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RESEARCH INTERESTS

- Communication Networks: Flow Control, Routing and Clean Slate Design
- Wireless Communications and Networks
- Signal processing
- Interconnected Dynamical Systems
- Stochastic Networks and Processes
- Optimization Theory, Control Theory and Applications

EDUCATION

1997 **PhD** in Electrical Engineering, University of Melbourne, Melbourne Australia

1993 **BSc** in Computer Science, University of Melbourne

1992 **BE** in Electrical Engineering (first class honours), University of Melbourne

EMPLOYMENT HISTORY

Oct 2005– **California Institute of Technology**, Pasadena, CA

Present **Senior Research Engineer**, Computer Science Department

Manage, develop and use US\$2M WAN-in-Lab test-bed <<http://wil.cs.caltech.edu>>

Maintain academic version of FAST TCP. Supervision of junior research staff

May 2005– **City University of Hong Kong**, Hong Kong (SAR), China

July 2005 **Visiting Researcher**, Host: A/Prof. Sammy Chan

Develop ADPM signalling for MaxNet

Sep 2004– **University of Melbourne**, Melbourne, Australia

Sep 2005 **Senior Research Fellow**, Department of Electrical and Electronic Engineering

Research into Network Flow Control, Wireless sensor networks, Channel estimation

Supervision of research students

Feb 1998– **University of Melbourne**, Melbourne, Australia

Sep 2004 **Research Fellow**, Department of Electrical and Electronic Engineering

Research into Cellular Mobile Communications Systems, Network Flow Control,
Medium Access Control

Supervision of research students

Teaching: Information Theory and Coding, Communication Networks

July 1996– **RMIT University**, Melbourne, Australia

Dec 1997 **Lecturer**, Department of Communication and Electronic Engineering

Teaching: LANs, simulation, ISDN/BISDN, multimedia, modulation

Supervision of research students

Research in Computer Communication Networks

FUNDING

Oct 2007 NSF-funded Travel award to attend IEEE MASS 2007

2005–2007 “Control Protocols for Wireless Networks” **ARC DP0557611**, with Steven V. Hanly

1993–1996 Australian Telecommunications and Electronics Research Board (ATERB) scholarship

1993–1996 Priority Australian Postgraduate Research Award (APRA)

AWARDS and HONOURS

- 2007 Best paper award at IEEE conference: Mobile Ad-hoc and Sensor Systems (MASS)
- 1992 IEE Prize (Final year electrical engineering)
- 1992 Dixon Scholarship (Final year electrical engineering)
- 1991 John Monash Exhibition (Third year electrical engineering)
- 1991 C.G.H. McDonald Memorial Prize (Third year electrical engineering)
- 1989 Dwight's Prize (First year physics)
- 1989 John MacFarland Exhibition (First year pure mathematics)
- 1987 Certificate of Achievement, Australian Mathematics Olympiad Trials
- 1986 Certificate of Participation, Australian Mathematics Olympiad Trials

SELECTED INVITED TALKS

- 5 Feb 2007 "FAST TCP" Microsoft's congestion control workshop
- 5 Feb 2007 "A WAN-in-Lab for protocol Development" Microsoft's congestion control workshop
- 12 Feb 2007 "Rate Control with Packet Corruption" IRTF/IETF Internet Congestion Control RG
- 26 Sep 2006 "A WAN-in-Lab for protocol Development" Princeton "From Theory to Systems" workshop

RESEARCH STUDENTS

- 2001 PhD: David Hayes (joint with Michael Rumsewicz)
- 2002 PhD: Ravindra Ranasinghe (joint with David Everitt)
- 2006 PhD: Ananda Kusuma (joint with Steven Hanly)
- 2007 PhD: Thayaparan Thanabalasingham (joint with Steven Hanly)
- 2007 PhD: Jolyon White (joint with Rod Tucker)
- Submitted PhD: Tony Cui (joint with Moshe Zukerman and Bill Shieh)
- Submitted PhD: Angiras Varma (joint with Jonathan Manton, Chandra Athaudage, Brian Krongold)
- Ongoing PhD: Ji Li (joint with Moshe Zukerman and Peter Farrell)

