-lai Chung, Stephen C.F. Chan

ACE12 E-Learning [Burns 2]

Using animations to support the teaching of general computing concepts - Smith & Escott

Applying SPICE to e-Learning: An E-Learning Maturity Model? - Marshall & Mitchell

Facilitating successful online computing courses while minimising extra tutor workload - Young & McSporran

2:00pm - 3:30pm

Break - refreshments served in Foyer of Castle Theatre Complex — **3:30pm - 4:00pm**

ACSC9 Misc (Education, Privacy and Cellular Automata) [Castle A]

Detecting Privacy and Ethical Sensitivity in Data Mining Results - Peter Fule and John Roddick

Self-replicating Expressions in the Lambda Calculus - James Larkin and Phil Stocks

The Effectiveness of Innovative Approaches to CS1: Comparing Opinion to Outcome - James Allert

ADC8 - Spatial and Temporal Data [Burns 5]

Multiresolution Amalgamation: Dynamic Spatial Data Cube Generation - Sham Prasher and Xiaofang Zhou

An Efficient Method for Indexing Now-relative Bitemporal data - Bela Stantic, Sankalp Khanna and John Thornton

Clustering Moving Objects for Spatio-temporal Selectivity Estimation - Qing Zhang and Xuemin Lin

APBC10 Microarray and Gene Expression [Castle 2]

An empirical Bayes adjustment to multiple p-values for the detection of differentially expressed genes in microarray experiments - Somnath Datta and Susmita Datta

A Novel Feature Selection Method to Improve Classification of Gene Expression Data - Liang Goh, Qun Song, Nikola Kasabov

On the Simultaneous Use of Clinical and Microarray Expression Data in the Cluster Analysis of Tissue Samples - G. J. McLaclan, S. Chang, J. Mar, C. Ambroise

4:00pm - 5:30pm

Conference schedule — Thursday 22nd January 2004

9:00am - 10:30am

**** ACE Keynote Address ****
[Castle 1]

Computing Education, Computing Education Research: Communities of Practice - Sally Fincher

ACSC10 Software Architecture and OO Systems
[Burns 7]

Using Self-Defending Objects to Develop Security Aware Applications in Java - John W. Holford, William J. Caelli, Anthony W. Rhodes

An Evaluation of Web Services in the Design of a B2B Application - K. Hogg, P. Chilcott, M. Nolan and B. Srinivasan

An Open Meteorological Alerting System: Issues and Solutions - Ian Mathieson, Sandy Dance, Lin Padgham, Malcolm Gorman, Michael Winikoff

10:30am - 11:00am — **Break - refreshments served in Foyer of Castle Theatre Complex**

11:00am - 12.30pm

ACSC12 Modeling and Formal Methods
[Castle 1]

A framework for modelling and analysing mobile systems - Graeme Smith

An approach to specifying software frameworks - Leesa Murray, David Carrington, Paul Strooper

Towards A Semantic Basis for Rosetta - Catherine Menon, Charles Lakos, Cindy Kong

ACSC13 Computer Architecture
[Castle C]

Verification of the Futurebus+ Cache Coherence protocol: A case study in model checking - Kylie Williams & Robert Esser

Reducing Register Pressure Through LAER Algorithm - Gao song, Donglin Wang

APBC12-1 Phylogenetic Analysis [Castle 2]

An Overview of the Phylogenetics Analysis Library - Matthew Goode, Korbinian Strimmer, Alexei Drummond, Ed Buckler

Identifying Character Non-Independence in Phylogenetic Data Using Data Mining Techniques - Anne M. Maglia, Jennifer L. Leopold, Venkat Ram Ghatti

APBC12-2 Short papers 3 - Phylogenetic Analysis
[Castle 2]

Phylogenetic Trees: An Information Visualisation Perspective * Savrina Flora Carrizo

Phylogenetic tree of prokaryotes based on the complete genomes using fractal and correlation analyses * Zu-Guo Yu, Vo Anh

12:30pm - 1:30pm — **Lunch Break**

1:30pm - 2:30pm

CSA Forum *Computer Science 2010*
[Castle 1]

Computer Science in Australia and New Zealand faces many challenges. This forum is an opportunity to identify these challenges and consider how they could be addressed through shifts in government policy. We have an opportunity to influence government on key issues affecting the discipline.

