

Yeh-Ching Chung, Professor  
School of Science and Engineering, Chinese University of Hong Kong in Shenzhen  
Shenzhen, Guangdong, China  
+86-185-7673-9791  
ychung@cuhk.edu.cn

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#### Research Interests

- Cloud-Fog Computing: Virtualization Techniques (CPUs, GPUs, Memory, Storage, and Network), Cloud-RAN Design for 5G/IoT Networks
  - Big Data: Applications (Agriculture, Oil Exploration, and Large-Scale Software System Optimizations), Graph Computing for Association Rule Mining, and Deep learning for Medical Image Processing
  - Embedded Systems: Tool-Chain for Heterogeneous System Architecture (Compilers, Emulators, and Debuggers), Virtualization for Heterogeneous System Architecture, Embedded Virtual Platform
  - Parallel and Distributed Systems: Parallelizing Compilers, Parallel I/O and File Systems, P2P, HLA, and Grid Computing
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#### Education

- Ph.D. in Computer and Information Science (December 1992), Syracuse University
  - M.S. in Computer Science (December 1988), Syracuse University
  - B.S. in Computer Science (June 1983), Chung-Yuan Christian University
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#### Experience

- Professor – Department of Computer Science, National Tsing Hua University, Hsinchu, Taiwan 30013, ROC (August 2002 – January 2016)
- Deputy Director – Library, National Tsing Hua University, Hsinchu, Taiwan 30013, ROC (December 2003 – July 2012)
- Deputy Director – Computer and Communication Research Center, National Tsing Hua University, Hsinchu, Taiwan 30013, ROC (Since August 2008)
- Director General – Taiwan Association of Cloud Computing (March 2007 – February 2011)
- Chairman – Department of Information Engineering and Computer Science, Feng Chia University, Taichung, Taiwan 407, ROC (August 1998 – July 2001)
- Professor – Department of Information Engineering and Computer Science, Feng Chia University, Taichung, Taiwan 407, ROC (July 1999 – July 2002)
- Associate Professor – Department of Information Engineering and Computer Science, Feng Chia University, Taichung, Taiwan 407, ROC (August 1992 – June 1999)
- Director – Networking Division, Computer Center, Feng Chia University, Taichung,

Taiwan 407, ROC (January 1994 – July 1997)

- Director – Education Division, Computer Center, Feng Chia University, Taichung, Taiwan 407, ROC (August 1993 – December 1993)

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#### Professional Societies Membership

- IEEE Senior Member, IEEE Computer Society
- ACM, ACM SIGBED
- Taiwan Association Cloud Computing (TACC)

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#### Grants (Since 2003)

- A Fusion of SQL and NoSQL Databases for Big Data Applications (Guangdong Province)  
Date of the award: October 2016 (2 years)  
Amount of the award: RMB 1,000,000
- A High-Performance Big Data Analytical Platform Based on Graph Computing (Shenzhen City Brach Committee)  
Date of the award: June 2016 (2 years)  
Amount of the award: RMB 1,000,000
- Smart City (MoST)  
Date of the award: August 2014 (3 years)  
Amount of the award: NT\$5,000,000 (with CT King et al)
- 5G/ToT Cloud Platform (ITRI)  
Date of the award: October 2014 (1.5 years)  
Amount of the award: NT\$2,000,000
- High-Performance Big Data Appliance (NSC)  
Date of the award: February 2014 (1 year)  
Amount of the award: NT\$8,000,000
- A Hybrid Just-in-Time Compilation for Android System (NSC)  
Date of the award: August 2013 (1 year)  
Amount of the award: NT\$800,000
- The Automatic Workflow Deployment on Cloud Platform (III)  
Date of the award: April 2013 (1 year)  
Amount of the award: NT\$800,000
- Virtualization Techniques for ARM Processors (NSC)  
Date of the award: December 2012 (4 years)  
Amount of the award: NT\$26,000,000
- Cloud Platforms for HPC Applications (Quanta Computer Corporation)  
Date of the award: August 2012 (1 year)

Amount of the award: NT\$7,900,000

- Distributed File System (NSC)  
Date of the award: August 2012 (1 year)  
Amount of the award: NT\$761,000
- DCloud - A Distributed Cloud Middleware (Delta Electronic Corporation)  
Date of the award: August 2011 (3 years)  
Amount of the award: NT\$36,000,000
- Development of HLA-based Simulation System using Distributed Computing Techniques (NSC)  
Date of the award: January 2011 (1 year)  
Amount of the award: NT\$797,000
- UniCloud: A Distributed Cloud Computing Middleware (NSC)  
Date of the award: August 2010 (1 year)  
Amount of the award: NT\$1,349,000
- UniCloud-Subproject C1: Storage Virtualization (NSC)  
Date of the award: August 2010 (1 year)  
Amount of the award: NT\$945,000
- A Volunteer Computing System for Computer Games and its Applications (NSC)  
Date of the award: August 2010 (3 years)  
Amount of the award: NT\$2,528,000 (with I.C. Wu et al.)
- The Design of Desktop Grids in the Volunteer Computing System (NSC)  
Date of the award: August 2010 (3 years)  
Amount of the award: NT\$2,206,000 (with I.C. Wu)
- Ontology on Monte Carlo Tree Search and Applications (NSC)  
Date of the award: January 2010 (3 years)  
Amount of the award: NT\$7,181,000 (with C.S. Lee)
- A P2P HLA RTI Design (NSC)  
Date of the award: January 2009 (1 year)  
Amount of the award: NT\$851,000
- Home-Grid: A Pervasive P2P Based Personal Health-Care Grid System (NSC)  
Date of the award: November 2008 (3 years)  
Amount of the award: NT\$20,171,000
- NTHU-MTK Embedded System Lab (MediaTek Corporation)  
Date of the award: August 2008 (5 years)  
Amount of the award: NT\$60,000,000 (with J.M. Shyu)
- ESL Based Developing and Verification Environment for Embedded Multicore Systems (NSC)  
Date of the award: August 2008 (2 years)

Amount of the award: NT\$3,226,000 (with J.M. Shyu)

- Pisces: A P2P Meta-Grid System (NSC)  
Date of the award: August 2007 (3 years)  
Amount of the award: NT\$3,260,000
- Virtual Battlefield (Chung-Shang Institute of Science and Technology)  
Date of the award: January 2007 (2 years)  
Amount of the award: NT\$4,342,000
- A Wireless Sensor Network for Landslides Monitoring (NSC)  
Date of the award: November 2006 (3 years)  
Amount of the award: NT\$12,884,000 (with Pai Chou et al.)
- MultiFed – A Scalable HLA RTI System (Chung-Shang Institute of Science and Technology)  
Date of the award: January 2006 (3 years)  
Amount of the award: NT\$4,220,000
- Medicare Grid – A Grid Based E-health System (NSC)  
Date of the award: November 2005 (3years)  
Amount of the award: NT\$20,802,000
- Design a Fat-Tree Based Cluster System (NSC)  
Date of the award: August 2005 (2years)  
Amount of the award: NT\$1,221,000
- An Intelligent Sensor Network and its Applications (Ministry of Economic Affairs)  
Date of the award: June 2005 (3 years)  
Amount of the award: NT\$69,000,000 (with C.T. King et al.)
- StarFish – An Ultralow power DSP (Ministry of Economic Affairs)  
Date of the award: June 2005 (3 years)  
Amount of the award: NT\$55,000,000 (with Y.L. Lin et al.)
- Taiwan UniGrid – A University Grid In Taiwan (NCHC)  
Date of the award: January 2005 (2years)  
Amount of the award: NT\$4,040,000
- A General Purpose Sensor Platform Design (NSC)  
Date of the award: August 2004 (3years)  
Amount of the award: NT\$4,821,100
- Overlay Network Technology and Applications (NSC)  
Date of the award: April 2004 (4 years)  
Amount of the award: NT\$27,042,400 (with C.T. King et al.)
- A Data Grid System for Data Streaming Applications Based on Microsoft Windows (Microsoft)  
Date of the award: January 2004