PUBLICATIONS

- Top 10**
- [References refer to full journal and conference publication lists below.]
1. [J1] "An Improved Link Model for Window Flow Control and Its Application to FAST TCP", IEEE Trans Automatic Control.
 2. [C13] "Understanding XCP: Equilibrium and Fairness" INFOCOM, 2005
 3. [J11] "Fast Simulation of Wavelength Continuous WDM Networks" ToN, 2004
 4. [J4] "Adaptive Deterministic Packet Marking" IEEE Comm. Letters 2006
 5. [C3] "Opportunistic Source Coding for Data Gathering in Wireless Sensor Networks" MASS 2007 (**Best paper award**)
 6. [C7] "Joint Allocation of Subcarriers and Transmit Powers in a Multiuser OFDM Cellular Network" ICC 2006
 7. [C38] "Quality of Service Driven Packet Scheduling Disciplines for Real-time Applications: Looking Beyond Fairness" INFOCOM, 1999
 8. [J16] "MaxNet: A Congestion Control Architecture for Scalable Networks" IEEE Comm. Letters 2003
 9. [J10] "Measurement-based Band Allocation in Multiband CDMA" IEEE Trans. Wireless, 2005
 10. [J17] "Estimation of Blocking Probabilities in Cellular Networks with Dynamic Channel Assignment" ACM TOMACS 2002

- Journal Papers:**
- [J1] Krister Jacobsson, Lachlan L. H. Andrew, Ao Tang, Steven H. Low, Håkan Hjalmarsson, "An Improved Link Model for Window Flow Control and Its Application to FAST TCP", to appear in *IEEE Trans Automatic Control* . (Accepted Dec 2007.)
 - [J2] Lachlan L. H. Andrew, Stephen V. Hanly and Rami G. Mukhtar. "Active Queue Management For Fair Resource Allocation in Wireless Networks", *IEEE Trans. Mobile Computing*, 7(2):231–246, Feb 2008.
 - [J3] Moshe Zukerman, Musa Mammadov, Liansheng Tan, Iradj Ouveysi and Lachlan Andrew, "To Be Fair or Efficient or a Bit of Both" *Computers and Operations Research*, accepted July 2006.
 - [J4] Lachlan L. H. Andrew, Stephen V. Hanly, Sammy Chan and Tony Cui, "Adaptive Deterministic Packet Marking" *IEEE Comm. Letters*, 10(11):790–792, Nov 2006.
 - [J5] Tony Cui, Lachlan L. H. Andrew, Moshe Zukerman and Liansheng Tan, "Improving the fairness of FAST TCP to new flows" *IEEE Comm. Letters.*, 10(5):414–416, May 2006.
 - [J6] Kerry Hinton, Peter Farrell, Andrew Zalesky, Lachlan Andrew and Moshe Zukerman, "Automatic Laser Shutdown Implications for All Optical Data Networks" *IEEE J. Lightwave Technology*, 24(2), Feb 2006.
 - [J7] Ji Li, Lachlan L. H. Andrew, Moshe Zukerman, Chuan H. Foh and Marcel Neuts, "Meeting Connectivity Requirements in a Wireless Multihop Network" *IEEE Comm. Letters.*, 10(1):19–21, Jan 2006.
 - [J8] Liansheng Tan, XiaoMei Zhang, Lachlan L. H. Andrew and Moshe Zukerman, "Price-based Max-Min Fair Rate Allocation in Wireless Multi-hop Networks" *IEEE Comm. Letters*, 10(1):31–33, Jan 2006.
 - [J9] Lachlan L. H. Andrew, Moshe Zukerman, Jinsheng Sun, King-Tim Ko and Sammy Chan, "Buffer Sizing for Nonhomogeneous TCP Sources" *IEEE Comm. Letters*, 9(6):567–569, June 2005.
 - [J10] Lachlan L. H. Andrew, "Measurement-based band allocation in multiband CDMA" *IEEE Trans. Wireless*, 4(2):475–483, Mar 2005.
 - [J11] Lachlan L. H. Andrew, "Fast simulation of wavelength continuous WDM networks" *IEEE/ACM Trans. Network.*, 12(4):759–765, Aug 2004.
 - [J12] Chuan Heng Fo, Lachlan Andrew, Elaine Wong and Moshe Zukerman, "FULL-RCMA: A high utilization EPON" *IEEE J. Select. Areas Commun.*, 22(8):1514–1524, Oct 2004.
 - [J13] Felisa J. Vazquez-Abad, Jolyon A. White, Lachlan L. H. Andrew and Rodney S. Tucker, "Does header length affect performance in optical burst switched networks?" *OSA J. Optical Networks*, 3(5):342–353, May 2004.
 - [J14] Lachlan L. H. Andrew, Yuliy M. Baryshnikov, Ed G. Coffman, Jr., Stephen V. Hanly and Jolyon White, "The asymptotics of optimal OBS wavelength assignment" *ACM Sigmetrics: Performance Evaluation Review*, *ACM Press*, 31(2):14–16, Sept 2003.
 - [J15] Rami G. Mukhtar, Stephen V. Hanly and Lachlan L. H. Andrew, "Efficient Internet Traffic Delivery over Wireless Networks" *IEEE Comm. Mag.*, 41(12):46–53, 2003.
 - [J16] Bartek Wydrowski, Lachlan L. H. Andrew and Moshe Zukerman, "MaxNet: A congestion control architecture for scalable networks" *IEEE Commun. Lett.*, 7(10):511–513, Oct 2003.