2:30pm - 4:00pm

ACSC14 Visualization and Graph Theory
[Castle 1]

Network Robustness and Graph Topology - Anthony H. Dekker and Bernard D. Colbert

Using generative programming to visualise hypercode in complex and dynamic systems - Katherine Mickan, Ron Morrison, Graham Kirby, Dharini Balasubramaniam, Evangelos Zirintsis

Flexible Layering in Hierarchical Drawings with Nodes of Arbitrary Size - Carsten Friedrich, Falk Schreiber

ACSC15 Security
[Castle C]

Visually Sealed and Digitally Signed Documents - Vicky Liu, William Caelli, and Ernest Foo

Anonymous access scheme for electronic services - Lili Sun, Hua Wang, Yanchun Zhang, Jinli Cao

Securing Distributed Computing Against the Hostile Host - Paul Dagger and John H. Hine

Thursday 22nd January 2004

ACSC11 Formal Methods [Castle C]

Automatic Derivation of Loop Termination Conditions to Support Inspection - Daniel Powell

Formalization of UML Statechart Models Using Concurrent Regular Expressions - S. Jansamak, A. Surarerks

Completing the Formal Semantics of OCL 2.0 - Stephan Flake

APBC11 Discovery and Search Algorithm [Castle 2]

Variable-length Intervals in Homology Search - Abhijit Chattaraj, Hugh E. Williams

Ladderlike Stepping and Interval Jumping Searching Algorithms for DNA Sequences - Tun-Wen Pai, Jia-Han Chu, Wei-Yuan Chang, Margaret Dah-Tsyr Chang, Hsiu Ling Tai

A Combined Model and a Varied Gibbs Sampling Algorithm Used for Motif Discovery - Xiaoming Wu, Bo Wang, Changxin Song, Jingzhi Cheng

APCCM1 Opening & Session I Ontologies and Information Retrieval [Castle A]

Improving Domain Ontologies by Mining Semantics from Text - Michael Dittenbach, Helmut Berger and Dieter Merkl

An Experimental Evaluation of Property Precedence in Conceptual Modelling - Jeffrey Parsons and Linda Cole

An Adaptive Information Retrieval System based on Associative Networks - Helmut Berger, Michael Dittenbach and Dieter Merkl

9:00am - 10:30am

Break - refreshments served in Foyer of Castle Theatre Complex — **10:30am - 11:00am**

ACE13 Introductory Programming [Burns 5]

The Cryptic Crossword Puzzle as a Useful Analogue in Teaching Programming - Simon

Patterns in Learning to Program - An Experiment? - Porter & Calder

Teaching Java First: Experiments with a Pigs-Early Pedagogy - Lister

ACE14 Assorted Issues [Burns 2]

From Informal to Formal: Creating the Australasian Computing Education Community - Sheard & Carbone

Change and innovation we expect of ICT teaching staff - Potgieter

Automating the Estimation of Project Size from Software Design Tools Using Modified Function Points - Ceddia & Dick

APCCM2 Distributed and Web Information [Castle A]

Using Abstract State Machines for Distributed Data Warehouse Design - Jane Zhao and Klaus-Dieter Schewe

Automating XML Document Transformations: A conceptual modelling based Approach - Aida Boukottaya, C. Vanoirbeek, F. Paganelli and O. Abou Khaled

Context-Aware Web Information Systems - Aleksander Binemann-Zdanovicz, Roland Kaschek, Klaus-Dieter Schewe and Bernhard Thalheim

11:00am - 12.30pm

Lunch Break — **12:30pm - 1:30pm**

APCCM3 Invited Talks [Castle A]

NB This session runs from 1:30pm to 3:00pm

On Conceptual Modelling and Design of Role-Based Access Control Systems - Yanchun Zhang

On the Road to Behavior-Based Integration - Markus Stumptner, Michael Schrefl and Georg Grossmann

1:30pm - 2:30pm

ACE15 Tools [Burns 5]

VELNET (Virtual Environment For Learning Networking) - Kneale, de Horta & Box

TinkerNet: A Low-Cost Networking Laboratory - Erlinger, Molle, Winters, Lundberg & Shea

Executable/Translatable UML in Computing Education - Flint, Boughton & Gardner

ACE16 Non-traditional Teaching Methods [Burns 2]

Conversational KM - Student Driven Learning - Wells & Brook

The Influence of Web-supported Independent Activities and Small Group Work on Students' Epistemological Beliefs - Tolhurst

Personal Software Process in the Database Course - Bullers

2:30pm - 4:00pm

APCCM break and refreshments 3 :00- 3:30

APCCM4 Information Integration [Castle A]

NB This session runs from 3:30pm to 5:00pm

Putting Integrated Information in Context: Superimposing Conceptual Models with SPARCE - Sudarshan Murthy, David Maier, Lois Delcambre and Shawn Bowers

Incorporating Business Requirements and Constraints in Database Conceptual Models - Khaled Khan, Mahesha Kapurubandara and Urvashi Chadha

Enterprise Architecture Modelling using Elastic Metaphors - Gerald R. Khoury and Simeon J. Simoff

Workshop schedule (all workshops to be held in Castle D)

