

Pao-Ann Hsiung's Publication List

Last Updated: October 9, 2013

(A) International Journal Papers

- [1] **P.-A. Hsiung**, S.-J. Chen, T.-C. Hu, and S.-C. Wang, "PSM: An Object-Oriented Synthesis Approach to Multiprocessor System Design," *IEEE Transactions on VLSI Systems*, Vol. 4, No. 1, pp. 83-97, March 1996.
- [2] **P.-A. Hsiung**, T.-Y. Lee, and S.-J. Chen, "MOBnet: An Extended Petri Net Model for the Distributed Object-oriented System-level Synthesis of Multiprocessor Systems," *IEICE Transactions on Information and Systems*, Vol. E80-D, No. 2, pp. 232-242, February 1997.
- [3] **P.-A. Hsiung**, C.-H. Chen, T.-Y. Lee, and S.-J. Chen, "ICOS: An Intelligent Concurrent Object-Oriented Synthesis Methodology for Multiprocessor Systems," *ACM Transactions on Design Automation of Electronic Systems*, Vol. 3, No. 2, pp. 109-135, April 1998.
- [4] **P.-A. Hsiung**, "CMAPS: A Cosynthesis Methodology for Application-Oriented Parallel Systems," *ACM Transactions on Design Automation of Electronic Systems*, Vol. 5, No. 1, pp. 51-81, January 2000.
- [5] **P.-A. Hsiung**, "Hardware-Software Timing Coverification of Concurrent Embedded Real-Time Systems," *IEE Proceedings on Computers and Digital Techniques*, Vol. 147, No. 2, pp. 81-90, March 2000.
- [6] J.-M. Fu, T.-Y. Lee, **P.-A. Hsiung**, and S.-J. Chen, "Hardware-Software Timing Coverification of Distributed Embedded Systems," *IEICE Transactions on Information and Systems*, Vol. E83-D, No. 9, pp. 1731-1740, September 2000.
- [7] **P.-A. Hsiung**, "Embedded Software Verification in Hardware-Software Codesign," *Journal of Systems Architecture — the Euromicro Journal*, Vol. 46, No. 15, pp. 1435-1450, Elsevier Science, the Netherlands, December 2000.
- [8] **P.-A. Hsiung**, "POSE: A Parallel Object-Oriented Synthesis Environment," *ACM Transactions on Design Automation of Electronic Systems*, Vol. 6, No. 1, pp. 67-92, January 2001.
- [9] T.-Y. Lee, **P.-A. Hsiung**, and S.-J. Chen, "Hardware-Software Multi-Level Partitioning for Distributed Embedded Multiprocessor Systems," *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, Vol. E48-A, No. 2, pp. 614-626, February 2001.