- [J17] Felisa J. Vazquez–Abad, Lachlan L. H. Andrew and David Everitt, "Estimation of blocking probabilities in cellular networks with dynamic channel assignment" *ACM Trans. Modeling and Computer Simulation*, 12(1):54–81, Jan 2002.
- [J18] Lachlan L. H. Andrew, "Binary output of cellular neural networks with smooth activation" *IEEE Trans. Circuits and Systems I*, 44(9):821–824, Sept 1997.
- [J19] Lachlan L. H. Andrew, "On binary output of cellular neural networks" *Int. J. Circuit Theory Appl.*, 25(2):147–149, 1997.
- [J20] Lachlan L. H. Andrew and M. Palaniswami, "Neural networks for image coding: A review" *Austral. J. Intel. Info. Process. Syst.*, 2(4):10–19, 1996.
- [J21] Lachlan L. H. Andrew and M. Palaniswami, "A unified approach to selecting optimal step lengths for adaptive vector quantizers" *IEEE Trans. Comm*, 44(4):434–439, Apr 1996.
- [J22] Lachlan L. H. Andrew, "Comments on 'On a novel unsupervised competitive learning algorithm for scalar quantization'" *IEEE Trans Neural Networks*, 7(1):254–256, Jan 1996.
- [J23] Lachlan L. H. Andrew, "Improving the robustness of winner–take–all cellular neural networks" *IEEE Trans. Circuits and Systems II*, 43(4):329–334, Apr 1996.

Conference Papers:

- [C1] Ao Tang, Lachlan L. H. Andrew, Krister Jacobsson, Karl H. Johansson, Steven H. Low, Håkan Hjalmarsson, "Window Flow Control: Macroscopic Properties from Microscopic Factors", to appear in *IEEE INFOCOM*, 2008.
- [C2] Krister Jacobsson, Lachlan L. H. Andrew, Ao Tang, Karl H. Johansson, Steven H. Low, Håkan Hjalmarsson, "ACK–Clock Dynamics: Modeling the Interaction between Windows and the Network ", to appear in *IEEE INFOCOM mini-symposium*, 2008.
- [C3] Ji Li, Chuan H. Foh, Lachlan L. H. Andrew and Moshe Zukerman, "Sizes of Minimum Connected Dominating Sets of a Class of Wireless Sensor Networks" to appear in *IEEE Int. Conf. Commun. (ICC)*, 2008.
- [C4] Tao Cui, Lijun Chen, Tracey Ho, Steven H. Low and Lachlan L. H. Andrew, "Opportunistic Source Coding for Data Gathering in Wireless Sensor Networks", in *IEEE Mobile Ad-hoc and Sensor Systems (MASS)*, pp. 1–11. Pisa, Italy, 8–11 Oct 2007. **(Best paper award)**
- [C5] Ao Tang, Krister Jacobsson, Lachlan L. H. Andrew and Steven H. Low, "An Accurate Link Model and Its Application to Stability Analysis of FAST TCP" in *IEEE INFOCOM*, pp. 161–169. Anchorage AK, USA 2007.
- [C6] George S. Lee, Lachlan L. H. Andrew, Ao Tang and Steven H. Low, "WAN–in–Lab: Motivation, Deployment and Experiments" in *Protocols for Fast, Long Distance Networks (PFLDnet)*, pp. 85–90. Marina Del Rey, CA, USA 2007.
- [C7] Thaya Thanabalasingham, Stephen V. Hanly, Lachlan L. H. Andrew and John Papandriopoulos, "Joint Allocation of Subcarriers and Transmit Powers in a Multiuser OFDM Cellular Network" in *Int'l Conference Communication (ICC)*, pp. 269–274. Istanbul, Turkey, Jun 2006.
- [C8] Angiras R. Varma, Chandar Athaudage, Lachlan L. H. Andrew and Jonathan H. Manton, "Phase Noise Compensation for OFDM WLAN Systems Using Superimposed Pilots" in *IEEE Int'l Conf. Commun. Systems*, Singapore, Oct 2006.