Tuesday 20th January

9:00am - 10:30am

AISW 1 Application Security

Tamper-proofing Software Watermarks - Clark Thomborson, Jasvir Nagra, Ram Somaraju and Charles He

A Framework for Obfuscated Interpretation - Akito Monden, Antoine Monsifrot and Clark Thomborson

A Buddy Model of Security for Mobile Agent Communities Operating in Pervasive Scenarios - John Page, Arkady Zaslavsky and Maria Indrawan

10:30am - 11:00am — **Break - refreshments served in Foyer of Castle Theatre Complex**

11:00am - 12.30pm

**** AISW 2 Invited Keynote Address ****

Survivability and Business Continuity Management - Gerald Quirchmayr

12:30pm - 2:00pm — **Lunch Break**

2:00pm - 3:30pm

AISW 3 Security Protocols

On the Security of Some Proxy Blind Signatures Schemes - Hung-min Sun and Bin-Tsan Hsieh

Secure Key Issuing in ID-based Cryptography - Byoungcheon Lee, Colin Boyd, Ed Dawson, Kwangjo Kim, Jeongmo Yang and Seungjae Yoo

Belief Based Risk Analysis - Audun Josang, Daniel Bradley and Svein J.Knapskog

3:30pm - 4:00pm — **Break - refreshments served in Foyer of Castle Theatre Complex**

4:00pm - 5:30pm

AISW 4 Enterprise Security

Mesmerize - an Open Framework for Enterprise Security Management - Daniel Bradley and Audun Jøsang

Defining Security Services for Electronic Tendering - Rong Du, Ernest Foo, Colin Boyd and Brian Fitzgerald

A Case Study in Access Control Requirements for a Health Information System - M. Evered and S. Bögeholz

Wednesday 21st January

AWDM&WI 1 Data Mining Methodology

Early Assessment of Classification Performance - Bostjan Brumen, Izidor Golob, Aida Kamisalic, Hannu Jaakkola, Tatjana Welzer and Ivan Rozman

Stress Detection Using Decision Trees and Support Vector Machines - Huayang Xie, Peter Andreae, Mengjie Zhang and Paul Warren

Experiences in Building a Tool for Navigating Association Rule Result Sets - Peter Fule and John Roddick

**** AWDM&WI 2 Keynote ****

We Have Seen the Future, and It Is Symbolic - Eamonn Keogh

Poster Pre-session Presentations [5, each 2 minutes]

Poster Session

AWDM&WI 3 Temporal data mining
NB runs from 1.30 - 2.20

Cost-Efficient Mining Techniques for Data Streams - Mohamed Medhat Gaber, Shonali Krishnaswamy and Arkady Zaslavsky

Clustering Stream Data by Regression Analysis - Masahiro Motoyoshi, Takao Miura and Isamu Shioya

AWDM&WI 4 Information Retrieval and Distributed Intelligence
NB runs from 2.25 - 3.40

Visualisation and Comparison of Image Collections Based on Self-organised Maps - Da Deng, Jianhua Zhang and Martin Purvis

A Fuzzy Ontology for Medical Document Retrieval - David Parry

Monitoring and Controlling of A Multi-agent based Workflow System - Bastin Tony Roy Savarimuthu, Maryam Purvis and Martin Fleurke

AWDM&WI 5 Visual Data Mining & Multimedia Data Mining

Application of Self-Organizing Maps to Clustering of High-Frequency Financial Data - Adam Blazejewski and Richard Coggins

A Wavelet-based Neuro-Fuzzy System for Data Mining Small Image Sets - Brendon Woodford, Da Deng and George Benwell

Applying Online Gradient-Descent Search to Genetic Programming for Object Recognition - Will Smart and Mengjie Zhang

Conclusion (Martin Purvis)

Thursday 22nd January

8:30 am - 10:30am	**** AWSI 1 Scene setting and Keynote address **** **NB starts 8.30am** ***Key Challenges in Software Internationalisation*** - James M. Hogan, Chris Ho-Stuart and Binh Pham **Keynote Address: *Language Technology and Software Internationalisation*** - Robert Dale
10:30am - 11:00am	**Break - refreshments served in Foyer of Castle Theatre Complex**
11:00am - 12.30pm	**AWSI 2 Some New Problem Domains** ***Internationalisation in the Web Services Domain*** - Kim Elms ***Towards a multi-lingual workflow system - a practical outlook*** - Bastin Tony Roy Savarimuthu and Maryam Purvis
12:30pm	**Lunch Break**
2:30pm - 4:00 pm	**AWSI3 Practice and Curriculum** ***Internationalisation in the Large at Oracle*** - John Richardson ***Developing and Delivering a Software International-isation Subject*** - Tony Sahama, Chris Ho-Stuart and James M. Hogan