- [10] T.-Y. Lee, **P.-A. Hsiung**, and S.-J. Chen, “DESC: A Hardware-Software Codesign Methodology for Distributed Embedded Systems,” *IEICE Transactions on Information and Systems*, Vol. E84-D, No. 3, pp. 326–339, March 2001.
- [11] F. Wang and **P.-A. Hsiung**, “Efficient and User-Friendly Verification,” *IEEE Transactions on Computers*, Vol. 51, No. 1, pp. 61–83, January 2002.
- [12] T.-Y. Lee and **P.-A. Hsiung**, “Embedded Software Synthesis and Prototyping,” *IEEE Transactions on Consumer Electronics*, Vol. 50, No. 1, pp. 386–392, February 2004.
- [13] **P.-A. Hsiung**, S.-W. Lin, C.-H. Tseng, T.-Y. Lee, J.-M. Fu, and W.-B. See, “VERTAF: An Application Framework for the Design and Verification of Embedded Real-Time Software,” *IEEE Transactions on Software Engineering*, Vol. 30, No. 10, pp. 656–674, October 2004.
- [14] **P.-A. Hsiung**, T.-Y. Lee, J.-M. Fu, and W.-B. See, “Formal Verification of Real-Time Embedded Software in an Object-Oriented Application Framework,” *IEE Proceedings — Computers and Digital Techniques*, Vol. 151, No. 6, pp. 417–434, November 2004.
- [15] **P.-A. Hsiung**, “Synthesis and Control of Soft Embedded Real-Time Systems,” *Annual Review of Communications*, International Engineering Consortium, USA, Vol. 57, 2004.
- [16] **P.-A. Hsiung** and H.-C. Kao, “Device-Centric Low-Power Scheduling for Real-Time Embedded Systems,” *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)*, Vol. 15, No. 2, pp. 461–466, World Scientific Publishing, Singapore, April 2005.
- [17] **P.-A. Hsiung**, T.-Y. Lee, J.-M. Fu, and W.-B. See, “SESAG: An Object-Oriented Application Framework for Real-Time Systems,” *Software Practice and Experience*, Vol. 35, No. 10, pp. 899–921, John Wiley & Sons, August 2005.
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- [19] Y.-R. Chen and **P.-A. Hsiung**, “Automatic Failure Analysis using Safecharts,” *International Journal of Software Engineering and Knowledge Engineering (IJSEKE)*, Vol. 17, No. 1, pp. 57–78, World Scientific Publishing, Singapore, February 2007. (an SEKE’2005 special issue, out of 225 submissions and 115 paper presentations, only 5 papers were published in this special issue)
- [20] **P.-A. Hsiung**, Y.-R. Chen, and Y.-H. Lin, “Model Checking Safety-Critical Systems using Safecharts,” *IEEE Transactions on Computers*, Vol. 56, No. 5, pp. 692–705, May 2007.
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- [23] K.-J. Shih, C.-C. Hung, and **P.-A. Hsiung**, “Reconfigurable Hardware Module Sequencer for Dynamically Partially Reconfigurable Systems,” *International Journal of Electrical Engineering (IJEE)*, Vol. 15, No. 2, pp. 87–96, April 2008. (invited for publication in this VLSI Design/CAD Symposium 2007 special issue) (EI)
- [24] **P.-A. Hsiung**, C.-S. Lin, and C.-F. Liao, “Perfecto: A SystemC-based Design Space Exploration Framework for Dynamically Reconfigurable Architectures,” *ACM Transactions on Reconfigurable Technology and Systems (TRETTS)*, Vol. 1, No. 3, Article 17, September 2008.
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- [26] **P.-A. Hsiung**, S.-W. Lin, Y.-R. Chen, C.-H. Huang, and W.C. Chu, “Modeling and Verification of Real-Time Embedded Systems with Urgency,” *Journal of Systems and Software*, Vol. 82, No. 10, pp. 1627–1641, Elsevier Inc., October 2009. (SCI)
- [27] C. Shih, **P.-A. Hsiung**, T.-K. Liu, Y. Yang, C.-H. Lin, C.-H. Wan, C.-S. Koong, and W. C. Chu, “The Integration of a Vision based Tracking Platform, Visual Instruction and Error Analysis Models for an Efficient Billiard Training System,” *Optical Engineering*, Vol. 48, No. 2, February 2009. (SCI)
- [28] C.-H. Huang and P.-A. Hsiung, “Hardware Resource Virtualization for Dynamically Partially Reconfigurable Systems,” *Embedded Systems Letters*, Volume 1, Issue 1, IEEE Press, USA, 2009. (EI)
- [29] C.-S. Lin, **P.-A. Hsiung**, S.-W. Lin, Y.-R. Chen, C.-H. Lu, S.-Y. Tong, W.-T. Su, W. C. Chu, C.-H. Shih, N.-L. Hsueh, C.-H. Chang, and C.-S. Koong, “VERTAF/Multi-Core: A SysML-based Application Framework for Multi-Core Embedded Software Development,” *Journal of the Chinese Institute of Engineers*, Vol. 32, No. 7, pp. 985–991, November 2009 (SCI).
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- [32] C.-H. Lu, H.-W. Liao, and **P.-A. Hsiung**, “Multi-objective placement of reconfigurable hardware tasks in real-time system,” *International Journal of Embedded Systems*, Vol. 4, No. 3/4, pp. 195–203, Inderscience Publishers, 2010. (EI)