- [C9] Angiras R. Varma, Chandar Athaudage, Lachlan L. H. Andrew and Jonathan H. Manton, "Optimal Superimposed Pilot Training for OFDM Channel Estimation" in *Signal Processing Advances in Wireless Communications (SPAWC)*, Jul 2006.
- [C10] Lachlan L. H. Andrew and Stephen V. Hanly, "The Estimation Error of Adaptive Deterministic Packet Marking", in 44th Annual Allerton Conference on Communication, Control and Computing, 2006.
- [C11] Lachlan L. H. Andrew, Stephen V. Hanly and Rami G. Mukhtar, "CLAMP: Active Queue Management at Wireless Access Points" in *European Wireless*, 2005.
- [C12] Lachlan L. H. Andrew, Liangsheng Tan and Moshe Zukerman, "Fairness Comparison of FAST TCP and TCP Vegas" in *Int'l Teletraffic Congress-19*, Beijing, China, 2005.
- [C13] Steven H. Low, Lachlan L. H. Andrew and Bartek P. Wydrowski, "Understanding XCP: Equilibrium and Fairness" in *IEEE INFOCOM*, pp. 1025-1036. Miami, FL, 2005.
- [C14] Duc Nguyen, Jidong Wang, Lachlan L. H. Andrew and Sammy Chan, "MaxNet: A More Efficient Max-Min Fair Allocation Scheme" in *Int'l Teletraffic Congress-19*, Beijing, China, 2005.
- [C15] Lachlan L. H. Andrew, Irena Atov, David Kennedy and Bartek P. Wydrowski "Evaluation of FAST TCP in Low-speed DOCSIS-based Access Networks", In *IEEE Tencon*, Melbourne, Australia, 2005.
- [C16] Liangsheng Tan, XiaoMei Zhang, Lachlan L. H. Andrew and Moshe Zukerman, "Price-based Max-Min Fair Rate Allocation in Wireless Multi-hop Networks", In *IEEE Tencon*, Melbourne, Australia, 2005.
- [C17] Thaya Thanabalasingham, Stephen V. Hanly and Lachlan L. H. Andrew, "Joint Allocation of Transmit Power Levels and Degrees of Freedom to Links in a Wireless Network", in *Australian Communication Theory Workshop (AusCTW) '05*, Brisbane, Australia, 2005.
- [C18] Angiras R. Varma, Lachlan L. H. Andrew, Chandra R. N. Athaudage and Jonathan H. Manton "Iterative Algorithms for Channel Identification Using Superimposed Pilots", in *Australian Communication Theory Workshop (AusCTW) '05*, Brisbane, Australia, 2005.
- [C19] A. A. N. Ananda Kusuma, Lachlan L. H. Andrew and Stephen V. Hanly, "On Routing in CDMA Multihop Cellular Networks" in *IEEE Globecom*, pp. 3063-3067. Dallas, TX, USA, 2004.
- [C20] Bartek P. Wydrowski, Lachlan L. H. Andrew and Iven M. Y. Mareels, "MaxNet: Faster Flow Control Convergence" in *IFIP Conf. Networking 2004, Springer Lecture Notes in Computer Science LNCS 3042*, pp. 588-599, Greece, 2004.
- [C21] Lachlan Andrew, Stephen Hanly and Rami Mukhtar, "CLAMP: A system to enhance the performance of wireless access networks" in *IEEE Globecom*, pp. 4142-4147. San Francisco, CA, USA, 2003.
- [C22] Lachlan L. H. Andrew, Stephen V. Hanly and Rami G. Mukhtar, "CLAMP: Differentiated capacity allocation in access networks" in *IPCCC*, pp. 451-458. 2003.
- [C23] Lachlan L. H. Andrew, Jonathan H. Manton and Duong H. Pham, "Fast simulation of linear communication systems via conditional Monte Carlo analysis" in *Int'l*