Amount of the award: NT\$1,800,000

- HPC Technology and Applications Based on Microsoft Windows (Microsoft)

Date of the award: January 2003

Amount of the award: NT\$2,400,000

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#### Awards

- 2017 IEEE SC2 best paper award. Paper title "Application-Aware Traffic Redirection: A Mobile Edge Computing Implementation Toward Future 5G Networks"
- 2017 IEEE ICASI best paper award. Paper title "File Placement Mechanisms for Improving Write Throughputs of Cloud Storage Services Based on Ceph and HDFS"
- 2016 IEEE SC2 best poster award. Poster title "Byzantine Fault Tolerant Optimization in Federated Cloud Computing"
- 2016 ACM VEE best paper award. Paper title "Building A KVM-based Hypervisor for A Heterogeneous System Architecture Compliant System"
- 2015 China Thousand Talents Plan awardee (innovative long-term)
- 2014 NTHU Distinguished Industry-Academy Cooperation Award for excellent contribution to the Big Data
- 2011 ACM/IEEE Supercomputing conference (SC'14) Student Cluster Competition Highest LINKPACK Award
- 2014 NCHC Student Cluster Competition Champion
- 2013 NCHC Student Cluster Competition Champion
- 2012 NTHU Distinguished Industry-Academy Cooperation Award for excellent contribution to the Cloud Computing
- 2012 NCHC Student Cluster Competition Champion
- 2011 ICPADS best paper award. Paper title "PQEMU: A Parallel System Emulator Based on QEMU"
- 2011 ACM/IEEE Supercomputing conference (SC'11) Student Cluster Competition overall winner
- 2011 NCHC Student Cluster Competition Champion
- 2010 ACM/IEEE Supercomputing Conference (SC'10) Student Cluster Competition overall winner
- 2010 Embedded System – Hardware/Software Co-Design Contest Champion, Ministry of Education of ROC

- 2008 Chung-Shang Institute of Science and Technology Distinguished Academy Cooperation Award for excellent contribution to the High Level Architecture System Design
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#### Journal Editorship

- Associate Editor, ACM Computing Surveys, Since 2014
  - Associate Editor, International Journal of Big Data Intelligence (IJBDI), 2013-2015
  - Associate Editor, Journal of Chinese Institute of Engineers (JCIE), 2012-2013
  - Editor, International Journal of Grid and High Performance Computing (IJGHPC), Since 2009
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#### Patents

- Ying-Ti Liao, Jiazheng Zhou, and **Yeh-Ching Chung**, “Synchronization System for Transforming Database and Method Thereof,” US Patent, Accepted, July 2017.
  - Hung-Chang Hsiao, Chi-Tsun Liao, Chia-Ping Tsai, and **Yeh-Ching Chung**, “System and method for recovering system state consistency to any point-in-time in distributed database,” No. US9372725B2, USA, June 21, 2016.
  - Ying-Ti Liao, Jiazheng Zhou, and **Yeh-Ching Chung**, “資料庫轉換的同步系統及其方法,” No. I539309, Taiwan, June 21, 2016.
  - **Yeh-Ching Chung** and Jiun-Hung Ding, “多核心處理器系統及其排程方法,” No. I503742, Taiwan, October 11, 2015.
  - Wei-Chih Sun and **Yeh-Ching Chung**, “執行應用於安卓系統之應用程式之雲端管理系統及其方法,” No. I49918, Taiwan, September 9, 2015.
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#### Book Chapters

1. Kuo-Chan Huang, Po-Chi Shih, and **Yeh-Ching Chung**, “Effective Resource Allocation and Job Scheduling Mechanisms for Load Sharing in a Computational Grid”, *Handbook of Research on Grid Technologies and Utility Computing: Concepts for Managing Large-Scale Applications*, Edited by Emmanuel Udoh and Frank Zhigang Wang, pp. 31-40, Information Science Publishing, May 31, 2009, (ISBN: 978-1605661841).
2. Kuo-Chan Huang, Po-Chi Shih, and **Yeh-Ching Chung**, "QoS-based Job Scheduling and Resource Management Strategies for Grid Computing," *Quantitative Quality of Service for Grid Computing: Applications for Heterogeneity, Large-Scale Distribution, and*

*Dynamic Environments*, Edited by Lizhe Wang, Jinjun Chen, and Wei Jie, pp. 110-127, Information Science Publishing, May 5, 2009 (ISBN: 978-1605663708).

