

CURRICULUM VITAE

PROFESSOR THARAM S. DILLON

BIOGRAPHICAL SKETCH

Professor Tharam Dillon is Professor of Computer Science and Head of Research and Development at the Digital Ecosystems and Business Intelligence Institute, Curtin University of Technology, Perth, Western Australia. He was the Dean of the Faculty of Information Technology at the University of Technology, Sydney till 2006, a position he held since 2003. Professor Tharam was the Chair Professor of Computer Science and Computer Engineering at La Trobe University, a position he assumed at the beginning of 1986. In December 1998 he took up the position of Professor of Computing at Hong Kong Polytechnic University and Acting Head of Department of Computing until July 2001, at which time he resumed his role as Chair Professor and Head of the School of Engineering at La Trobe University. He is a Fellow of the Institution of Electrical and Electronic Engineers (USA), Fellow of the Institution of Engineers (Australia), Fellow of the Safety and Reliability Society (UK), and Fellow of the Australian Computer Society.

RESEARCH PROFILE

He has published over six hundred and twenty (620) papers as book chapters, in international and national journals, refereed conference proceedings, written five (5) books and edited five (5) other books, and published thirty two (32) chapters in edited books. He has attracted over \$6 million dollars in research funding. His work is widely cited and therefore has considerable impact. Over the last few years he has been cited several times in over 1000 scientific articles (source: Google Scholar). He has an H-Index of 21 (Google Scholar) which puts him in the top percentile of researchers. Techniques pioneered have also been widely adopted in industry. Examples include: (i) the most widely used short term load forecasting around the world technique using adaptive neural networks, and (ii) the most widely used hydro-thermal scheduling optimization technique used around the world.

He has a very widely known international reputation. He is Co-Editor-in-Chief of three international journals namely the International Journal of Computer Systems Science and Engineering, the International Journal of Electric Power and Energy Systems, and the International Journal of Engineering Intelligent Systems. He is also an Advisory Editor of IEEE Transactions in Industrial Informatics and has been an Advisory Editor of the IEEE Transactions on Neural Networks in the USA. He is the Chair of the IEEE /IES Technical Committee on Industrial Informatics and the Chair of the IFIP Working Group 2.12/12.4 on Web Semantics. He is on the advisory editorial board of Computer Communications published by Elsevier. He has been on the program committee of the Avignon Experts Systems Conference held in France annually since 1988, and on the IEEE Tools for AI Conference. He was International Committee Chairman for Fourth International Conference on Petri Nets for Performance Evaluation (1991), Chairman of the International Program Committee of the IEEE Workshop on Emerging Technologies for Factory Automation (1992) and Vice Chairman of the International Conference on Expert System Applications to Power Systems (1993). He was also Chairman of the Technical Program Committee of the Power Systems Computation Conference (PSCC 1996), Vice Chairman of PSCC in 1990 and 1993 and Technical Committee Chair for PR Fault Tolerant Computer Systems 1994. He was General Chairman of

the IFIP Conference on Data Semantics DS-8 held in January 1999 and Technical Program Committee joint chair for the IFIP Conference on Data Semantics DS-9 in April 2001. Over the past few years he has been on the program committee of numerous other conferences in the computer science and computer engineering fields.

He is a member of several international technical committees and working groups and was Chairman of the International CIGRE Task Force 38-06-02 on Expert Systems for Monitoring and Alarm Processing in Control Centers. He is also a member of IFIP Working Group 2.6 on Knowledge and Data Semantics.

The books he has recently co-authored are on the following:

- Trust and Reputation in Service Oriented Environments
- e-Commerce
- Object oriented conceptual modeling for the development of traditional software
- Automated knowledge acquisition
- Hybrid Multi Agent Systems

He has published widely on the following areas:

- bioinformatics
- neural networks
- expert and knowledge based systems
- object oriented systems
- software engineering and quality of software measurement
- machine learning and data mining
- fault tolerance and real time
- computer networks and the internet
- neural/symbolic multiagent systems
- XML based systems
- Ontology
- Trust and Reputation Systems

He has supervised to completion over 38 PhD thesis and eight Masters by Research. He is currently supervising six postgraduate students proceeding to a PhD or Masters by Research.

INVITED KEYNOTE PAPERS

He has been invited to present over 30 keynote papers at major international conferences. Some of his selected keynotes include:

1. Knowledge Discovery in Biological Systems using Multiple Sources of Interaction in 21st IEEE International Symposium on Computer Based Biomedical Systems in Finland 2008 (CBMS 2008)
2. An Architecture for a Semantic Grid in IEEE Conference on Semantics, Knowledge and the Grid (SKG2007)
3. Reference Architecture for Web Services in IFIP Conference on Network and Parallel Systems (NPS2007)
4. Mining Substructures in Protein Data in IEEE Workshop on Data Mining in Bioinformatics with IEEE WI-IAT-ICDM 2006

