

ANKUR SRIVASTAVA

Department of Electrical and Computer Engineering, 2317 A.V. Williams Building,
University of Maryland, College Park, MD 20742.

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Home page: <http://www.ece.umd.edu/~ankurs>

EDUCATION

- **Ph.D. Computer Science**, University of California, Los Angeles, Sept 2002
Dissertation: Methodologies for Predictability Optimization in VLSI Systems
Advisor: Prof. Majid Sarrafzadeh
Winner: **Outstanding PhD Dissertation Award, Computer Science Dept. UCLA 2002**
 - **M.S. Electrical and Computer Engineering**, Northwestern University, June 2000
Thesis: Timing Driven Gate Duplication in Technology Independent Phase
 - **B.Tech. Electrical Engineering**, Indian Institute of Technology-Delhi May 1998
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RESEARCH INTERESTS

High Performance Low Energy Computer Systems, Embedded Systems, Algorithms, Sensor Networks, Datacenter and Optimization

PROFESSIONAL EXPERIENCE

- **Associate Professor**
Dept of ECE and Institute for Systems Research ISR, University of Maryland, College Park, July 2009 onwards
 - **Assistant Professor:**
Dept. of ECE, University of Maryland, College Park, Oct 2002- July 2009
Joint Appointment, Institute for Systems Research ISR, University of Maryland, 2008-2011
 - **Graduate Research Assistant:**
Jan 2001 to Fall 2002, Embedded and Reconfigurable Systems Lab, CS Department UCLA.
Fall 1999 to Jan 2001, NuCAD Lab, Northwestern University
Fall 1998 to Fall 1999, ACME Lab Northwestern University
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AWARDS AND RECOGNITIONS

- Outstanding PhD Dissertation Award: Computer Science Department, UCLA 2002
 - International Symposium on Physical Design 2007 Best Paper Award
 - International Conference on Computer Aided Design 2003 Best Paper Nomination
 - Research Cited in an EE Times Article,
<http://www.eet.com/news/latest/showArticle.jhtml?articleID=185302541>
 - Research Cited in EE Times Article,
<http://www.eetimes.com/news/design/showArticle.jhtml?articleID=198100044>
 - George Corcoran Outstanding Teaching Award, ECE Department University of Maryland, 2007-2008
 - Honored at Scholarship and Research Celebration at University of Maryland
 - ACM Design Automation Best Dissertation Award Nomination 2003
-

PHD STUDENT ACHIEVEMENTS AND PLACEMENT

- Dr Azadeh Davoodi:
Winner: Graduate School Dissertation Fellowship, Spring 2006
Assistant Professor: Dept. of ECE, University of Wisconsin at Madison, Fall 2006-Till Date
Received Faculty Positions From: Colorado State University, Virginia Tech, U-Wisconsin Madison and others.
 - Dr Vishal Khandelwal
Winner: ECE Dissertation Fellowship, Spring 2007
Advanced Technology Group, Core Research Group of Synopsys Inc Fall 2007-Till Date
Faculty Position Offers: Iowa State University
ACM Young Student Support Award at DAC 2004 and 2005
ACM/SIGDA Cadathalon Grant at ICCAD 2004, ACM/SIGDA University Booth Grant at DAC 2004
University of Maryland Jacob K. Goldhaber Award to present paper at ISLPED 2004
-

LIST OF PUBLICATIONS, PATENTS, AND TALKS

(Names in bold indicate students directly advised by Ankur Srivastava)

BOOK CHAPTERS

1. **V. Khandelwal** and A. Srivastava, "Basic Algorithmic Techniques", *To Appear in C. Alpert, D. Mehta and S. Sapatnekar Edited Handbook of Physical Design Automation*
2. A. Srivastava, J. Sobaje, M. Potkonjak and M. Sarrafzadeh, "Optimal Node Scheduling for Effective Energy Usage in Sensor Networks", *System level Power Optimization for Wireless Multimedia Communication, Kulwer Academic Publishers, 2002.*