3. William C. Chu, Chih-Hong Chang, Chih-Wei Lu, H. Yang, H.C. Jiau, **Yeh-Ching Chung**, and B. Qiao, "Enhancing Software Maintainability by Unifying and Integrating Standards," *Advances in Software Maintenance Management: Technologies and Solutions*, pp. 114-150, Idea Group Publishing, 2002.
  4. Chih-Wei Lu, William C. Chu, Chih-Hong Chang, **Yeh-Ching Chung**, X. Liu, and H. Yang, "Reverse Engineering," *Handbook of Software Engineering and Knowledge Engineering*, Vol. 2, pp. 447-466, 2002.
  5. William C. Chu, Chih-Wei Lu, Chih-Hong Chang, and **Yeh-Ching Chung**, "Pattern-Based Software Reengineering," *Handbook of Software Engineering and Knowledge Engineering*, Vol. 1, pp.767-786, 2001.
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- J1. Rui Zhang, Wenguang Chen, Tse-Chuan Hsu, Hongji Yang, and **Yeh-Ching Chung**, "ANG – A Combination of Apriori and Graph Computing Techniques for Frequent Itemsets Mining," To appear in *The Journal of Supercomputing*. (SCI, EI)
- J2. Moïse W. Convolbo, Jerry Chou, Ching-Hsien Hsu, and **Yeh-Ching Chung**, "GEODIS: Towards the Optimization of Data Locality-Aware Job Scheduling in Geo-Distributed Data Centers," *Journal of Computing*, Vol. 100, No.1, January 2018, pp. 21-46. (SCI, EI)
- J3. Fang-Ping and **Yeh-Ching Chung**, "Multi-layer Ontology Based Information Fusion for Situation Awareness," *The International Journal of Artificial Intelligence, Neural Networks, and Complex Problem-Solving Technologies* (Applied Intelligence), Vol. 46, 2017, pp. 285-307. (SCI, EI)
- J4. Ying-Ti Liao, Jiazheng Zhou, Chia-Hung Lu, Shih-Chang Chen, Ching-Hsien Hsu, Wenguang Chen, Fong Jiang, and **Yeh-Ching Chung**, "Data Adapter for Uniform Access and Transformation in NoSQL Systems," *Future Generation Computer Systems*, Vol. 65, December 2016, pp. 111-121. (SCI, EI)
- J5. Fang-Ping Pai, I-Ching Hsu, and **Yeh-Ching Chung**, "Semantic Web Technology for Agent Interoperability: A Proposed Infrastructure," *The International Journal of Artificial Intelligence, Neural Networks, and Complex Problem-Solving Technologies* (Applied Intelligence), Vol. 44, No. 1, January 2016, pp. 1-16. (SCI, EI)
- J6. Che-Lun Hung, Yu-Shiang Lin, Chun-Yuan Lin, **Yeh-Ching Chung**, and Yi-Fang Chung, "CUDA ClustalW: An Efficient Parallel Algorithm for Progressive Multiple Sequence Alignment on Multi-GPUs," *Computational Biology and Chemistry*, Vol. 58, October 2015, pp. 62-68. (SCI, EI)
- J7. Yu-Shiang Lin, Chun-Yuan Lin, Che-Lun Hung, **Yeh-Ching Chung**, and Kual-Zheng Lee, "GPU-UPGMA: High-Performance Computing for UPGMA Algorithm Based on Graphics Processing Units," *Concurrency and Computation: Practice and Experience*, Vol. 27, No. 13, September 2015, pp. 3403-3414. (SCI, EI)
- J8. Ching-Hsien Hsu, Kenn Slagter, and **Yeh-Ching Chung**, "Locality and Loading Aware Virtual Machine Mapping Techniques for Optimizing Communications in MapReduce Applications," *Future Generation Computer Systems*, Vol. 53, June 2015, pp. 43-54. (SCI, EI)

- J9. Kenn Slagter, Ching-Hsien Hsu, and **Yeh-Ching Chung**, "An Adaptive Sampling Mechanism for Partitioning in MapReduce," *International Journal of Parallel Programming*, Vol. 43, No. 3, June, 2015, pp. 489-507. (SCI, EI)
- J10. Ssu-Hsuan Lu, Kuan-Chou Lai, Kuan-Ching Li, and **Yeh-Ching Chung**, "A Scalable P2P Overlay Based on Arrangement Graph with Minimized Overhead," *Peer-to-Peer Networking and Applications*, Vol. 7, No. 4, December 2014, pp. 497-510. (SCI, EI)
- J11. Wu-Chun Chung, Hung-Pin Lin, Shih-Chang Chen, Mon-Fong Jang, and **Yeh-Ching Chung**, "JackHare: A Framework for SQL to NoSQL Translation Using MapReduce," *Automated Software Engineering*, Vol. 21, No. 4, December 2014, pp. 489-508. (SCI, EI)
- J12. Ching-Jung Hsu, Wu-Chun Chung, Kuan-Chou Lai, Kuan-Ching Li, and **Yeh-Ching Chung**, "On Maintenance of Cooperative Overlays in Multi-Overlay Networks," *IET Communications*, Vol. 8, No. 15, October 2014, pp. 2676-2683. (SCI, EI)
- J13. Shih-Hsiang Lo, Che-Rung Lee, Quey-Liang Kao, I-Hsin Chung, and **Yeh-Ching Chung**, "Improving GPU Memory Performance with Artificial Barrier Synchronization," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 25, No. 9, September 2014, pp. 2342-2352. (SCI, EI)
- J14. Kenn Slagter, Ching-Hsien Hsu, and **Yeh-Ching Chung**, "SmartJoin: A Network-Aware Multiway Join for MapReduce," *Cluster Computing*, Vol. 17, No. 3, September 2014, pp. 629-641. (SCI, EI)
- J15. Xuan-Yi Lin and **Yeh-Ching Chung**, "Master-Worker Model for MapReduce Paradigm on the TILE64 Many-Core Platform," *Future Generation Computer Systems*, Vol. 36, July 2014, pp. 19-30. (SCI, EI)
- J16. Jiun-Hung Ding, Roger Chien, Shih-Hao Hung, Yi-Lan Lin, Che-Yang Kuo, Ching-Hsien Hsu, and **Yeh-Ching Chung**, "A Framework of Cloud-based Virtual Phones for Secure Intelligent Information Management," *International Journal of Information Management.*, Vol. 34, June 2014, pp. 329-335. (SCI, EI)
- J17. Ssu-Hsuan Lu, Kuan-Chou Lai, Kuan-Ching Li, and **Yeh-Ching Chung**, "Effectiveness of a Replica Mechanism to Improve Availability with Arrangement Graph-Based Overlay," *Journal of Network and Computer Applications*, Vol. 41, May 2014, pp. 441-450. (SCI, EI)
- J18. Jiun-Hung Ding, Ya-Ting Chang, Zhoudong Kuo, Kuan-Ching Li, and **Yeh-Ching Chung**, "An Efficient and Comprehensive Scheduler on Asymmetric Multicore Architecture Systems," *The Journal of System Architecture*, Vol. 60, No. 3, March 2014, pp. 305-314. (SCI, EI)
- J19. Ding-Yong Hong, Jan-Jan Wu, Pen-Chung Yew, Wei-Chung Hsu, Chun-Chen Hsu, Pangfeng Liu, Chien-Min Wang, and **Yeh-Ching Chung**, "Efficient and Retargetable Dynamic Binary Translation on Multicores," *IEEE Transactions on Parallel and Distributed Systems*, Vol. 25, No. 3, March 2014, pp. 622-632. (SCI, EI)
- J20. Ching-Hsien Hsu, Kenn Slagter, Shih-Chang Chen, **Yeh-Ching Chung**, "Optimizing Energy Consumption with Task Consolidation in Clouds," *Information Sciences*, Vol. 258, February 2014, pp. 452-462. (SCI, EI)
- J21. Po-Chi Shih, Kuo-Chan Huang, Che-Rung Lee, I-Hsin Chung, and **Yeh-Ching Chung**, "TLA: Temporal Look-Ahead Processor Allocation Method for Heterogeneous Multi-Cluster Systems," *Journal of Parallel and Distributed Computing*, Vol. 73, No. 12, December 2013, pp. 1661-1672. (SCI, EI)



