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1 Research Interest

Systems support for multimedia applications: video streaming, graphics streaming, networked virtual environment.

2 Current Position

Associate Professor, National University of Singapore.

3 Appointments

- 2010-now Associate Professor, National University of Singapore.
 - 2002-2009 Assistant Professor, National University of Singapore.
 - 2001-2002 Postdoctoral Research Engineer, University of California at Berkeley.
 - 2001-2002 Fellow, National University of Singapore.
 - 1996-2001 Senior Tutor, National University of Singapore.
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4 Education

- 1992-1996 B.Sc. in Information Systems and Computer Science, National University of Singapore.
 - 1996-2001 Ph.D. in Computer Science, Cornell University, Ithaca, New York.
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5 Publications

Journal Articles

- TOMCCAP Pavel Korshunov and **Wei Tsang Ooi**, “Video Quality for Face Detection, Recognition, and Tracking” To appear in ACM Transactions on Multimedia Computing, Communications and Applications
- TOMCCAP Wei Cheng, **Wei Tsang Ooi**, Sebastien Mondet, Romulus Grigoras, and Geraldine Morin, “Modeling Progressive Mesh Streaming: Does Data Dependency Matter?” ACM Transactions on Multimedia Computing, Communications and Applications, 7(2), February 2011, Article 10.
- EJOR Tsung-Sheng Chang, Yat-Wah Wan, **Wei Tsang Ooi**, “A Stochastic Dynamic Traveling Salesman Problem with Hard Time Windows,” European Journal of Operational Research, 198(3), November 2009, 748-759.
- MTAP Huiguang Liang, Ransi Nilaksha De Silva, **Wei Tsang Ooi**, Mehul Motani, “Avatar Mobility in User-created Networked Virtual Worlds: Measurements, Analysis, and Implications,”

Multimedia Tools and Applications 45, October 2009, 163–190.

TOMCCAP Sebastien Mondet, Wei Cheng, Geraldine Morin, Romulus Grigoras, Frederic Boudon, and **Wei Tsang Ooi**, “Compact and Progressive Plant Models for Streaming in Networked Virtual Environments” ACM Transactions on Multimedia Computing, Communications and Applications, 5(3), August 2009, 1–22.

CSVT Hang Yu, Ee-Chien Chang, **Wei Tsang Ooi**, Mun Choon Chan, and Wei Cheng, “Integrated Optimization of Video Server Resource and Streaming Quality over Best-effort Network,” IEEE Transactions on Circuits and Systems for Video Technology, 19(3), March 2009, 374–385.

COMNET Y.C. Tay, Dinh Nguyen Tran, E.Y. Liu, **Wei Tsang Ooi**, and Robert Morris, “Equilibrium Analysis Through Separation of User and Network Behavior”, Computer Networks, 52(18), December 2008, 3405–3420.

Conference Articles

MMSYS’11 Ngo Quang Minh Khiem, Guntur Ravindra, and **Wei Tsang Ooi**, “Adaptive Encoding of Zoomable Video Streams based on User Access Pattern” in Proceedings of 2nd ACM Multimedia Systems Conference, 23-25 February 2011, Santa Clara, California, USA, 211–222.

SAPMIA’10 Axel Carlier, Ravindra Guntur, **Wei Tsang Ooi**, “Towards Characterizing Users’ Interaction with Zoomable Video,” in Proceedings of the International Workshop on Social, Adaptive, and Personalized Multimedia Interaction and Access (SAPMIA), 29 October 2010, Florence, Italy.

MM’10 Axel Carlier, Vincent Charvillet, **Wei Tsang Ooi**, Romulus Grigoras, and Geraldine Morin, “Crowdsourced Automatic Zoom and Scroll for Video Retargeting,” in Proceedings of 18th ACM International Multimedia Conference, 25-30 October 2010, Florence, Italy, 201–211.

NOSSDAV’10 Ransi Nilaksha De Silva, Wei Cheng, **Wei Tsang Ooi**, and Shengdong Zhao, “Towards understanding user tolerance to network latency and data rate in remote viewing of progressive meshes,” in Proceedings of the 20th International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV), 2-4 June 2010, Amsterdam, Netherland.

MMSYS’10 Ngo Quang Minh Khiem, Guntur Ravindra, Axel Carlier, and **Wei Tsang Ooi**, “Supporting Zoomable Video Streams via Dynamic Region-of-Interest Cropping,” in Proceedings of 1st ACM Multimedia Systems Conference, 22-23 February 2010, Scottsdale, Arizona. 259–270.