- Conf. Information, Communication and Signal Processing*, pp. 888–891. Singapore, 2003.
- [C24] Lachlan L. H. Andrew and Bartek P. Wydrowski, "Performance of networks containing both MaxNet and SumNet links" in *Int'l Worksh. Perf. Modelling Eval. Heterogeneous Networks (HetNets)*, pp. 7/1–7/10. Ilkley, UK, 2003.
- [C25] Chuan H. Foh, Moshe Zukerman, Lachlan L. H. Andrew and Elaine Wong, "FULL-RCMA: A high utilization EPON" in *Opt. Fiber Commun.*, pp. 282–284. 2003.
- [C26] Lachlan Andrew, Stephen Hanly and Rami Mukhtar, "Analysis of a flow control scheme for rate adjustment by managing inflows" in *4th Asian Control Conference*, pp. 47–52. Singapore, 2002.
- [C27] Lachlan L. H. Andrew and Felisa J. Vazquez-Abad, "Filtered Gibbs sampler for estimating blocking in product form networks" in *IASTED Wireless and Optical Communications (WOC'02)*, pp. 527–532. Banff, Canada, 2002.
- [C28] Lachlan L. H. Andrew, "Wavelength-continuous WDM networks with non-uniform service rates" in *IASTED Wireless and Optical Communications (WOC'02)*, pp. 356–359. Banff, Canada, 2002.
- [C29] A. A. N. Ananda Kusuma and Lachlan L. H. Andrew, "Minimum power routing for multihop cellular networks" in *IEEE Globecom*, pp. 31–47. Taipei, Taiwan, 2002.
- [C30] Lachlan L. H. Andrew and Ravindra S. Ranasinghe, "Optimising the polling sequence in embedded round robin WLANs" in *IEEE Int. Conf. Wireless LANs and Home Networks (ICWLHN'01)*, pp. 177–186. Singapore, Dec 2001.
- [C31] Ravindra S. Ranasinghe, Lachlan L. H. Andrew, David A. Hayes and David Everitt, "Scheduling disciplines for multimedia WLANs: Embedded round robin and wireless dual queue" in *Int'l Conf. Commun. (ICC)*, pp. 1243–1248. Helsinki, Finland, June 2001.
- [C32] Brooke E. Shrader, Robert S. Karlsson and Lachlan L. H. Andrew, "Power-control-based band allocation in multiband CDMA" in *IEEE Globecom*, pp. 3306–3310. San Antonio, TX, Nov 2001.
- [C33] Felisa J. Vazquez-Abad and Lachlan L. H. Andrew, "Filtered Gibbs sampler for estimating blocking probabilities in WDM optical networks" in *14th European Simulation Multiconference*, pp. 548–555. Ghent, May 2000.
- [C34] Lachlan L. H. Andrew and Stephen V. Hanly, "Performance of a global congestion measure for CDMA networks" in *Vehicular Technology Conference*, vol. Fall. Amsterdam, The Netherlands, Sept 1999.
- [C35] Lachlan L. H. Andrew, Donald J. B. Payne and Stephen V. Hanly, "Queueing model for soft-blocking CDMA systems," in *Vehicular Technology Conference*, vol. Fall pp. 436–440. Amsterdam, The Netherlands, Sept 1999.
- [C36] Lachlan L. H. Andrew, "Measurement-based band allocation in multiband CDMA" in *IEEE INFOCOM*, pp. 1364–1371. NY, NY, USA, 1999.
- [C37] David A. Hayes, Michael Rumsewicz and Lachlan L. H. Andrew, "Impact of flow control on quality of service driven packet scheduling disciplines" in *IEEE Int'l Conf. Control Appl.*, pp. 1454–1459. Hawaii, USA, 1999.
- [C38] David A. Hayes, Michael Rumsewicz and Lachlan L. H. Andrew, "Quality of service driven packet scheduling disciplines for real-time applications: Looking beyond fairness" in *IEEE INFOCOM*, pp. 405–412. NY, NY, USA, Mar 1999.