ARTICLES IN REFEREED JOURNALS

1. **Yufu Zhang**, Ankur Srivastava, "Accurate Temperature Estimation Using Noisy Thermal Sensors for Gaussian and Non-Gaussian Cases", *To appear in IEEE Trans. on Very Large Scale Integration Systems (TVLSI)*
2. **Yufu Zhang**, Ankur Srivastava and Mohamed Zahran, "On-Chip Sensor Driven Efficient Thermal Profile Estimation Algorithms", *To appear in ACM Transactions on Design Automation of Electronic Systems(TODAES)*
3. M. Peckerar, D. Sander, A. Srivastava, A. Foli and U. Vishkin, "Electron Beam and Optical Proximity Effect Reduction for Nanolithography: New Results", *Journal on Vacuum Science and Technology B.*
4. **A. Davoodi** and A. Srivastava, "Variability-Driven Gate Sizing for Binning Yield Optimization", *IEEE Transactions on VLSI Systems (TVLSI08)*, Vol 16, No 6, pp. 683-692, June 2008
5. A. Sankaranarayanan, A. Srivastava and R. Chellappa "Algorithmic and Architectural Optimizations for Computationally Efficient Particle Filtering", *IEEE Transactions on Image Processing, (TIP)*, Vol 17, No5, pp. 737-748, May 2008
6. **V. Khandelwal** and A. Srivastava, "Variability-Driven Formulation for Simultaneous Gate Sizing and Post-Silicon Tunability Allocation," *IEEE Transactions on Computer Aided Design (TCAD08)*, Vol 27, No 4, pp. 610-620, April 2008
7. **V. Khandelwal** and A. Srivastava, "Active Mode Leakage Reduction Using Fine-Grained Forward Body Biasing Strategy", *Integration the VLSI Journal (Integration)*, Vol. 40, No. 4, pp. 561-570, July 2007.
8. **V. Khandelwal** and A. Srivastava, "Leakage Control Through Fine-Grained Placement and Sizing of Sleep Transistors", *IEEE Transactions on Computer Aided Design (TCAD07)*, Vol 26, No 7, pp. 1246-1255, July 2007
9. **V. Khandelwal** and A. Srivastava, "A Quadratic Modeling-Based Framework for Accurate Statistical Timing Analysis Considering Correlation", *IEEE Transactions on VLSI Systems*

(*TVLSI07*), Vol 15, No. 2, pp. 206-215, February 2007

10. **A. Davoodi, V. Khandelwal**, A. Srivastava, "Probabilistic Evaluation of Solutions in Variability-Driven Optimization", *IEEE Transactions on Computer Aided Design (TCAD06)*, Vol 25, No 12, pp. 3010-3016, December 2006.
11. J. L. Wong, **A. Davoodi, V. Khandelwal**, A. Srivastava, M. Potkonjak, "A Statistical Methodology for Wire-length Prediction", *IEEE Transactions on Computer Aided Design (TCAD'06)*, Vol. 25, No. 7, pp. 1327-1336, July 2006
12. **A. Davoodi**, A. Srivastava, "Effective Techniques for the Generalized Low Power Binding Problem", *ACM Transactions on Design Automation of Electronic Systems, (TODAES'06)*, Vol. 11, No. 1, pp. 52-69, January 2006
13. **A. Davoodi** and A. Srivastava, "Power-Driven Simultaneous Resource Binding and Floorplanning: A Probabilistic Approach", *IEEE Transactions on VLSI Systems (TVLSI'05)*, Vol. 13, No. 8, pp. 934-942, August 2005
14. **V. Khandelwal, A. Davoodi**, A. Srivastava, "Simultaneous Vt Selection and Assignment for Leakage Optimization", *IEEE Transactions on VLSI Systems (TVLSI'05)*, Vol. 13, No. 6, pp. 762-765, June 2005
15. **A. Davoodi** and A. Srivastava: "Voltage Scheduling Under Uncertainties: A Risk Management Perspective", *ACM Transactions on Design Automation of Electronic Systems (TODAES'05)*, Vol. 10, No. 2, pp.354-368, April 2005
16. A. Srivastava, S. Ogrenç Memik, B. Kyung Choi and M. Sarrafzadeh, "On Effective Slack Management in the Post Scheduling Phase", *IEEE Transactions on Computer Aided Design (TCAD'05)*, Vol. 24, No. 4, pp. 645-653, April 2005.
17. **A. Davoodi, V. Khandelwal** and A. Srivastava, "Empirical Model for Net Length Probability Distribution and Applications", *IEEE Transactions. on VLSI Systems (TVLSI'04)*, Vol. 12, No. 10, pp. 1066-1075, October 2004
18. A. Srivastava, R. Kastner, C. Chen and M. Sarrafzadeh, "Timing Driven Gate Duplication", *IEEE Transactions on VLSI Systems (TVLSI'04)* Vol 12, No 1, pp. 42-51, January 2004
19. C. Chen, E. Bozorgzadeh, A. Srivastava and M. Sarrafzadeh, "Budget Management and its Applications", *ALGORITHMICA*, Vol 34, pages 261-275, 2002
20. A. Srivastava E. Kursun and M. Sarrafzadeh, "Predictability in RT-Level Designs", *Journal of Circuits, Systems and Computers, Special Issue on Low Power IC Designs. (JCSC'02)*, Vol 11 No 4, pp. 323 – 332, August 2002
21. S. Ghiasihafezi, A. Srivastava, X. Yang and M. Sarrafzadeh, "Optimal Energy Aware Clustering in Sensor Networks", *SENSORS Journal*, Vol 2, No. 7, pp. 258-269, July 2002
22. A. Srivastava, C. Chen and Majid Sarrafzadeh, "Timing Driven Gate Duplication in the Technology Independent Stage", *IEICE Transactions on Fundamentals of Electronics*,