- [33] C.-H. Huang, **P.-A. Hsiung**, and J.-S. Shen, “Model-Based Platform-Specific Co-Design Methodology for Dynamically Partially Reconfigurable Systems with Hardware Virtualization and Preemption,” *Journal of Systems Architecture*, Vol. 56, No. 11, pp. 545–560, November 2010. (SCI)
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- [40] C. Yu, M.-H. Yen, **P.-A. Hsiung**, and S.-J. Chen, “A Low-Power 64-point Pipeline FFT/IFFT Processor for OFDM Applications,” *IEEE Transactions on Consumer Electronics*, Vol. 57, No. 1, pp. 40, February 2011. (SCI)
- [41] N.-L. Hsueh, P.-H. Chu, **P.-A. Hsiung**, M.-J. Chuang, W. Chu, C.-H. Chang, C.-S. Koong, C.-H. Shih, and C.-T. Yang, “A Pattern-based Refactoring Approach for Multi-Core System Design,” *International Journal of Advancements in Computing Technology*, Vol. 3, No. 9, pp. 196-209, AICIT, October 2011 (EI).
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- [43] S.-W. Lin and **P.-A. Hsiung**, “Model Checking Prioritized Timed Systems,” *IEEE Transactions on Computers*, Vol. 61, No. 6, pp. 843-856, June 2012. (SCI)
- [44] W. C.-C. Chu, C.-T. Yang, C.-W. Lu, C.-H. Chang, J.-N. Chen, **P.-A. Hsiung**, H.-M. Lee, “Cloud Computing in Taiwan,” *IEEE Computer*, Vol. 45, No. 6 pp. 42-50, June 2012. (SCI, IF=1.812)

- [45] C. Shih, C.S. Koong, and **P.-A. Hsiung**, “Billiard Combat Modeling and Simulation Based on Optimal Cue Placement Control and Strategic Planning,” *Journal of Intelligent and Robotic Systems*, Vol. 67, No. 1, pp. 25-41, July 2012.
- [46] J.-S. Shen, **P.-A. Hsiung**, and C.-H. Huang, “Learning-based Adaptation to Applications and Environments in a Reconfigurable Network-on-Chip for Reducing Crosstalk and Dynamic Power Consumption,” *Computers & Electrical Engineering*, Elsevier, Vol. 39, No. 2, pp. 453-464, February 2013. (SCI IF=0.837)
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- [48] C.-H. Huang and **P.-A. Hsiung**, “Virtualizable Hardware/Software Design Infrastructure for Dynamically Partially Reconfigurable Systems,” *ACM Transactions on Reconfigurable Technology and Systems*, 2013 (to be published, accepted in April 2013).
- [49] C.-S. Lin, C.-S. Lin, **P.-A. Hsiung**, and W.C. Chu, “Design Issues in a Performance Monitor for Multi-core Embedded Software,” *Journal of Signal Processing Systems*, 2013 (to be published, accepted in May 2013).
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- [51] J.-S. Shen and **P.-A. Hsiung**, “Reasoning and Learning-based Dynamic Codec Reconfiguration for Varying Processing Requirements in Network-on-Chip,” *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, (to be published, accepted in July 2013).
- [52] H.-L. Chao, C.-C. Wu, C.-Y. Peng, C.-H. Lu, J.-S. Shen, and **P.-A. Hsiung**, “Dynamic Partially Reconfigurable Architecture for Fast Fourier Transform Computation,” *International Journal of Embedded Systems*, Special Issue for EUC’2013, Inderscience Publishers, accepted for publication, 2013. (EI)

(B) Books and Chapters

- [53] **P.-A. Hsiung**, *System Level Synthesis for Parallel Computers*, Ph.D. Dissertation, Graduate Institute of Electrical Engineering, National Taiwan University, June 1996.
- [54] H. Arabnia, Editor, **P.-A. Hsiung**, et al. Associate Editor, *Proceedings of the 1999 International Conference on Parallel and Distributed Processing Techniques and Applications*, Volumes I-VI, Computer Science Research, Education, and Applications (CSREA) Press (ISBN), USA, June 1999.
- [55] **P.-A. Hsiung** and Farn Wang (Editors), *Proceedings of the International Workshop on Real-Time Constraints*, (RTC’99, Alexandria, Virginia, USA), October 1999.

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(C) International Conference Papers

- [67] **P.-A. Hsiung**, T.-Y. Lee, and S.-J. Chen, "Object-Oriented Technology Transfer to Multi-processor System-Level Synthesis," In *Proc. of the 24th International Conference on Technology of Object-Oriented Languages and Systems (TOOLS'97)*, pp. 339–348, September 1997.

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