P2PNVE’09 Mo-Che Chan, Jehn-Ruey Jiang, Chao-Wei Hung, Wei Tsang Ooi, “Group-Based Peer-to-Peer 3D Streaming Authentication,” in Proceedings of the Third International Workshop on

Peer-to-Peer Networked Virtual Environments, 9 - 11 December 2009, Shenzhen, China.

- P2PNVE'09 Markus Esch, **Wei Tsang Ooi**, Ingo Scholtes, "Evaluation Of The HyperVerse Avatar Management Scheme Based On The Analysis Of Second Life Traces", in Proceedings of the Third International Workshop on Peer-to-Peer Networked Virtual Environments, 9 - 11 December 2009, Shenzhen, China.
- MM'09 Wei Cheng, Dan Liu, and **Wei Tsang Ooi**, "Peer-Assisted View-Dependent Progressive Mesh Streaming," in Proceedings of 17th ACM International Multimedia Conference, 19-24 October 2009, Beijing, China. 441-450.
- MM'09 Ransi Nilaksha De Silva, Wei Cheng, Dan Liu, and **Wei Tsang Ooi**, Shengdong Zhao, "Towards Characterizing User Interaction with Progressively Transmitted 3D Meshes," in Proceedings of 17th ACM International Multimedia Conference (Short Paper), 19-24 October 2009, Beijing, China. 881-884.
- MM'09 Andra Doran, Sebastien Mondet, Romulus Grigoras, Geraldine Morin, **Wei Tsang Ooi**, and (Demo) Frederick Boudon, "A Demonstration of MobiTree: Progressive 3D Tree Models Streaming on Mobile Clients," in Proceedings of 17th ACM International Multimedia Conference (Demo Paper), 19-24 October 2009, Beijing, China. 955-956.
- P2PNVE'08 Huiguan Liang, Mehul Motani, and **Wei Tsang Ooi**, "Textures in Second Life: Measurement and Analysis", in Proceedings of the Second International Workshop on Peer-to-Peer Networked Virtual Environments, 8 - 10 December 2008, Melbourne, Australia.
- MM'08 Sebastien Mondet, Wei Cheng, Geraldine Morin, Romulus Grigoras, Frederic Boudon, and **Wei Tsang Ooi**, "Streaming of Plants in Distributed Virtual Environments," in Proceedings of 16th ACM International Multimedia Conference, 27-31 October 2008, Vancouver, Canada. 1-10. (Best Paper Award)
- NOSSDAV'08 Wei Cheng, **Wei Tsang Ooi**, "Receiver-Driven View-Dependent Streaming of Progressive Mesh," In Proceedings of the 18th International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV), 28-30 May 2008, Braunschweig, Germany. 9-14.
- MM'07 Wei Cheng, **Wei Tsang Ooi**, Sebastian Mondet, Romulus Grigoras, Geraldine Morin, "An Analytical Model for Progressive Mesh Streaming" in Proceedings of 15th ACM International Multimedia Conference, 24-29 September 2007, Augsburg, Germany. 737-746.
- DAC'07 Balaji Raman, Samarjit Chakraborty, **Wei Tsang Ooi**, and Santanu Dutta, "Reducing Data-Memory Footprint of Multimedia Applications by Delay Redistribution," in Proceedings of Design Automation Conference (DAC), 4-8 June 2007, San Diego, California, USA. 738-743.
- INFOCOM'07 Lin Ma, **Wei Tsang Ooi**, "Congestion Control in Distributed Media Streaming," in Pro-

ceedings of the 26th Annual IEEE Conference on Computer Communications (INFOCOM 2007), 6-12 May 2007, Anchorage, Alaska, USA. 1397–1405.