Communications and Computer Sciences (IEICE'01), vol. E84-A, pp. 2673-2680, November 2001.

23. C.Chen, A. Srivastava and M. Sarrafzadeh, "On Gate-Level Power Optimization Using Dual Supply Voltages", *IEEE Transactions on VLSI Systems (TVLSI'01)*, Vol. 9, No 5, pp. 616-629, October 2001.
24. A. Srivastava, R. Kastner and M. Sarrafzadeh, "On the Complexity of Gate Duplication", *IEEE Transactions on Computer Aided Design (TCAD'01)*, Vol. 20, No. 9, pp. 1170-1176, September. 2001.
25. A.H. Farrahi, C. Chen, A. Srivastava, M. Sarrafzadeh and G. Tellez, "Activity Driven Clock Design", *IEEE Transactions on Computer Aided Design (TCAD01)*, Vol. 20, No. 6, pp. 705-714, June 2001.

REFEREED CONFERENCE AND WORKSHOP PAPERS

1. **Domenic Forte**, Ankur Srivastava, "Energy and Thermal-Aware Video Coding via Encoder/Decoder Workload Balancing", *International Symposium on Low Power Electronics and Design 2010 (ISLPED'10)*, Aug. 2010
2. **Bing Shi**, Yufu Zhang, Ankur Srivastava, "Dynamic thermal management for single and multi-core processors under soft thermal constraints", *International Symposium on Low Power Electronics and Design 2010 (ISLPED'10)*, Aug. 2010
3. **Bing Shi**, Ankur Srivastava, "Thermal and Power-Aware Task Scheduling for Hadoop Based Storage Centric Datacenters", *1'st International Green Computing Conference (IGCC'10)*, Aug. 2010
4. **Yufu Zhang** and Ankur Srivastava, "Adaptive and Autonomous Thermal Tracking for High Performance Computing Systems", *Proceedings of IEEE/ACM Design Automation Conference, (DAC10)* June 2010
5. **Domenic Forte**, Ankur Srivastava, "Thermal-Aware Sensor Scheduling for Distributed Estimation", *International Conference on Distributed Computing in Sensor Systems 2010 (DCOSS'10)*, June 2010
6. **Y. Zhang, B. Shi** and A. Srivastava, "A Statistical Framework for Designing On-Chip Thermal Sensing Infrastructure in Nano-Scale Systems", *Procs of ACM International Symposium on Physical Design (ISPD10)*, March 2010
7. **Y. Zhang** and A. Srivastava, "Accurate Temperature Estimation Using Noisy Thermal Sensors", *Proc. Design Automation Conference (DAC09)*, July 2009
8. **Y. Zhang**, A. Srivastava and M. Zahran, "Chip Level Thermal Profile Estimation Using On-chip Temperature Sensors", *Proceedings of IEEE International Conference on Computer Design (ICCD08)*, October 2008