- J22. Kenn Slagter, Ching-Hsien Hsu, and **Yeh-Ching Chung**, Daqiang Zhang, "An Improved Partitioning Mechanism for Optimizing Massive Data Analysis Using MapReduce," *The Journal of Supercomputing*, Vol. 66, No. 1, October 2013, pp. 539-555. (SCI, EI)
- J23. Wu-Chung Chung, Kuan-Chou Lai, Kuan-Ching Li, and **Yeh-Ching Chung**, "Direction-Aware Resource Discovery in Large-Scale Distributed Computing Environments," *The Journal of Supercomputing*, Vol. 66, No. 1, October 2013, pp. 229-248. (SCI, EI)
- J24. Yu-Wei Chan, Feng-Tsun Chien, Ronald Y. Chang, Min-Kuan Chang, **Yeh-Ching Chung**, "Spectrum Sharing in Multi-Channel Cooperative Cognitive Radio Networks: A Coalitional Game Approach," *ACM/Springer Wireless Networks*, Vol. 19, No. 7, October 2013, pp. 1553-1562. (SCI, EI)
- J25. Xuan-Yi Lin, Kuan-Chou Lai, Kuan-Ching Li, and **Yeh-Ching Chung**, "Efficient Programming Paradigm for Video Streaming Processing on TILE64 Platform," *The Journal of Supercomputing*, Vol. 65, No. 2, August 2013, pp. 823-847. (SCI, EI)
- J26. Shih-Hsiang Lo, Che-Rung Lee, I-Hsin Chung, and **Yeh-Ching Chung**, "Optimizing Pairwise Box Intersection Checking on GPUs for Large-Scale Simulations," *ACM Transactions on Modeling and Computer Simulation*, Vol. 23, No. 3, Article 19, July 2013. (SCI, EI)
- J27. Wu-Chun Chung, Yi-Hsiang Lin, Kuan-Chou Lai, Kuan-Ching Li, and **Yeh-Ching Chung**, "SARIDS: A Self-Adaptive Resource Index and Discovery System," *International Journal of Ad Hoc and Ubiquitous Computing*, Vol. 10, No. 2, July 2012, pp. 74-83(10). (SCI, EI)
- J28. Po-Chi Shih, Kuo-Chan Huang, and **Yeh-Ching Chung**, "Improving Processor Allocation in Heterogeneous Computing Grid through Considering Both Speed Heterogeneity and Resource Fragmentation," *The Journal of Supercomputing*, Vol. 60, No. 3, May 2012, pp. 311-337. (SCI, EI)
- J29. Jiazheng Zhou, Shen-En Liu, and **Yeh-Ching Chung**, "A Hardware Supported Multicast Scheme Based on XY Routing for 2-D Mesh InfiniBand Networks," *The Journal of Supercomputing*, Vol. 59, No. 2, February 2012, pp. 901-919. (SCI, EI)
- J30. Jiazheng Zhou and **Yeh-Ching Chung**, "Tree-Turn Routing: An Efficient Deadlock-Free Routing Algorithm for Irregular Networks," *The Journal of Supercomputing*, Vol. 59, No. 2, February 2012, pp. 882-900. (SCI, EI)
- J31. Wei-Chung Shia, Tien-Hsiung Ku, Yu-Ming Tsao, Chien-Hsun Hsia, Yung-Ming Chang, Ching-Hui Huang, **Yeh-Ching Chung**, Shih-Lan Hsu, Kae-Woei Liang, and Fang-Rong Hsu, "Genetic Copy Number Variants in Myocardial Infarction Patients with Hyperlipidemia," *BMC Genomics*, Vol. 12 (Suppl 3):S23, November 2011. (SCI, MEDLINE)
- J32. I-Hsin Chung, Che-rung Lee, Jiazheng Zhou, and **Yeh-Ching Chung**, "Hierarchical Mapping for HPC Applications," *Parallel Processing Letter*, Vol. 21, No. 3, 2011, pp. 279-299. (SCI, EI)
- J33. Chin-Jung Hsu, Wu-Chun Chung, Kuan-Chou Lai, Kuan-Ching Li, and **Yeh-Ching Chung**, "Cooperative Failure Detection in Multi-Overlay Environments," *Journal of Internet Technology*, Vol. 12, No. 2, March 2011, pp. 259-267. (SCI, EI)
- J34. Che-Lun Hung, Chihan Lee, Chun-Yuan Lin, Chih-Hung Chang, Yeh-Ching Chung, and Chuan Yi Tang, "Feature Amplified Voting Algorithm for Functional Analysis of

- Protein Superfamily," *BMC Genomics*, Vol. 11 (Suppl 3):S14, December 2010. (SCI, MEDLINE)
- J35. Wu-Chun Chung, Chin-Jung Hsu, Yi-Shiang Lin, Kuan-Chou Lai, and **Yeh-Ching Chung**, "G2G: A Meta-Grid Framework for the Convergence of P2P and Grids," *International Journal of Grid and High Performance Computing*, Vol. 2, No. 3, July-September 2010, pp. 1-16.
- J36. Yu-Wei Chan, Tsung-Hsuan Ho, and **Yeh-Ching Chung**, "Malugo: A Peer-to-Peer Storage System," *International Journal of Ad Hoc and Ubiquitous Computing*, Vol. 5, No. 4, April 2010, pp. 209-218. (SCI, EI)
- J37. Yu-Wei Chan, Chih-Han Lai, and **Yeh-Ching Chung**, "A Construction of Peer-to-Peer Streaming System Based on Flexible Locality-Aware Overlay Networks," *International Journal of Pervasive Computing and Communications*, Vol. 6, No. 1, January-March 2010, pp. 104-124.
- J38. Chun-Hsien Wu and **Yeh-Ching Chung**, "A Polygon Model for Wireless Sensor Network Deployment with Directional Sensing Areas," *Sensors*, Vol. 9, No. 12, December 2009, pp. 9998-10022. (SCI, EI, NSC 98-2218-E-007-005, MOEA 96-EC-17-A-04-S1-044)
- J39. Kuo-Chan Huang, Po-Chi Shih, and **Yeh-Ching Chung**, "Adaptive Processor Allocation for Moldable Jobs in Computational Grid," *International Journal of Grid and High Performance Computing*, Vol. 1, No. 1, January-March 2009, pp. 10-21.
- J40. Chun-Hsien Wu, Kuo-Chuan Lee, and **Yeh-Ching Chung**, "A Delaunay Triangulation Based Method for Wireless Sensor Network Deployment," *Computer Communications*, Vol. 30, No. 15, October, 2007, pp. 2744-2752. (SCI, EI, NSC94-2213-E-007-037, MOEA 94-EC-17-A-04-S1-044)
- J41. Chun-Yuan Lin and **Yeh-Ching Chung**, "Data Distribution Schemes of Sparse Arrays on Distributed Memory Multicomputers," *The Journal of Supercomputing*, Vol. 41, No. 1, July 2007, pp. 63-87. (SCI, EI, NSC90-2213-E-035-019)
- J42. Jiazheng Zhou, Xuan-Yi Lin, and **Yeh-Ching Chung**, "Hardware Supported Multicast for Fat-Tree-Based InfiniBand Networks," *The Journal of Supercomputing*, Vol. 40, No. 3, June 2007, pp. 333-352. (SCI, EI, NSC93-2213-E-007-100)
- J43. Chin-Feng Lin, **Yeh-Ching Chung**, and Don-Lin Yang, "TRLE - An Efficient Data Compression Scheme for Image Composition of Volume Rendering on Distributed Memory Multicomputers," *The Journal of Supercomputing*, Vol. 39, No.3, March 2007, pp. 321-345. (SCI, EI)
- J44. Jenshiuh Liu, Zhi-Jian Lee, and **Yeh-Ching Chung**, "Dynamic Probabilistic Packet Marking for Efficient IP Traceback," *Computer Networks*, Vol. 51, March 2007, pp. 866-882. (SCI, EI)
- J45. Chun-Yuan Lin and **Yeh-Ching Chung**, "Efficient Data Distribution Schemes for Multi-Dimensional Sparse Arrays," *Journal of Information Science and Engineering*, Vol. 23, No. 1, January 2007, pp. 315-327. (SCI, EI, NSC91-2213-E-007-104)
- J46. Chi-Sheng Shih, Shiao-Li Tsao, **Yeh-Ching Chung**, and Shyh-In Hwang, "Toward HW/SW Integration: a Networked Embedded System Course in Taiwan," *ACM SIGBED Review*, Vol. 4, No. 1, January 2007, pp. 36-54.
- J47. Tai-Yi Huang, Kuang-Li Huang, and **Yeh-Ching Chung**, "Performance Analysis of Hard-Real\_time Embedded Software," *International Journal on Embedded Systems*, Vol. 2, No. 3/4, 2006, pp. 209-221.

