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### Publications/Speakerships

- » Pillai, D, D, "A Roadmap for Simulation Modeling Capabilities," keynote speaker at the 2004 Winter Simulation Conference – "Titans of Simulation" plenary session, Washington, DC, Dec 7, 2004.
- » Pettinato, J, Pillai, D, "Technology Decisions to Minimize 450mm wafer size transition," IEEE International Symposium of Semiconductor Manufacturing conference (ISSM), Sept 2004, Tokyo, Japan. Awarded conference best paper/presentation.
- » Pillai, D, Edward, Bass; Dempsey, Jim, Yellig, Ed, "300mm full factory dynamic simulations for 90nm and 65nm IC manufacturing," IEEE Transactions in Semiconductor Manufacturing, Special invited paper, Aug 2004.
- » Pillai, D, "Perspectives and Future of Manufacturing," invited panelist and guest speaker, Leaders for Manufacturing (LFM), Massachusetts Institute of Technology, Cambridge, MA, Nov 19, 2003.
- » Distinguished Speaker in Technology, Inaugural Gwaltney Lecture in Manufacturing Systems, Department of Systems Engineering and Operations Research, Georgia Institute of Technology, Atlanta, GA, 2003, Oct 14, 2003
- » Pillai, D, "Learnings from 300mm Standardization Successes," keynote speaker, First IEEE Workshop on Future of Automated Test Equipment, International Test Conference (ITC), Charlotte, NC, Oct 2, 2003
- » Pillai, D, Edward, Bass; Dempsey, Jim, Yellig, Ed, "300mm full factory dynamic simulations for 90nm and 65nm IC manufacturing," IEEE International Symposium of Semiconductor Manufacturing conference (ISSM). Awarded conference best paper/presentation, Sept 30, 2003, San Jose, CA
- » Subramaniam, B, Golla, C, Pillai, D, Lockwood, C, "300mm Equipment Buffering Strategy to Maximize Fab Productivity," IEEE International Symposium of Semiconductor Manufacturing conference (ISSM) technical poster session, Oct 2, 2003, San Jose, CA
- » Pillai, D, "State of the Art Factory Automation," publication – 2003 Yearbook – McGraw Hill Encyclopedia of Science and Technology, McGraw Hill, Press, NY, 2003
- » Pillai, D, "Metrics and Indicators for Continuous Improvement," keynote speech, Stanford Center of Integrated Facilities Management (SIFE), Stanford University, CA, Sept 2002
- » Distinguished Speaker in Technology, Department of Operations Research, Cornell University, Ithaca, NY, 2002

- » Distinguished Speaker in Technology, College of Engineering, EECS department, University of Southern California, 2002
- » Distinguished Speaker in Technology, Department of Operations Research, University of California, Berkeley, 2002
- » Pillai, D, "Operations Management Challenges in 300mm Semiconductor Manufacturing," keynote speech, 2002 Modeling and Analysis of Semiconductor Manufacturing (MASM), Phoenix, AZ, March 2002.
- » Pillai, D and Bloss, D, "Internet enabled semiconductor manufacturing," IEEE International Symposium of Semiconductor Manufacturing (ISSM) conference and proceedings, San Jose, CA Oct 2001
- » Bloss, D, and Pillai, D, "e-Manufacturing opportunities in semiconductor manufacturing," Semiconductor International magazine feature article, July 2001.
- » Braunbeck, J, and Pillai, D, "Impact of single-wafer Diffusion and Single Wafer Wet Cleans on 200mm factory performance and inventory," IMEC conference paper, Feb 2001
- » Pettinato, J, Pillai, D, and Honma, M, "2000 International Technology Roadmap for Semiconductors — Factory Integration: Potential solutions and technical requirements," International Roadmap Committee symposium, Seoul, Korea, Dec 2000
- » Pillai, D, "e-Manufacturing Roadmap and Vision for Intel," Intel Developer's Forum presentation, San Jose, CA, Aug 2000
- » Bloss, D, Honma, M, Pillai, D, "Factory Integration priorities for high volume 300mm manufacturing," SEMI symposium on 300mm Standards, Billy Graham Center, San Francisco, CA, Jul 2000
- » Pillai, D, "e-Diagnostics — A vision of needs to reduce critical equipment mean time to repair," SEMATECH Technical Advisory Board Factory and Productivity working group invited paper, Austin, TX, Jun 2000
- » Pillai, D, "e-Manufacturing — a framework for cost reduction and improving manufacturing agility," Intel Manufacturing Excellence Conference (IMEC 2000) invited panel discussion and paper, Jun 2000
- » Sohn, B, Pillai, D, Acker, N, "300mm Factory Design for Operational Effectiveness," IEEE/ASMC conference proceedings and technical paper, SEMICON Europa, Munich, Germany, Apr 2000.
- » Pillai, D, Pettinato, J, "Factory Integration technical requirements and potential solutions for the 2000 International Technology Roadmap for Semiconductors," International Roadmap Committee presentation, Brussels, Belgium, Apr 2000
- » Radloff, S, and Pillai, D, "230mm Reticle Carrier standardization Strategy and Priorities — an argument for Reticle Carrier Pods," I300I/Sematech Technical Advisory Board conference on Standards, Los Angeles, CA Mar 2000