9. **V. Khandelwal** and A. Srivastava, "Monte Carlo Driven Stochastic Optimization Framework for Handling Fabrication Variability", *Proc. International Conference on Computer Aided Design (ICCAD07)*, November 2007
10. J. Wong, **A. Davoodi**, **V. Khandelwal**, A. Srivastava and M. Potkonjak, "Statistical Timing Analysis Using Kernel Smoothing", *Proc. International Conference on Computer Design (ICCD07)*, October 2007
11. **V. Khandelwal** and A. Srivastava, "Variability-Driven Formulation for Simultaneous Gate Sizing and Post-Silicon Tunability Allocation", *Proc. International Symposium on Physical Design (ISPD07)* April 2007. **WINNER BEST PAPER AWARD.**
12. **A. Dobhal**, **V. Khandelwal** and A. Srivastava, "Efficient and Accurate Statistical Timing Analysis for Non-linear, Non-Gaussian Variability with Incremental Attributes", *Proc International Conference on VLSI Design* January 2007
13. **A. Dobhal**, **V. Khandelwal**, **A. Davoodi** and A. Srivastava, "Variability Driven Joint Leakage, Delay Optimization With Provable Convergence", *Proc. International Conference on VLSI Design* January 2007
14. **A. Davoodi** and A. Srivastava, "Variability-Driven Gate Sizing for Binning Yield Optimization", *Proc. Design Automation Conference (DAC06)* July 2006
15. **A. Davoodi** and A. Srivastava, "Variability Driven Gate Sizing for Binning Yield Optimization ", *Proc. International Workshop on Logic and Synthesis (IWLS'06)*, June 2006
16. **V. Khandelwal** and A. Srivastava, "Stochastic Programming Based Optimization Framework in Presence of Variability", "*Proc. International Workshop on Logic and Synthesis (IWLS'06)*, June 2006
17. **A. Dobhal**, **V. Khandelwal** and A. Srivastava, "Efficient and Accurate Statistical Timing Analysis for Non-Linear, Non-Gaussian Variability With Incremental Attributes", *Proc. International Workshop on Logic and Synthesis (IWLS'06)*, June 2006
18. **A. Davoodi** and A. Srivastava, "Probabilistic Evaluation of Solutions in Variability-Driven Optimization", *Proc. International Symposium on Physical Design (ISPD'06)* , April 2006
19. **A. Davoodi** and A. Srivastava, "Variability-Driven Buffer Insertion Considering Correlations", *Proc. of International Conference on Computer Design (ICCD'05)* October 2005
20. A. Sankaranarayanan, R. Chellappa and A. Srivastava, "Algorithmic and Architectural Design Methodology for Particle Filters in Hardware", *Proc. of International Conference on Computer Design (ICCD'05)* October 2005
21. **A. Davoodi** and A. Srivastava, "Probabilistic Dual-Vth Leakage Optimization Under Variability ", *International Symposium on Low Power Electronics and Design (ISLPED'05)* August 2005