- J48. Min-Hsuan Fan Chua-Huang Huang, **Yeh-Ching Chung**, Jen-Shiuh Liu, and Jei-Zhii Lee, "A Programming Methodology for Designing Block Recursive Algorithms", *Journal of Information Science and Engineering*, Vol. 22, No. 1, January 2006, pp. 95-121. (SCI, EI)
- J49. Chun-Yuan Lin, **Yeh-Ching Chung**, and Jen-Shiuh Liu, "Efficient Data Distribution Schemes for *EKMR*-based Sparse Arrays on Distributed Memory Multicomputers," *The Journal of Supercomputing*, Vol. 34, No. 3, December 2005, pp. 291-313. (SCI, EI, NSC91-2213-E-007-104)
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## Ph.D. Students Supervised

- Ching-Hsien Hsu, January 1999  
Dissertation Title – Efficient Methods for Run-Time Array Redistribution
- Ching-Jung Liao, June 1999  
Dissertation Title – Efficient Partitioning and Load Balancing Methods for Finite Element Graphs on Distributed Memory Multicomputers
- Chun-Yuan Lin, June 2003  
Dissertation Title – Efficient Data Parallel Program Design for Multi-Dimensional Array Operations Based on the Extended Karnaugh Map Representation Scheme
- Chin-Feng Lin, January 2004  
Dissertation Title – Efficient Parallel Volume Rendering Methods on Distributed Memory Multicomputers
- Shih-Kuan Liao, June 2004  
Dissertation Title – Time Varying Volume Data Rendering
- Che-Lun Hung, March 2010  
Dissertation Title – Efficient Algorithms for Triple-wise Alignment and its Applications
- Chun-Hsien Wu, June 2010  
Dissertation Title – Deployment Strategies for Wireless Sensor Networks
- Jia-Zheng Zhou, March 2011  
Dissertation Title – Routing in Interconnection Networks and Its Applications
- Po-Chi Shih, July 2012  
Dissertation Title – Improving Parallel Job Scheduling Performance in Multi-Cluster through Look-Ahead Processor Allocation
- Shih-Hsiang Lo, March 2013  
Dissertation Title – Optimization Techniques for Reducing Data Communication Costs on GPU Systems
- Wu-Chun Chung, April 2013  
Dissertation Title – Decentralized Management of Resource Information and Discovery in Large-Scale Distributed Computing
- Ding-Yong Hong, April 2013  
Dissertation Title – Efficient and Retargetable Dynamic Binary Translation
- Xuan-Yi Lin, June 2013  
Dissertation Title – Master-Worker Paradigm on TILE64 Many-Core Platform
- Yu-Wei Chan, June 2013  
Dissertation Title – Resource Sharing Strategies for Wide-Area Fusing Locality-Aware and Game Theoretic Approaches
- Kenn Slagter, November 2013  
Dissertation Title – Load Balancing and Data Placement in MapReduce
- Ssu-Hsuan Lu, January 2014  
Dissertation Title – A Self-Scaling Overlay Network Based on Arrangement Graph
- Fang-Ping Bai, July 2016  
Dissertation Title – An Ontology-Driven Multi-Agent Information Fusion Framework to Enhance Situation Awareness

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Dissertation Title – Scheduling Techniques on Cloud Resources under Cost and Performance Requirements
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#### Master Students Supervised

- Yaa-Jyun Yeh, June 1994  
Thesis Title – Parallel Dynamic Load Balancing Algorithms for Solution-Adaptive Finite Element Graphs on Distributed Memory Multiprocessors
- Wu-Hsun Ho, June 1995  
Thesis Title – PPT: A Parallel Programming Tool for Distributed Memory Multiprocessors
- Shih-Jey Chen, June 1996  
Thesis Title – HCL: An Implementation of Message Passing Interface on Workstation Clusters
- Sheng-Wen Bai, June 1998  
Thesis Title – A Generalized Basic-Cycle Calculation Technique for Efficient Array Redistribution
- Jen-Chih Yu, June 1999  
Thesis Title – Efficient Compositing Methods for the Sort-Last-Sparse Parallel Volume Rendering System on Distributed Memory Multicomputers
- Chih-Chang Chen, June 1999  
Thesis Title – A Dynamic Diffusion Optimization Method for Irregular Finite Element Graph Partitioning
- Chao-Jen Lee, June 2000  
Thesis Title – A Web-Based Parallel PDE Solver Generation System for Distributed Memory Computing Environments
- Chun-Yuan Lin, June 2000  
Thesis Title – Efficient Algorithms for Multi-Dimensional Matrix Operations
- Ching-Ting Pan, June 2001  
Thesis Title – An Efficient Hash Based Method for Discovering the Maximal Frequent Set
- Su-Ming Yang, June 2001  
Thesis Title – The Design and Implementation of an IAM2000s C Compiler
- Wu-Hong Chen, June 2001  
Thesis Title – A Real-Time Flight Control Embedded System Based on mC/OS-II Kernel
- Ching-Jung Long, January 2002  
Thesis Title – Efficient Load Balancing Methods for Cellular Mobile Networks
- Chun-Hsing Chang, June 2002  
Thesis Title – A Configurable Hard Real-Time Operating System Based on uC/OS-II Kernel for Flight Controls
- Yuan-Chang Tsai, June 2002  
Thesis Title – An Integrated Design for Automatic System Development Tool Kits