5. 'Measurement of usability of software using a fuzzy systems approach'. Invited Paper. *Proceedings of the 8th International Conference on Software Engineering and Knowledge Engineering (SEKE '96)*. Lake Tahoe, Nevada, June 10-12 1996, pp. 69-76. (with E. Chang and D. Cook)
6. 'Edge detection using fuzzy reasoning and model-based training'. In M. Palaniswami, Y. Attikiouzel, R.J. Marks, D. Fogel and T. Fukuda, eds. *Computational Intelligence: A Dynamic System Perspective*. Piscataway, NJ, IEEE Press, 1995, pp. 108-25. (Invited Keynote Paper. *IEEE International Conference on Neural Networks*. Perth, Australia, November 1995). (with J.C. Bezdek, F.M. Cheong and D. Karla)
7. 'Object-oriented technologies and engineering'. Invited Keynote Paper. *12th Avignon Expert Systems Conference (AI'94)*. France, June 1994, pp. 11-27. (with E. Chang)
8. 'Application of the object-oriented approach to power systems problems'. Invited Keynote Paper. *Proceedings of the 11th Power Systems Computations Conference (PSCC)*. Avignon, August 1993, pp. 21-30. (with E. Chang)
9. 'A neuro-expert system approach to power system problems'. Invited Keynote Paper. *Proceedings of the Fourth International Symposium on Expert System Applications to Power Systems (ESAP'93)*. Melbourne, January 1993, pp. 8-15. (with R. Khosla)
10. 'Artificial neural network applications to power systems and their relationship to symbolic methods'. (*PSCC-10* Invited Keynote Paper, pp. 66-72, 1991)
11. 'Using sub-symbolic methods for machine learning of high level knowledge representations'. Invited Keynote Paper. *Proceedings of Finnish Artificial Intelligence Congress*. June 1990, pp. 27-49. (with S. Sestito)
12. 'Expert systems - potential and limitations in the application to power systems', Invited Keynote Paper. *Proceedings Symposium on Expert Systems Application to Power Systems*. Stockholm, August 1988, Session 18, pp. 1-9.
13. 'Evaluation and limitations of expert systems'. Invited Keynote Paper. *Proceedings International Conference and Exhibition on Modelling and Simulation*. Melbourne, Australia, October 1987, pp. 1-26.
14. 'Parallel processing systems - an overview'. Invited Keynote Paper. *Proceedings of the Seminar on Parallel Computing Architectures*. Telecom Australia Research Laboratories, Clayton, Victoria, February 1986.
15. 'Dependable and distributed computer applications in power systems'. Invited Keynote Paper. *Proceedings of Eighth Power Systems Computation Conference (PSCC-8)*. Helsinki, Finland, August 1984, pp. 135-43.
16. 'Dynamics and control of large scale systems'. Invited Keynote Paper. *Proceedings Seventh Power Systems Computation Conference (PSCC-7)*. Lausanne, Switzerland, July 1981, pp. 1179-90.

EDITORIAL RESPONSIBILITIES

He has been asked to be Editor of several international journals and these include:

1. Editor-in-chief International Journal of Computer Systems Science & Engineering (UK) 1986-1991 Butterworths, 1992-1996 CRL Publishing.
2. Editor-in-Chief International Journal of Engineering Intelligent Systems (UK) 1993-1996.
3. Chief Co-editor International Journal of Electric Power and Energy Systems (UK) 1978-1991, Butterworths 1992-1996 Elsevier.
4. Associate Editor IEEE Transactions on Neural Networks (USA) 1994 - 2004.

5. Member of Advisory Editorial Board of Applied Intelligence Kluwer (USA) 1995 - 2005.
6. Member of Advisory Editorial Board of Computer Communications, Elsevier (UK)
7. Associate Editor of IEEE / IES Transactions on Industrial Informatics (USA).
8. Member of Advisory Editorial Board of Computer Aided Design.
9. Member of the Editorial Board of International Journal of Metadata, Semantics and Ontologies

Through these positions as Editor, he has had an important leadership role in influencing the direction of the subject.

INTERNATIONAL PROGRAMME COMMITTEES OR INTERNATIONAL WORKING GROUPS

He has been asked to serve on the following programme committees:

1. Technical Committee Chair for PR Conference on Fault Tolerant Computer Systems 1994.
2. Chairman of the International Programme Committee of the IEEE Workshop on Emerging Technologies for Factory Automation (1992).
3. International Committee Chairman for Fourth International Conference on Petri Nets for Performance Evaluation (1991).
4. Technical Programme Chair 12th Power Systems Computation Conference (PSCC Dresden, Germany 1996).
5. Technical Vice Chairman, Programme Committee of Tenth and Eleventh Power Systems Computer Conference (Austria 1990), (France 1993).
6. Technical Chairman 4th International Conference on Expert Application to Power Systems (1993).
7. Member Programme Committee since 1988 of the Avignon Experts Systems Conference held in France annually.
8. Member Programme Committee IEEE Tools for AI Conference (1992, USA).
9. Member Programme Committee International Conference on Computer Communication and Networks (1995, 1996, USA).
10. Member Programme Committee 3rd International Workshop on Object-Oriented Real Time Systems (1997 USA).
11. Member Programme Committee International Conference on Software Engineering & Knowledge Engineering (Spain) 1997.
12. Member Steering Committee of International Conference on Intelligent System Applications to Power Systems (1988-1996).
13. Member, Programme Committee, IFIP Workshop DS-6, Georgia USA (1995).
14. General Chair, IFIP Working Conference DS-8, New Zealand (1998).
15. International Program Committee Chairman IFIP Working Conference DS-9, Hong Kong (2001)