22. **V. Khandelwal** and A. Srivastava, "A General Framework for Accurate Statistical Timing Analysis Considering Correlations", *Proc. Design Automation Conference, (DAC'05)* June 2005
23. **A. Davoodi** and A. Srivastava, "Variability Driven Buffer Insertion Considering Correlations", *Proc. International Workshop on Logic and Synthesis (IWLS'05)*, June 2005
24. **A. Davoodi** and A. Srivastava, "Efficient Stochastic Pruning for Variability-Driven Dual-Vth Leakage Optimization", *Proc. International Workshop on Logic and Synthesis (IWLS'05)*, June 2005
25. **V. Khandelwal** and A. Srivastava, "A General Framework for Accurate Statistical Timing Analysis Considering Correlations", *Proc. International Workshop on Logic and Synthesis (IWLS'05)*, June 2005
26. L. Yuan, G Qu and A. Srivastava, "VLSICAD Tool Protection by Birthmarking Design Solutions", *Proc. Great Lakes Symposium on VLSI (GLSVLSI'05)* April 2005
27. **A. Davoodi** and A. Srivastava, "Wake-up Protocols for Controlling Current Surges in MTCMOS-based Technology", *Proc. Asia South Pacific Design Automation Conference (ASP-DAC'05)*, January 2005
28. **A. Davoodi** and A. Srivastava, "Simultaneous Floorplanning and Binding: A Probabilistic Approach", *Proc. Asia South Pacific Design Automation Conference (ASP-DAC'05)*, January 2005
29. **V. Khandelwal, A. Davoodi** and A. Srivastava, "Efficient Statistical Timing Analysis through Error Budgeting", *Proc. IEEE/ACM International Conference on Computer Aided Design (ICCAD'04)*, November 2004
30. **V. Khandelwal** and A. Srivastava, "Leakage Control Through Fine-Grained Placement and Sizing of Sleep Transistors", *Proc. IEEE/ACM International Conference on Computer Aided Design (ICCAD'04)*, November 2004
31. J. Wong, **A. Davoodi, V. Khandelwal**, A. Srivastava and M. Potkonjak, "Wire-length Prediction using Statistical Techniques", *Proc. IEEE/ACM International Conference on Computer Aided Design (ICCAD'04)*, November 2004
32. **A. Davoodi, V. Khandelwal** and A. Srivastava, "Variability Inspired Implementation Selection Problem", *Proc. IEEE/ACM International Conference on Computer Aided Design (ICCAD'04)*, November 2004
33. **V. Khandelwal** and A. Srivastava, "Active Mode Leakage Reduction Using Fine-Grained Forward Body Biasing Strategy", *Proc. International Symposium on Low Power Electronics and Design (ISLPED'04)* August 2004.
34. **V. Khandelwal** and A. Srivastava, "On Placement and Sizing of Sleep Transistors in Leakage Critical Circuits", *Proc. International Workshop on Logic Synthesis (IWLS'04)* June 2004

35. **A. Davoodi** and A. Srivastava, "Simultaneous Floorplanning and Binding: A Probabilistic Approach", *Proc. International Workshop on Logic and Synthesis (IWLS'04)*, June 2004
36. **A. Davoodi, V. Khandelwal** and A. Srivastava, "High Level Techniques for Power-Grid Noise Immunity ", *Proc. Great Lakes Symposium on VLSI (GLSVLSI'04)* , April 2004
37. A. Srivastava et al: "Achieving Design Closure Through Delay Relaxation Parameter", *Proc. IEEE/ACM International Conference on Computer Aided Design (ICCAD'03)*, November 2003
38. **V. Khandelwal, A. Davoodi**, A. Nanavati and A. Srivastava, "A Probabilistic Approach to Buffer Insertion *Proc. IEEE/ACM International Conference on Computer Aided Design (ICCAD'03)*, November 2003 **BEST PAPER AWARD NOMINEE.**
39. **A. Davoodi** and A. Srivastava, "Effective Graph Theoretic techniques for the Generalized Low Power Binding Problem", *Proc. International Symposium on Low Power Design (ISLPED'03)* August 2003
40. **A. Davoodi** and A. Srivastava, "Voltage Scheduling Under Uncertainties: A Risk Management Perspective", *Proc. International Symposium on Low Power Design (ISLPED'03)* August 2003
41. A. Srivastava, "Simultaneous Vt Selection and Assignment for Leakage Optimization", *Proc. International Symposium on Low Power Design (ISLPED'03)* August 2003
42. A. Srivastava and M. Sarrafzadeh, "Predictability: Definition Analysis and Optimization", *Proc. International Conference on Computer Aided Design (ICCAD'02)* November. 2002
43. E. Kursun, A. Srivastava, S. Ogrenci Memik and M. Sarrafzadeh, "Early Evaluation techniques for Low Power Binding", *Proc. International Symposium on Low Power Design (ISLPED'02)* August. 2002
44. A. Srivastava, J. Sobaje, M. Potkonjak and M. Sarrafzadeh, "Optimal Node Scheduling for Effective Energy Usage in Sensor Networks", *Proc. IEEE Workshop on Integrated Management of Power Aware Communications, Computing and Networking*, May 2002
45. S. Ogrenci-Memik, A. Srivastava and M. Sarrafzadeh, "Algorithmic Aspects of Uncertainty Driven Scheduling", *Proc. IEEE International Symposium on Circuits and Systems (ISCAS'02)* May. 2002.
46. A. Srivastava, C. Chen and M. Sarrafzadeh, "Exact Algorithm for Modifying Buffer Trees using Buffer Duplication in a Delay Optimization Perspective" ,*Proc. International Workshop on Logic Synthesis, (IWLS'01)* June 2001
47. M. Sarrafzadeh, E. Bozorgzadeh, R. Kastner and A. Srivastava, "Design and Analysis of Physical Design Algorithms", *Proc. International Symposium on Physical Design (ISPD'01)* April 2001
48. A. Ranjan, A. Srivastava and M. Sarrafzadeh, "Layout Aware Retiming", *Proc. Great Lakes*