## Generation

- Chun-Hsien Wu, June 2002  
Thesis Title – A Service Composition Framework for Service Discovery/Delivery Based on SLP
- Kuen-Lin Cheng, June 2002  
Thesis Title – The Integration of GPS and GIS on PDAs
- Jen-Shen Lin, June 2002  
Thesis Title – Image Compression by Adjacent Decomposed Bit-Plane Substitution
- Xuan-Yi Lin, June 2003  
Thesis Title – An Efficient Communication Scheme for Fat-Tree Topology on InfiniBand Networks
- Yao-Ming Sun, July 2004  
Thesis Title – An Efficient Deadlock-Free Tree-Based Routing Algorithm for Irregular Wormhole-Routed Networks Based on the Turn Model
- Jia-Zheng Zhou, July 2004  
Thesis Title – Multicast in Fat-Tree-Based InfiniBand Networks
- Chang-Yi Lin, July 2004  
Thesis Title – An Adaptive Migratory Home Protocol for Software Distributed Shared Memory Systems
- Yun-Chan Lee, July 2005  
Thesis Title – A Hybrid Wavelet-Based Video Codec with Low Computational Complexity, Memory Efficiency, and Scalability
- Ssu-Chun Tseng, July 2005  
Thesis Title – A Scalable and Robust Scheme Based on the Multiple Description Coding for Low Bit-Rate Speech Coders
- Tse-Ming Kao, July 2005  
Thesis Title – A Multithreaded DSM System with Thread Migration for Memory Locality over InfiniBand
- Kuo-Chuan Lee, July 2005  
Thesis Title – A Delaunay Triangulation Based Method for Wireless Sensor Network Deployment
- Hsien-Ting Kuo, July 2005  
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- Shen-En Liu, July 2005  
Thesis Title – Hardware Supported Multicast in Tow-Dimensional Mesh InfiniBand Networks
- Wei-Ching Kao, September 2005  
Thesis Title – An embedded Print Server
- Yang-Ping Cheng, September 2005  
Thesis Title – A Performance-Efficient Task Duplication- Based Scheduling Algorithm for Heterogeneous Computing

- Tse-Yu Hsu, June 2006  
Thesis Title – A Register Allocation Algorithm for Shared and Clustered Hybrid Register File Organization
- Meng-Ru Lin, June 2006  
Thesis Title – CFR: A Peer-to-Peer Collaborative File Repository System
- Ching-Wen Yu, June 2006  
Thesis Title – SPE: A Programming Environment for Wireless Sensor Networks
- Yi-Kai Pong, June 2006  
Thesis Title – Applying Curve Fitting Techniques to Construct the Synopsis of Data Streams
- Jiun-Hung Ding, June 2006  
Thesis Title – SEMU: A Framework of Simulation Environment for Wireless Sensor Networks
- Shih-Hsiang Lo, June 2006  
Thesis Title – Cooperative Localization with Pre-Knowledge using Bayesian Network for Wireless Sensor Networks
- Wen-Li Tang, June 2006  
Thesis Title – A Fast, Flexible, and Precise Simulation Framework for Starfish DSP Architecture
- Chih-Han Lai, June 2007  
Thesis Title – A Construction of Peer-to-Peer Streaming System Based on Flexible Locality-Aware Overlay Networks
- Tun-Yi Chang, June 2007  
Thesis Title – Taking Advantage of Multi-Core Architecture in Disk Array
- Yu-Chen Wu, July 2007  
Thesis Title – Dynamic Helper Threaded Prefetching on the Multi-Core Software RAID
- Chin-Wei Tang, July 2007  
Thesis Title – A System-Level Simulation Framework for Performance Evaluation of Hardware-Based Network Intrusion Detection Systems
- Meng-Hsuan Cheng, July 2007  
Thesis Title – A VLIW-Based Post Compilation Framework for Multimedia Embedded DSPs with Hardware Specific Optimizations
- Wei-Lun Tsai, July 2007  
Thesis Title – A Tag-Based Overlay Network for Defending Against DDoS Attack
- Yan-Zu Wu, July 2007  
Thesis Title – A Extended Shared and Clustered Register Files Organization – Wired SCRF Architecture
- Chung Han Lin, July 2007  
Thesis Title – M-Ring: A Distributed, Self-Organize, Load Balancing Communication Method on Super Peer Network
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Thesis Title – A Pipeline and Macroblock-Level Parallelism Architecture Design for H.264/AVC Baseline Decoder
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Thesis Title – Reduce Leakage Power of JPEG Image on Asymmetric SRAM

- Chung-Hsuan Ho, July 2008  
Thesis Title – Malugo: A Peer-to-Peer Storage System
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Thesis Title – Minimize the Distance of Failure Location for Automatic Debugging Technique with Improved State-Coverage mechanism
- Chih-Chen Chen, July 2008  
Thesis Title – Using parity cache to reduce overhead of small write requests under Linux software RAID-5 system
- Hao Yuan, July 2008  
Thesis Title – Profile Based Trace Selection of Code Layout Optimizations in Open64 Compiler
- Cheng-Tin Tsai, July 2008  
Thesis Title – A Parallel Algorithm of H.264/AVC Encoder on Multi-Core Systems
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Thesis Title – An Adaptive Method for Distributed Data Management in High Level Architecture
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Thesis Title – Helper Threaded Shadow Paging on Multi-Core Virtualization Processors
- Chin-Jung Hsu, June 2009  
Thesis Title – Cooperative Maintenance in Multi-Overlay Environments
- Yi-Hsiang Lin, June 2009  
Thesis Title – SARIDS : A Self-Adaptive Resource Index and Discovery System
- Ze-Chuan Yeh, June 2009  
Thesis Title – A Power-Efficient and High-Throughput Deblocking Filter Hardware Architecture for H.264/AVC
- Chia-Dar Tsai, July 2009  
Thesis Title – A Low-Power Hardware Design for H.264/AVC Baseline Decoder
- Chih-Yin Wu, July 2009  
Thesis Title – Dryad: An Ahead of Time Compiler Optimization Framework for Android
- Min-Chuan Hung, July 2009  
Thesis Title – A Time/Space Balanced Flash Translation Layer for Embedded Systems
- Shuo-Hung Chen, July 2010  
Thesis Title – HW/SW Co-Design of High-Performance Multi-Core Vector Graphics System
- Wei-Chao Chang, July 2010  
Thesis Title – A Locality-based Multicast Scheme on Structured Peer-to-peer Overlay for High Level Architecture
- Chia-Hong Chien, September 2010  
Thesis Title – A Separate Code Cache Model for a Parallel Multi-Core System Emulator Based on QEMU
- Hsiang-Wei Sung, September 2010