- [C39] Ravindra S. Ranasinghe, Lachlan L. H. Andrew and David Everitt, "Impact of polling strategy on capacity of 802.11 based wireless multimedia LANs" in *IEEE Int'l Conf. On Networks (ICON)*, pp. 96–103. Brisbane, Australia, 1999.
- [C40] Ravindra S. Ranasinghe, Lachlan L. H. Andrew and David Everitt, "Distributed contention-free traffic scheduling in IEEE 802.11 multimedia networks" in *IEEE Worksh. on Local and Metropolitan Area Networks*, pp. 18–28. 21–24 Nov 1999.
- [C41] Ravindra S. Ranasinghe, David Everitt and Lachlan L. H. Andrew, "Fair queueing scheduler for IEEE 802.11 based wireless multimedia networks" in *Mobility, Multiaccess and Teletraffic (MMT)*, Sydney, Australia, 1999.
- [C42] Lachlan L. H. Andrew and A. A. N. Ananda Kusuma, "Generalised analysis of a QoS-aware routing algorithm," in *IEEE Globecom*, pp. 1–6. Sydney, Australia, Nov 1998.
- [C43] Lachlan L. H. Andrew and Su-Hsien Kuan, "Improving the robustness of fuzzy logic ATM ABR rate control for large round trip times" in *Int'l Conf. Intelligent Signal Processing and Communications*, Melbourne, Australia, Nov 1998.
- [C44] J. Fransson, M. Johansson, M. Roughan, L. Andrew and M.A. Summerfield, "Design of a medium access control protocol for a WDMA/TDMA photonic ring network" in *IEEE Globecom*, pp. 307–312. Sydney, Australia, Nov 1998.
- [C45] J. Fransson, M. Johansson, M. Roughan, L. Andrew and M.A. Summerfield, "Performance of a medium access control protocol for a WDMA/TDMA photonic ring network" in *3rd Optoelectronics and Communications Conference (OECC'98)*, Chiba, Japan, 12–16 Jul 1998.
- [C46] Su-Hsien Kuan and Lachlan L. H. Andrew, "Performance of fuzzy logic ABR rate control with large round trip times" in *IEEE Globecom*, pp. 2464–2468. Sydney, Australia, Nov 1998.
- [C47] Lachlan L. H. Andrew, "Subband prediction by edge reconstruction" in *Int'l Conf. Telecomm.*, pp. 561–566. Melbourne, Australia, 1997.
- [C48] Lachlan L. H. Andrew, "Redundancy in Quantisers for Noisy Channels", in Proc. IEEE TENCON '97, pp. 117–120, Brisbane, Australia, 1997.
- [C49] Lachlan L. H. Andrew, "Optimal Reconstruction from a Fixed Quantiser over a Noisy Channel", in *Asia Pacific Conf. Commun.*, pp. 523–527, Sydney, Australia, 1997.
- [C50] Lachlan L. H. Andrew, "Neural networks for adaptive image sequence vector quantisation" in *Picture Coding Symp.*, pp. 569–573. Melbourne, Australia, 1996.
- [C51] Lachlan L. H. Andrew, "New adaptive image sequence coding scheme using Kohonen's SOFM" in *Int'l Conf. Neural Network*, vol. IV pp. 2071–2076. Perth, WA, Australia, 1995.
- [C52] Lachlan L. H. Andrew and M. Palaniswami, "A study on the effect of neighbourhood functions for noise robust image vector quantisation" in *Int'l Conf. Neural Networks*, vol. IV pp. 4159–4162. Orlando, FL, USA, 1994.
- [C53] Lachlan L. H. Andrew, "Neuron Splitting for Efficient Feature Map Formation", in Proc. Aust. New Zealand Conf. Intell. Info. Systems '94, pp. 10–13, Brisbane, Australia, 1994.

PROFESSIONAL ACTIVITIES

IEEE senior member; Participant in IRTF's ICCRG, TMRG

Conference organizing:

- Organized Caltech's "TCP evaluation round table" in November 2007.
- Co-chair and TPC co-chair of Int'l Workshop on Protocols for Fast Long Distance Networks (PFLDnet2007). Steering committee and TCP co-chair PFLDnet2008.
- Member of organising committee for ATNAC 2003, 2004.
- Member of TPC of ATNAC 2003–2006 and numerous IASTED conferences.

Referee for:

- IEEE/ACM Transactions on Networks
- IEEE Transactions on Automatic Control
- IEEE Journal on Selected Areas in Communications
- IEEE Transactions on Wireless
- IEE Proceedings on Communications
- IEEE Communications Letters
- Computer Networks Journal
- Computer Communications
- Systems and Control Letters
- Fuzzy Sets and Systems
- IEEE Transactions on Neural Networks
- ACM Computing Surveys Review
- IEEE Transactions on Mobile Computing
- IEEE Transactions of Vehicular Technology

REFERENCES

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