Symposium on VLSI (GLSVLSI'01), March 2001.

49. R. Murgai, S. Chakraborty, R. Carragher, M. Prasad, A. Srivastava, N. Vemuri and H. Yoshida, "Layout Driven Logic Optimization", *Proc. Design Automation and Test in Europe (DATE'01)* February 2001.
50. A. Srivastava, C. Chen and M. Sarrafzadeh, "Timing Driven Gate Duplication in the Technology Independent Stage", *Proc. Asia and South Pacific Design Automation Conference, (ASPDAC'01)* January 2001
51. A. Srivastava, R. Kastner and M. Sarrafzadeh, "Timing Driven Gate Duplication: Complexity Issues and Algorithms", *Proc. International Conference on Computer Aided Design (ICCAD'00)* November. 2000
52. A. Srivastava, R. Kastner and M. Sarrafzadeh, "On The Complexity of Gate Duplication", *Proc. International Workshop on Logic Synthesis (IWLS'00)* June 2000

PATENTS

- **Invention Disclosure:** The Invention "Apparatus for Real Time Visual Tracking Using Hardware Acceleration" has been Officially Disclosed with the University of Maryland Office of Technology Commercialization. (A Preliminary step for filing patent)

INVITED TALKS (since joining UMD in 2002)

1. IBM TJ Watson Research Center: June 2004
2. Georgetown University, CS Department: March 2005
3. University of California, Irvine, ICS Department, June 2005
4. SUN Microsystems: October 2005
5. University of Toronto, EE Department, March 2006
6. Syracuse University, ECS Department, February 2008
7. ECE Colloquium, University of Maryland, March 2008
8. ECE Colloquium, University of Illinois Urbana Champagne, April 2010
9. Invited Talk, EECS, University of Michigan Ann Arbor, March 2010
10. Invited Talk, Dept of ECE, Georgia Institute of Technology

RESEARCH GRANTS

1. Decentralized Fusion, On Demand Activation, Awareness Sensor Networks (MASINT Consortium FY2005), **Status: Senior Investigator**
2. NSF: Lithography- Constrained Analysis of Very Large Scale Carbon Nanotube and Graphene Strip Embedded CMOS Digital ICs, \$120,492.00, 2006-2008, **PI: Dr Ankur Srivastava, ECE Dept. University of Maryland**, Co-PI: Dr Michael Fuhrer, Physics Dept.

University of Maryland.