- Thesis Title – Processor virtualization and optimization for KVM-ARM
- Fan-Lei Liao, July 2011
  - Thesis Title – Memory Virtualization Design for KVM-ARM
- Tai-Wen Lung, July 2011
  - Thesis Title – Data Locality Optimizations for Multi-Level Caches in Java Multi-Core Compiler
- Chih-Sheng Wang, July 2011
  - Thesis Title – An Ahead-of-Time compilation and optimization framework based on LLVM for Google Android
- Moise Convolbo, July 2011
  - Thesis Title – Rsvg: Display Big Size Vector Map on Mobile Device
- Ya-Ting Chang, May 2012
  - Thesis Title – NUMA-Aware Scheduler for Asymmetric Multicore Processors
- Guillermo A. Perez, May 2012
  - Thesis Title – A Hybrid Just-In-Time Compiler for Android
- Ming-Hsuan Lee, June 2012
  - Thesis Title – The Scheduling and Timer Interrupt Mechanism for PQEMU
- Chao-Chu Wang, June 2012
  - Thesis Title – Implementation of x86 Atomic Instruction Emulation in PQEMU
- Jia-Wang Chung, June 2012
  - Thesis Title – Interrupt Controller Design Based on PQEMU
- Chang-Jung Lin, June 2012
  - Thesis Title – I/O Performance Optimization and Analysis for ARMvisor Using Virtio and Irqchip
- Yu-Ying Chen, June 2012
  - Thesis Title – Improve 3D Performance of Qemu-Spice
- Shih-Wei Li, June 2012
  - Thesis Title – Memory Virtualization for ARMvisor
- Hung-Ping Lin, June 2012
  - Thesis Title – Structured Data Processing on MapReduce in NoSQL Database
- Yi-Man Ma, July 2012
  - Thesis Title – InfiniBand Virtualization for Kernel-based Virtual Machine
- Zhoudong Guo, June 2013
  - Thesis Title – HSA Emulator Design Based on QEMU
- Sheriffo Ceesay, June 2013
  - Thesis Title – Moving Towards Pure ANSI SQL in NoSQL
- Chih-Hao Chang, July 2013
  - Thesis Title – Memory Virtualization on ARM Architecture with Virtualization Hardware Extension
- Chung-Min Kao, July 2013
  - Thesis Title – The LLVM Based GPU Compiler in Heterogeneous System Architecture Emulator: HTranslator
- Ping-Hao Chang, July 2013
  - Thesis Title – CPU Virtualization with ARM Virtualization Extension on ARMvsior
- Shu-Ming Chang, July 2014
  - Thesis Title – Adaptive Fusion SQL Engine on Hadoop Framework
- Ying-Ti Liao, July 2014
  - Thesis Title – Data Adapter for Querying and Transformation Between SQL and

## NoSQL Databases

- Su-Shien Ho, July 2014  
Thesis Title – Distributed Metaserver Mechanism and Recovery Mechanism Support in Quanteast File System
- Yi-chen Yang, July 2014  
Thesis Title – CSCJ: Star Join Processing on HBase Using Hadoop MapReduce
- Intan Maghfirah, July 2014  
Thesis Title – Constraints Preserving in Schema Transformation to Enhance Database Migration from MySQL to HBase
- Ngo-Thi Nha, July 2014  
Thesis Title – MTSW: Multi-Tenant Web-based Management System on SSDB and HDFS
- Kuo-Min Lin, July 2014  
Thesis Title – A Compilation Framework for HSA
- Bai-Cheng Jeng, July 2014  
Thesis Title – HSAemu Framework
- Che-Yang Kuo, July 2015  
Thesis Title – Implementation of Image Feature Supports in HSAemu Framework
- Jui Hsiao, July 2015  
Thesis Title – An OpenCL 2.0 Compilation Framework for HSA
- Fei Peng, July 2015  
Thesis Title – OpenCL 2.0 Enabled HSA Hardware Emulation
- Yen-Yu Lin, July 2015  
Thesis Title – Container-Based Automated Workflow System Supporting On-Demand Service Provision
- Hsing-Chang Chou, July 2015  
Thesis Title – Container-Based Scale-Out Architecture for Cloud Storage Service
- Wei-Chih Sun, July 2015  
Thesis Title – An OpenCL 2.0 Runtime Based on HSA Runtime
- Lyu-Wei Wang, July 2015  
Thesis Title – BiFennel: Fast Graph Partitioning Algorithm for Big Data
- Chih-Hsien Chen, July 2015  
Thesis Title – SQL/PCM Design and Implement on NoSQL Database
- Yi-Lan Lin, July 2015  
Thesis Title – Community-Based M2M Framework Using Smart/HetNet GW
- Chun-Feng Wu, June 2016  
Thesis Title – A Hybrid Mechanism to Improve Write Scenarios for Cloud Storage Services
- Mu-Han Huang, June 2016  
Thesis Title – Application-Aware Resource Provisioning for On-Demand Container-Based Cloud Radio Access Network
- Chia-Hung Lu, June 2016  
Thesis Title – Log-Based Synchronization Mechanism Between RDBMS and NoSQL Databases
- Luis Herrera, June 2016  
Thesis Title – A KVM-Based GPGPU Virtualization Technique for Windows
- Hao-Che Hsu, June 2016  
Thesis Title – An HSA Emulation Platform with SVM and Multiple Computing

- Devices Support
- Beibei Li, June 2016  
Thesis Title – Container-Based Workflow System for Production Server Deployment
  - Shih-Chun Huang, July 2017  
Thesis Title – Application-Aware Offloading Mechanism for Mobile Edge Computing
  - Yu-Chin Luo, July 2017  
Thesis Title – Improve Resource Utilization of Cloud Radio Access Network Using Containerization and Functional Split Techniques
  - Bing-Liang Chen, July 2017  
Thesis Title – Dynamic Module Deployment Mechanism and Placement Optimization on M2M Platform
  - Hung-Ying Tai, July 2017  
Thesis Title – Crystal: An Extensible Framework for Profiling and Optimizing Large-Scale System Software
  - Meng-Hsun Yang, July 2017  
Thesis Title – Code Layout Optimization Applying Community Detection Algorithm
  - Jian-Lin Chen, July 2017  
Thesis Title – Function Reordering Optimization Based on Weighted Call Graph for Large-Scale Software in LLVM
- 

#### Keynote/Tutorial Speech (since 2010)

- Keynote Speaker, IEEE Big Data Congress Taipei Satellite Session, Taipei, Taiwan, 2015  
Title – SSBDS: A High-Performance Big Data Service for Research and Education
  - HSA Tutorial Speaker, International Symposiums on Computer Architecture (ISCA), Minneapolis, USA, 2014  
Title – HSA Runtime
  - Keynote Speaker, China Conference on Cloud Computing, Guangzhou, China, 2013  
Title – UniCloud: A Community/Hybrid Cloud Platform for Research and Education
  - Keynote Speaker, International Conference on Computational Intelligence, Modeling and Simulation, Bali, Indonesia, 2010  
Title – Computer Go Game
- 

#### Conference Chairmanships (Since 2006)

- General Co-Chair of International Conference on Big Data Intelligence and Computing (DataCom) 2015, December 19-21, 2015
- Program Co-Chair of IEEE International Conference on Cloud Computing and Big Data (CCBD), December 4 – 6, 2015
- Program Co-Chair of IEEE International Conference on Parallel and Distributed Systems (ICPADS), December 16 – 19, 2014
- General Co-Chair of IEEE International Conference on Cloud Computing



Technology and Science (CouldCom), December 3-6, 2012

- Track Co-Chair of International Conference on Parallel Processing (ICPP), September 13-16, 2011
- Track Co-Chair of International Conference on Contemporary Computing (IC3), August 8-10, 2010
- General Co-Chair of International Symposium on Information Assurance and Security Management (IASM), December 14-16, 2009
- Track Co-Chair of International Symposium on Pervasive Systems, Algorithms, and Networks (I-SPAN), December 14-16, 2009
- Workshop Co-Chair of National Computer Symposium (NCS) 2009, November 27-28, 2009
- Track Co-Chair of International Conference on Contemporary Computing (IC3), August 17-19, 2009
- Program Co-Chair of International Symposium on Grid and Distributed Computing (GDC), December 13-15, 2008
- Award Chair of IEEE Asia-Pacific Services Computing Conference (APSCC), December 09-12, 2008
- Program Co-Chair of IEEE Asia-Pacific Computer Systems Architecture Conference (ACSAC), August 20-22, 2008
- Program Co-Chair of International Conference on Grid and Pervasive Computing (GPC 2006), May 2-4, 2006