- MMCN'07 Tao Zhu, Pavel Korshunov, Bing Liu, **Wei Tsang Ooi**, “Plasma: A Scripting Language for Processing Media Streams,” in Proceedings of ACM/SPIE Multimedia Computing and Networking (MMCN), 28 January - 1 February 2007, San Jose, CA.
- MOBICOM'06 Vikram Srinivasan, Mehul Motani, **Wei Tsang Ooi**, “Analysis and Implications of Student Contact Patterns Derived from Campus Schedules,” in Proceedings of the Twelfth Annual ACM International Conference on Mobile Computing and Networking (MobiCom), 23-29 September 2006, Los Angeles, CA. 86–97.
- DAC'06 Yan Gu, Samarjit Chakraborty, **Wei Tsang Ooi**, “Games are Up for DVFS”, in Proceedings of Design Automation Conference (DAC), 24-28 July 2006, San Francisco, CA. 598–603.
- PAM'06 Dinh Nguyen Tran, **Wei Tsang Ooi**, Y.C. Tay, “SAX: A Tool for Studying Congestion-induced Surfer Behavior”, in Proceedings of Passive and Active Measurement Conference, 30-31 March, 2006, Adelaide, Australia. 51–60.
- MM'05 Pavel Korshunov, **Wei Tsang Ooi**, “Critical Video Quality for Distributed Automated Video Surveillance,” in Proceedings of 13th ACM International Multimedia Conference, 6-12 November 2005, Singapore, Singapore. 151–160.
- ICCCN'05 Yan Gu, **Wei Tsang Ooi**, “Packetization of 3D Progressive Meshes for Streaming over Lossy Networks,” in Proceedings of the 14th International Conference on Computer Communications and Networks (ICCCN), 17-19 October 2005, San Diego, CA. (Best Paper Candidate)
- ESTIMedia'05 Yanhong Liu, Samarjit Chakraborty, **Wei Tsang Ooi**, Ashish Gupta, Subramanian Mohan, “Cost-Quality Tradeoffs in MPEG-4 Decoding on Resource-Constrained Devices,” in Proceedings of IEEE 3rd Workshop on Embedded Systems for Real-Time Multimedia (ESTIMedia 2005), 22-23 September 2005, New York, NY. 129–134.
- NOSSDAV'05 Lin Ma, **Wei Tsang Ooi**, “Retransmission in Distributed Media Streaming,” In Proceedings of the 15th International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV), 12-14 June 2005, Stevenson, WA. 117–122.
- NOSSDAV'05 Balaji Raman, Samarjit Chakraborty, **Wei Tsang Ooi**, “Meeting CPU Constraints by Delaying Payout of Multimedia Tasks,” In Proceedings of the 15th International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV), 12-14 June 2005, Stevenson, WA. 165–170.
- DAC'05 Yanhong Liu, Samarjit Chakraborty, **Wei Tsang Ooi**, “Approximate VCCs: A New Characterization of Multimedia Workloads for System-level MpSoC Design,” in the Proceedings of 42th Design Automation Conference (DAC), 13-17 June 2005, Anaheim, CA. 248–253. (Best Paper Candidate)

- ICDCS'05 Satish Verma, **Wei Tsang Ooi**, "Controlling Gossip Protocol Infection Pattern Using Adaptive Fanout," in the Proceedings of 25th International Conference on Distributed Computing Systems (ICDCS), 6-9 June 2005, Columbus, Ohio. 665–674.
- MMCN'05 **Wei Tsang Ooi**, "Dagster: Contributor Aware End-Host Multicast for Media Streaming in Heterogeneous Environment," In the Proceedings of ACM/SPIE Multimedia Computing and Networking (MMCN), 19-20 January 2005, San Jose, CA.
- RTSS'04 Yanhong Liu, Alexander Maxiaguine, Samarjit Chakraborty, **Wei Tsang Ooi**, "Processor Frequency Selection in Energy-Aware SoC Platform Design for Multimedia Applications," in Proceedings of The 25th IEEE International Real-Time Systems Symposium (RTSS), 5-8 December 2004, Lisbon, Portugal. 336–345.
- ESTIMedia'04 Alexander Maxiaguine, Yanhong Liu, Samarjit Chakraborty, **Wei Tsang Ooi**, "Identifying Representative Workloads in Designing MpSoC Platforms for Media Processing," In Proceedings of The 2nd Workshop on Embedded Systems for Real-Time Multimedia (ESTIMedia), 6-7 September 2004, Stockholm, Sweden. 41–46.
- ICME'04 Zixiang Yang, **Wei Tsang Ooi**, Qibin Sun, "Hierarchical, Non-uniform Locality Sensitive Hashing and Its Application to Video Identification," In Proceedings of International Conference on Multimedia and Expo (ICME), June 2004, Taipei, Taiwan. 743–746.
- ICME'04 Yuan Li, **Wei Tsang Ooi**, "Distributed Construction of Resource-Efficient Overlay Tree by Approximating MST," In Proceedings of International Conference on Multimedia and Expo (ICME), June 2004, Taipei, Taiwan. 1507–1510.
- ICME'04 Vu Thanh Nguyen, Ee-Chien Chang, **Wei Tsang Ooi**, "Layered Coding with Good Allocation Outperforms Multiple Description Coding over Multiple Paths," in Proceedings of International Conference on Multimedia and Expo (ICME), June 2004, Taipei, Taiwan. 1067–1070.
- MMCN'04 **Wei Tsang Ooi**, Peter Pletcher and Larry Rowe, "Indiva: A Middleware for Managing Distributed Media Environment," in Proceedings of SPIE/ACM Multimedia Computing and Networking (MMCN), January 2004, Santa Clara, CA.
- MM'01 **Wei Tsang Ooi**, Robbert van Renesse, "Distributing Media Transformation Over Multiple Media Gateways," in Proceedings of the 9th ACM International Multimedia Conference, September 2001, Ottawa, Canada. 159–168.
- MM'00 **Wei Tsang Ooi**, Robbert van Renesse, "An Adaptive Protocol for Locating Media Gateways," in Proceedings of the 8th ACM International Multimedia Conference, October 2000, Los Angeles, CA. 137–145.
- NOSSDAV'00 **Wei Tsang Ooi**, Robbert van Renesse, Brian Smith, "Design and Implementation of Pro-