- » Foster, Len and Pillai, D, "Wafer Logistics and Automated Material Handling Systems," chapter in the Handbook of Semiconductor Manufacturing Technology, Marcel Dekker Inc, 2000, pp- 1067-1102.
- » Pillai, D, "Data Integration techniques to reduce simulation data collection cycle times by 100X," Intel Modeling Summit invited paper, Chandler, AZ Jan 2000
- » Pillai, D and Abell, T, "Accelerating 300mm conversion using industry Standards," SEMI Conference paper and proceedings, SEMICON Japan, Dec 1999.
- » Pillai, D, and Honma, M, "1999 International Technology Roadmap for Semiconductors – Factory Integration technical requirements and Challenges," International Roadmap Committee symposium, Tokyo, Japan, Dec 1999
- » Bass, E, Quinn, T, Pillai, D, "Integrated modeling of Interbay, Intrabay, Process equipment capacity and Layouts for 300mm," Sematech Technical Advisory Board Modeling workshop invited paper, Austin, TX, Dec 1999
- » Pillai, D, Kryder, K, Charlson, D, Quinn, T, "Integration of 300mm fab layouts and automated material handling systems," International Symposium of Semiconductor Manufacturing (ISSM) conference and proceedings, San Jose, CA Oct 1999
- » Jefferson, T, and Pillai, D, "TPT analysis and modeling of 300mm intrabay transport vehicles," SMOMS conference and proceedings, San Francisco, CA, June 1999
- » Pillai, D, "Integrating OHV and Conveyors transport systems for solving very high throughput Intrabay layouts," ASYST/Intel Technology exchange forum, Mountain View, CA, Apr 1999
- » Pillai, D, "Integrated Factory Design and Operation using modeling and simulation," keynote speaker -IIE Solutions Conference and proceedings, Phoenix, AZ, Apr 1999
- » Yoder, M, Seidel, E, Stewart, A, Radloff, S, and Pillai, D, "Equipment Installation and Alignment Tolerances for 300mm OHV, Loadports, PGVs and Bay walls," SEMI/Sematech Technical Advisory Board's 300mm standards symposium invited paper, Austin, TX, Mar 1999
- » Sherwood, E, Bass, E, Hope, D, and Pillai, D, "Integrated Mini-environment design guidelines and industry best practice document," Sematech/I300I mini-environment workshop invited paper, Austin, TX, Jan 1999
- » Abell, T, Krick, D, Bost, M, Radloff, S, and Pillai, D, "A mechanical interface lockout standard for preventing Copper contamination for 300mm wafer carriers," SEMI/Sematech Conference paper and proceedings, SEMICON West, San Francisco, CA, July 1998
- » Pillai, D, "300mm Factory Automation and Facilities Systems integration," ASYST Manufacturing Connectivity Symposium keynote paper/presentation, Mountain View, CA, Jun 1998

- » Abell, T, Pillai, D, Radloff, S, Souza, J, Seligson, D, "Automation and equipment interface standards and expectations for 300mm production equipment," SEMI standards symposium, SEMICON West, San Francisco, CA, July 1998.
- » Bass, E and Pillai, D, "Hardware and Software priorities and must-have standards for cost effective 300mm automation and manufacturing," SEMI Conference paper and proceedings, SEMICON Kansai, May 1998
- » Seligson, D, and Pillai, D, "300mm Transition — Productivity drivers to achieve > 30% cost reduction," SEMI Conference paper and proceedings, SEMICON Kansai, May 1998
- » Pillai, D, and Radloff, S, "300mm Metrology Equipment Configuration guidelines for sitting metrology operations," SEMATCH/SELETE equipment symposium invited paper, Austin, TX, Apr 1998
- » Pillai, D, Bass, E, and Radloff, S, "Interoperability and Mix and Match definitions for eliminating 300mm start-up risk," U.S Equipment Supplier workshop — SEMI invited paper, San Jose CA, Apr 1998
- » Gargini, P and Pillai, D, "Factory considerations for high-volume 300mm manufacturing," SEMI Conference paper and proceedings, SEMICON Japan, Dec 1997
- » Pillai, D, "Productivity improvements by eliminating manual wafer ID reading in 300mm HVM by adopting T7 wafer marking," Intel Manufacturing Operations Strategic capability segment paper, June 1997
- » Pillai, D, Abell, T, and Rangaswami, M, "300mm Production and Metrology equipment Buffering requirements," I300I/SEMATECH invited paper presentation, I300I PAG meeting, June 1997
- » Pillai, D, and Subramanian, B, "300mm Automation — Interoperability requirements — Current Status and Vision," Intel Supplier day presentation and demo, Apr 1997
- » Hope, D, and Pillai, D, "Wafer Environment requirements for 300mm carriers and pods," IEC Minienvironment symposium — invited paper, Austin, TX, Mar 1997
- » Pillai, D, and Subramanian, B, "300mm Intrabay Automation Strategy — Options to consider," Sematech/SEMI standards meeting, invited paper, San Diego, CA, Mar 1997
- » Pillai, D, "Preliminary 300mm Automated Material Handling system specification," 1996 Daifuku Technology Symposium invited paper, Shiga, Japan, Nov 1996
- » Pillai, D, "Solving real world problems in IC manufacturing by using dynamic simulation," invited paper and seminar at Purdue University Graduate School of Industrial engineering, Oct 1996
- » Pillai, D, and Srinivasan, S, "Material Handling Automation — Industry trends, Vision and Future plans," International Symposium of Semiconductor Manufacturing (ISSM) conference and proceedings, Tokyo, Japan Oct 1996