3. Maryland Industrial Partnership Program: Image Exploitation System, \$77778, 2006-2007, PI: Prof Rama Chellappa, ECE Dept. University of Maryland , **Co-PI: Dr Ankur Srivastava , ECE Dept. University of Maryland**, Industrial Partner Acagi Inc.
 4. NSF: Optimization Schemes for Large Scale Digital Circuits in Presence of Fabrication Randomness, \$150,000, 2007-2010, **PI: Dr Ankur Srivastava , ECE Dept. University of Maryland.**
 5. ONR: Statistical and Semantic Approaches for Object, Activity, and Intent Recognition, \$990,000, 2009-2012, PI: Prof. Rama Chellappa ECE Dept. University of Maryland, **Co-PI Dr Ankur Srivastava ECE Dept. University of Maryland**, Co-PI Dr Anuj Srivastava Florida State University.
 6. NSF: Information Theoretic Multi-Core Processor Thermal Profile Estimation, \$450,000, 2009-2012, **PI Dr Ankur Srivastava, ECE Dept. University of Maryland**, Co-PI Prof Prakash Narayan, ECE Dept. University of Maryland
 7. NSF: Optimization Algorithms for Large-scale, Thermal-aware Storage Systems, \$907,000, 2009-2012, PI: Prof. Samir Khullar CS Department, University of Maryland, **Co-PI Dr Ankur Srivastava ECE Dept. University of Maryland**, Co-PI Dr Amol Deshpande, CS Department, University of Maryland
-

RESEARCH ADVISING

- Ph.D Students (GRADUATED)
 - Dr Azadeh Davoodi, **Assistant Professor (May 2006), University of Wisconsin Madison, Dept of ECE**
 - Dr Vishal Khandelwal, (May 2007), Advanced Technology Group, Synopsys Inc (**offered faculty position at Iowa State University**)
- MS Students (GRADUATED)
 - Ashish Dobhal, Cadence Design Systems
 - Shruti Dhingra Hughes Network Systems
- PhD Students (Current)
 - Yufu Zhang, (expected graduation 2011)

- Bing Shi (expected graduation 2012)
- Dominic Forte (expected graduation 2012)
- Undergraduate student (GRADUATED)
 - Ankan Jain

CURRICULUM DEVELOPMENT

- Developed a new graduate course “ENEE759T Challenges in Automated System Design Methodologies” Dept of ECE, Univ. of Maryland, College Park.
-

TECHNICAL PROGRAM COMMITTEES

- Great Lakes Symposium on VLSI GLSVLSI 2003, 2004, 2005, 2006
- International Conference on Computer Aided Design ICCAD 2004, 2005, 2006
- International Conference on Computer Design, ICCD 2005, 2006, 2007, 2008
- Design Automation Conference DAC 2007, 2008, 2009
- International Symposium on Physical Design ISPD 2008 2009, 2010

EDITORIAL BOARD AND CONFERENCE ORGANIZER

- Associate Editor: IEEE Transactions on VLSI
- Associate Editor: Integration VLSI Journal
- Session Chair: ICCAD 2004, 2005, ICCD 2005, GLSVLSI 2003
- Organizing Committee: Green Communications Workshop 2010

REVIEWER

- Panelist National Science Foundation: Cyber Trust, Computer Systems Research, EECS Division
 - IEEE Transactions on Pattern Analysis and Machine Intelligence
 - IEEE Transactions-Computer-Aided-Design,
 - IEEE Transactions on VLSI,
 - ACM Transactions on Design Automation of Electronic Systems,
 - IEEE Transactions on Computer
 - IEE-Proceedings,
 - International Conference on Computer Aided Design, ICCAD
 - Design Automation Conference, DAC
 - International Symposium on Circuits and Systems ISCAS
 - US Civilian Research Development Fund (CRDF)
-

UNIVERSITY & DEPARTMENT SERVICE

- Facilities and Services Committee, ECE Department, 2004-2006
 - Graduate Studies and Research Committee, ECE Department, 2006-2008
 - Graduate Studies and Research Committee (re-elected) ECE Department, 2008-2010
 - Graduate Studies and Research Committee (re-elected) ECE Department, 2010-2012
 - Department Council, ECE Department 2008-2010
 - Department APT Committee 2010-2012
 - College of Engineering Council: 2010-2012
 - ECE Salary Committee: 2010-2012
 - Institute for Systems Research Salary Committee: 2010-2012
 - Institute for Systems Research Facilities and Services Committee: 2009-2011
-

SOFTWARE AND DEMONSTRATIONS

- Design Automation Conference, University Booth Jun 2000: Demonstrated techniques for circuit performance optimization
 - Design Automation Conference, University Booth Jun 2004: Demonstrated techniques for static power optimization
-
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