grammable Media Gateways,” In Proceedings of the 10th International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV 2000), June 26-28 00, Chapel Hill, NC.

MMCN’99 **Wei Tsang Ooi**, Brian Smith et al., “Dali: A Multimedia Software Library,” In Proceedings of 1999 SPIE Multimedia Computing and Networking, 25 - 27 Jan 99, San Jose, CA.

Thesis

Design and Implementation of Distributed Programmable Media Gateways
Wei Tsang Ooi, Ph.D. Thesis, August 2001.

Books

Rajeev Shorey, A. Ananda, Mun Choon Chan, Wei Tsang Ooi, “Mobile, Wireless, and Sensor Networks: Technology, Applications, and Future Directions,” Wiley-IEEE Press, ISBN 978-047178161, March 2006.

Patent

Brian Smith, Wei Tsang Ooi, “Web-based video-editing method and system using a high-performance multimedia software library,” U.S. Patent 6,320,600.

Others

Ooi Wei Tsang, Tan Tuck Choy, “A Survey on Awareness and Attitudes towards Plagiarism among Computer Science Freshmen”, CDTLink, November 2005, Vol. 9, No. 3.

Ooi Wei Tsang, “Avoiding ‘Death by PowerPoint’ and Its Impact on Teaching and Learning”, CDTLink, August 2007, Vol. 11, No. 2.

6 Grants

PI

- 2010 “Fast Rendering of 3D Objects on Mobile Devices,”
MDA-GAMBIT, Jan 2010 – Dec 2010, \$88,320.
- 2008-2010 “Magnifiable Media Streaming,”
AcRF Grant, Dec 2008 – Dec 2010, \$297,600, R-252-000-368-112.
- 2007-2009 “3D Object Streaming,”
\$71,000, AcRF Grant, Sep 2007 – Sep 2009, R-252-000-306-112.
- 2005-2007 “Goal-Oriented Video Streaming,”
\$87,800, AcRF Grant, Aug 2005 – Aug 2007, R252-000-230-112.
- 2002-2003 “Towards A System for Distributed Processing of RTP-based Multimedia Streams,”

\$16,520, AcRF Start-up grant, Nov 2002 – Nov 2003, R252-000-133-112.

Co-PI

- 2007-2009 “Deployment and Evaluation of an Unplanned 802.11x Wireless Mesh Network,”
\$102,000, AcRF Grant, Sep 2007 – Sep 2009, R-252-000-311-112, (PI: Ben Leong)
- 2004-2006 “A System for Remote Monitoring,”
\$75,500, AcRF Grant, Jan 2004 - Jan 2006, R252-000-182-112, (PI: Ee-Chien Chang).
- 2004-2005 “A Model for Analyzing the Interaction between Bandwidth Demand and Supply,”
\$55,000, AcRF Grant, Feb 2004 - Feb 2005, (PI: Y.C. Tay).
- 2002 Equipment Fund for Research FY 2002, awarded Jan 2003, \$200K. (PI: Pung Hung Keng)

Collaborators

- 2010-2012 Collaborator for MOE IF Grant, \$310,600, “Teacher-Customisable Onlien Game Profiler of Learning Styles”, MOE2009-IF-1-036.
 - 2005 Collaborator for ARF Grant, (ICITI) \$122,000, “PeopleNet: Design and Analysis of a Wireless Virtual Social Network”.
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7 Awards