- » Pillai, D, "Design of Robotic Transport and Storage systems using dynamic factory models," invited paper and seminar at Tauber Manufacturing Institute, Univ of Michigan, Ann Arbor, Jul 1996
- » Prasad, G and Pillai, D, "Integration of Information bus and web technology for factory status monitor boards," Intel Manufacturing for Excellence conference (IMEC) paper and demo session, San Diego, Jun 1996
- » Pillai, D, "Potential design options for Intel's next generation 300mm high volume factory — Concept B," Facilities Strategic Capability Segment invited paper, Santa Clara, CA, May 1996
- » Pillai, D, "Lack of loadport and interface standardization on 200mm — an analysis of its impact on productivity and cost," invited paper at the I300I/Sematech workshop in 300mm standards, Austin, TX, Apr 1996.
- » Pillai, D, "Why International participation and standardization is essential for 300mm cost reduction," J300/I300I/SELETE symposium on Global standardization, Tokyo, Japan Apr 1996
- » Kiser, K, Subramanian, B and Pillai, D, "Exploring alternate storage and transport systems via Zero Footprint Storage (ZFS) to improve 300mm storage efficiency," Intel Supplier Day conference paper and demo, San Francisco, CA, Apr 1996
- » Pillai, D, "300mm — Industry directions, current priorities and what Intel is doing about it," Ireland fab operations Technology Review Forum, invited paper, Leixlip, Ireland, Feb 1996
- » Pillai, D, "Why the 25 wafer carrier is the cost-effective solution for 300mm high volume manufacturing," white paper at the SEMI/Sematech conference on 300mm standardization, San Francisco, CA, Apr 1995
- » Pillai, D, "Application of simulation technology for designing factory automation systems," Distinguished lectures in technology series, Carnegie Mellon University school of Computer Science, PA, May 1995
- » Nadoli, G, and Pillai, D, "Simulation of AMHS designs for IC manufacturing," WSC Winter Simulation Conference paper and proceedings, Washington, DC, Dec 1994
- » Pillai, D, "Designing factory-wide Automated Material Handling Systems for large scale wafer fabrication automation," SME Conference paper and proceedings, Phoenix, AZ, Nov 1989
- » Pillai, D and Calame, P, "Systems Integration and Automation for sub-micron Wafer fabrication," SME Conference paper and proceedings, Orlando, FL, Mar 1989
- » Kryder, K, and Pillai, D, "Designing Automation Systems for minimizing risk and meeting customer expectations," Datamation and Modern Material Handling Institute, feature article, Nov 1988
- » Pillai, D and Calame, P, "Integrated Wafer fab Automation," Datamation and Modern Material Handling Institute, featured article, Nov 1988

- » Pillai, D, "Developing a Decision Support System for Optimizing Automated Wafer fabrication," IEEE CHMT Conference and proceedings on Design for Manufacturability, Orlando, FL, Oct 1988
- » Pillai, D, "Station and Cell Controllers — pace setters of the automated factory," IIE CACTIE quarterly publication feature article, Central Arizona chapter, Oct 1987
- » Pillai, D, "Simulation — a tactical and strategic decision making tool for IC manufacturing," IIE CACTIE publication feature article, Central Arizona chapter, Jan 1987
- » Pillai, D, "A dynamic simulation model for VLSI Lithography manufacturing," Journal of Electrochemical Society conference and proceedings, San Diego, CA 1986