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Program Committee memberships (Since 2007)

- IEEE International Conference on Communications (ICC-2018) SAC Symposium on Big Data Track, May 20-24, 2018
- IEEE International Global Communications Conference (Globecom-2017) SAC on Big Data Track, December 4-8, 2017
- IEEE International Conference on Communications (ICC-2017) SAC Symposium on Big Data Networking Track, May 21-25, 2017
- IEEE International Global Communications Conference (Globecom-2016) SAC on Big Data Track, December 4-8, 2016
- International Conference on Network and Parallel Computing (NPC-2016), October 28-29, 2016
- International Conference on Green and Pervasive, and Cloud Computing (GPC-2015), May 4-6, 2015
- IEEE International Conference on Cloud Engineering (IC2E-2015), March 9-12, 2015
- IEEE International Conference on Green Computing and Communications (GreenCom-2014), September 1-3, 2014
- IEEE International Conference on Embedded Computing (EmbeddedCom-2014), August 24-27, 2014
- International Conference on Green and Pervasive, and Cloud Computing (GPC-2014), May 26-28, 2014

- IEEE International Conference on Green Computing and Communications (GreenCom-2013), August 20-23, 2013
- International Conference on Smart Grids and Green IT Systems (SMARTGREENS-2013), May 9-10, 2013
- International Conference on Grid and Pervasive computing (GPC-2013), May 9-11, 2013
- IEEE Asia Pacific Cloud Computing Congress (APCloud-2012), November 14-17, 2012
- IEEE International Parallel & Distributed Processing Symposium (IPDPS-2012) May 21-25, 2012
- International Conference on Grid and Pervasive Computing (GPC-2012), May 11-13, 2012
- IEEE International Conference on High Performance Computing (HiPC-2011), December 19-22, 2011
- International Symposium on Grid and Distributed Computing (GDC-2011), December 8-10, 2011
- International Conference on Network and Parallel Computing (NPC-2011), October 21-23, 2011
- International Conference on Contemporary Computing (IC3-2011), August 8-10, 2011
- IEEE/ACM International Conference on Green Computing and Communications (GreenCom-2011), August 4-5, 2010.
- IEEE International Symposium on Parallel and Distributed Processing with Applications (ISPA-2011), May 26-28, 2011.
- International Conference on Grid and Pervasive Computing (GPC-2011), May 11-13, 2011
- International Symposium on Grid and Distributed Computing (GDC-2010), November 11-13, 2010
- IEEE/ACM International Conference on Green Computing and Communications (GreenCom-2010), October 30-November 1, 2010.
- International Conference on Advances in P2P Systems (AP2PS-2010), October 25 - 30, 2010.
- IEEE International Conference on Embedded Software and Systems (ICCESS-2010) June 29-July 1, 2010.
- International Conference on Grid and Pervasive Computing (GPC-2010), May 10-13, 2010
- International Conference on Frontier of Computer Science and Technology (FCST-2009), December 17-19, 2009
- IEEE International Conference on High Performance Computing (HiPC-2009), December 16-19, 2009
- International Symposium on Grid and Distributed Computing (GDC-2009), December 10-12, 2009
- International Conference on Embedded and Multimedia Computing (EM-Com-2009), December 10 - 12, 2009
- International Conference on Computer Science and its Applications (CSA-2009), December 10 - 12, 2009

- International Conference on Parallel and Distributed Systems (ICPADS-2009), December 9 – 11, 2009
- International Conference on Network and Parallel Computing (NPC-2009), October 19-21, 2009
- International Conference on Advances in Peer-to-Peer Systems (AP2PS-202009), October 11-16, 2009
- International Conference on Embedded Software and Systems (ICCESS-2009), May 25-27, 2009
- International Workshop on Service-Oriented P2P Networks (ServP2P-2009), May 18-21, 2009
- International Conference on Grid and Pervasive Computing (GPC-2009), May 4-8, 2009
- International Conference on Information Systems, Technology and Management (ICISTM-2009), March 12-13, 2009
- High Performance Computing Asia 2009, March 2-6, 2008
- IEEE International Conference on High Performance Computing (HiPC-2008), December 17-20, 2008
- International Conference on Embedded and Ubiquitous Computing Conference (EUC-2008), December 17-20, 2008
- International Symposium on Ubiquitous Multimedia Computing (UMC-2008), October 14-16, 2008
- IEEE International Symposium on Embedded Computing (SEC-2008), October 6-8, 2008
- International Conference on Network and Parallel Computing (NPC-2008), September 18-21, 2008
- International Conference on Contemporary Computing (IC3-2008), August 7-9, 2008
- International Conference on Embedded Software and Systems (ICCESS-2008), July 28-31, 2008
- International Conference on Computational Science and Engineering (CSE-2008), June 25-27, 2008
- International Conference on Communications, Circuits, and Systems (ICCCAS-2008), May 25-27, 2008
- International Conference on Grid and Pervasive Computing (GPC-2008), May 25-28, 2008
- International Conference on Advanced Information Networking and Applications (AINA-2008), March 25-28, 2008
- International Conference on Information Systems, Technology and Management (ICISTM-2008), March 6-8, 2008
- International Conference on Embedded and Ubiquitous Computing Conference (EUC-2007), December 10-13, 2007
- International Conference on Grid and Pervasive Computing (GPC-2007), May 2-4, 2007

- Deputy director of library, December 2003 – July 2012
  - Deputy director of computer and communication research center, August 2008 – July 2015
  - Ph.D admission administration, August 2002 – July 2015
  - Mater admission administration, August 2002 – July 2015
  - Faculty recruiting committee member, August 2002 – July 2009
- 

#### University and Department Service at FCU

- Chairman of Department of Information Engineering and Computer Science, August 1998 – July 2001
  - Network Division Director of Computer Center, January 1994 – July 1997
  - Education Division Director of Computer Center, August 1993 – December 1993
  - Ph.D admission administration, August 1994 – July 2002
  - Mater admission administration, August 1992 – July 2002
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#### Teaching Activities

##### Courses taught at NTHU

- CS135502 – Introduction to C Programming Language,
  - CS235102 – Data Structure,
  - CS242202 – Assembly Language and System Programming,
  - CS340402 – Compiler Design,
  - CS342302 – Operating Systems.
  - CS510400 – Embedded Software for Networked SoC Systems,
  - CS510500 – Embedded Processor Design,
  - CS541000 – Virtualization Techniques,
  - CS542100 – Cloud Computing,
  - CS542200 – Parallel Programming,
  - CS542800 – Heterogeneous System Architecture.
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