- 2008 National University of Singapore Annual Teaching Excellence Award
 - 2008 School of Computing Teaching Excellence Award
 - 2008 Best Paper, ACM Multimedia 2008
 - 2006 School of Computing Teaching Excellence Award
 - 2006 Best Paper Candidate, CODES+ISS
 - 2005 Best Paper Candidate, IEEE Design Automation Conference (DAC)
 - 2005 Best Paper Candidate, ICCCN
 - 2004 Among 20 winners of IBM Linux Scholar Challenge
-

8 Teaching

- 2002-2003 CS1102 Data Structure and Algorithms
 - 2003-2006 CS5248 Systems Support for Continuous Media
 - 2003-2004 CS2281 UNIX Programming
 - 2004-2005 CS3233 Competitive Programming
 - 2005-2006 CS2105 Introduction to Computer Networks
 - 2006-2009 CS4344 Networked and Mobile Games
 - 2007-2009 CS5229 Advanced Computer Networks
 - 2010 CS2106 Introduction to Operating Systems
 - 2011 CS2105 Introduction to Computer Networks
-

9 Graduated Students

- 2004 Li Qingrui, M.Sc., ST Microelectronics, Singapore
Thesis: Modified Work Stealing for Distributed Processing of Multimedia Streams on a Cluster.
- 2004 Li Yuan, M.Sc., IBM, China.
Thesis: Distributed Construction of Minimum Spanning Tree on an Overlay Network
- 2004 Wang Na, M.Sc., Motorola, China.
Thesis: Efficient Classification of RTP Packets.
- 2005 Pham Viet Thang¹, M.Sc., Oracle, Vietnam.
Thesis: Quality-driven Sensor Selection in Target Tracking
- 2007 Liu Yanhong², Ph.D., Verimag, France.
Thesis: System-level Modeling and Analysis of Multimedia-SoC Platforms.
- 2008 Ma Lin, Ph.D., Macquarie Bank, Singapore.
Thesis: Protocols and Techniques for Multi-source Streaming.
- 2010 Satish Verma, Ph.D., Samsung, Korea.
Thesis: Techniques for Improving the Predictability and Message Efficiency of Gossip Protocols
- 2010 Balaji Raman³, Ph.D., Ecole Polytechnique, France.
Thesis: Application-specific Workload Shaping in Resource-Constrained Media Players
- 2010 Wei Cheng, Ph.D.
Thesis: Streaming of High-Resolution Progressive Meshes Over the Internet
- 2011 Pavel Korshunov, Ph.D. (expected)
Thesis: Video Quality for Video Analysis
-

10 Professional Services

Steering Committee

MMVE International Workshop on Massively Multiuser Virtual Environments (2009 - now)

¹co-supervision with Jit Biswas, *I²R*

²co-supervision with Samarjit Chakraborty

³co-supervision with Samarjit Chakraborty

Workshop Co-Chair

- 2009 The 2nd International Workshop on Massively Multiuser Virtual Environments (MMVE 2009)
- 2009 The 19th International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV 2009)

Technical Program Co-Chair

- 2011 The 10th Annual Workshop on Network and Systems Support for Games (NetGames 2010)

Treasurer

- 2005 ACM International Conference on Multimedia

Registration Chair

- 2005 ACM International Conference on Multimedia

Session Chair

- 2004 International Workshop on Advanced Image Technology (IWAIT)
- 2004 International Conference on Networks (ICON)
- 2005 ACM/SPIE Multimedia Computing and Networking (MMCN)
- 2007 ACM International Conference on Multimedia (MM)
- 2007 ACM/SPIE Multimedia Computing and Networking (MMCN)
- 2008 International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV)
- 2008 ACM International Conference on Multimedia (MM)

Publicity Co-Chair

- 2008 ACM/SPIE Multimedia Computing and Networking (MMCN)
- 2007 ACM/SPIE Multimedia Computing and Networking (MMCN)
- 2007 International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV)
- 2006 ACM/SPIE Multimedia Computing and Networking (MMCN)

Program Committee Members

- 2012 International Multimedia Modeling Conference (MMM)
- 2011 ACM Multimedia Systems (MMSYS)
- 2011 IEEE International Conference on Multimedia and Expo (ICME) (Track Co-Chair, Interac-

- tion 3D Media and Immersive Environments)
- 2011 ACM International Conference on Multimedia (MM) (Area Co-Chair, Multimedia Systems and Middleware)
 - 2011 The 6th International Conference on Foundations of Digital Games (FDG)
 - 2011 International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV)
 - 2011 The 5th International Workshop on Peer-to-Peer Networked Virtual Environments (P2P-NVE)
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- 2010 ACM International Conference on Multimedia (MM) (Meta TPC Member)
 - 2010 ACM Multimedia Systems (MMSYS)
 - 2010 International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV)
 - 2010 Workshop on Network and Systems Support for Games (NetGames)
 - 2010 The 4th International Workshop on Peer-to-Peer Networked Virtual Environments (P2P-NVE)
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- 2009 ACM International Conference on Multimedia (MM)
 - 2009 ACM/SPIE Multimedia Computing and Networking (MMCN)
 - 2009 International Multimedia Modeling Conference (MMM)
 - 2009 Workshop on Network and Systems Support for Games (NetGames)
 - 2009 The 3rd International Workshop on Peer-to-Peer Networked Virtual Environments (P2P-NVE)
-
- 2008 ACM International Conference on Multimedia (MM)
 - 2008 ACM/SPIE Multimedia Computing and Networking (MMCN)
 - 2008 International Multimedia Modeling Conference (MMM)
 - 2008 International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV)
 - 2008 Workshop on Network and Systems Support for Games (NetGames)
 - 2008 Passive and Active Measurement Conference (PAM)
 - 2008 The 2nd International Workshop on Peer-to-Peer Networked Virtual Environments (P2P-NVE)
-
- 2007 ACM International Conference on Multimedia (MM)
 - 2007 ACM/SPIE Multimedia Computing and Networking (MMCN)
 - 2007 International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV)
 - 2007 Workshop on Network and Systems Support for Games (NetGames)
 - 2007 International Multimedia Modeling Conference (MMM) (Area Chair)
 - 2007 IEEE International Conference on Multimedia and Expo (ICME)
 - 2007 IEEE International Symposium on Multimedia (ISM)
 - 2007 IEEE International Symposium on a World of Wireless Mobile and Multimedia Networks (WoWMoM)

- 2006 ACM International Conference on Multimedia (MM)
- 2006 ACM/SPIE Multimedia Computing and Networking (MMCN)
- 2006 International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV)
- 2006 IEEE International Conference on Multimedia and Expo (ICME)
- 2006 IEEE International Symposium on a World of Wireless Mobile and Multimedia Networks (WoWMoM)

- 2005 ACM International Conference on Multimedia (MM)
- 2005 ACM/SPIE Multimedia Computing and Networking (MMCN)
- 2005 International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV)
- 2005 IEEE International Conference on Multimedia and Expo (ICME)
- 2005 IEEE International Symposium on a World of Wireless Mobile and Multimedia Networks (WoWMoM)

- 2004 ACM International Conference on Multimedia (MM)
- 2004 IEEE International Conference on Multimedia and Expo (ICME)
- 2004 IEEE International Conference on Distributed Computing Systems (ICDCS)
- 2004 International Workshop on Broadband Wireless Multimedia: Algorithms, Architectures and Applications (BroadWIM)

- 2003 ACM International Conference on Multimedia (MM)
- 2003 International World Wide Web Conference (WWW)

Editor Board Member

- 2006-now Academy Publisher, Journal of Multimedia (JMM)
- 2008-now Inderscience Publisher, Journal of Advanced Media and Communication (IJAMC)

Journal Reviewers

- IEEE Journal on Selected Areas in Communications
- IEEE Transaction of Multimedia
- IEEE Transactions on Circuits and Systems for Video Technology
- IEEE Network
- ETRI Journal
- ACM/Springer Multimedia Systems Journal
- ACM Transaction of Multimedia Computing, Communications and Applications
- Journal of System and Software

Guest Co-Editor

- 2008 IEEE Transactions on Multimedia: Special Issue on Multimedia Applications in Mobile/Wireless Context
 - 2009 ACM/Springer Multimedia Systems Journal: Special Issue on NOSSDAV 2009
-

11 University Services

- 2003-2009 Member of Graduate Studies Committee
- 2005-now Honorary Secretary, National Olympiad in Informatics (NOI)
- 2005-now Member of HYP Committee
 - 2007 Honorary Secretary, Algo*Mania
- 2007-now USENIX Campus Representative
- 2009-now Assistant Curriculum Chair (Department of Computer Science)