# Kurt R. Rohloff

*Curriculum Vitae* rohloff@njit.edu New Jersey Institute of Technology Newark NJ, 07052

## **OVERVIEW**

Areas of R&D Interest: Secure communication and computing, cyber-physical systems, practical encryption, homorphic encryption, system verification and certification, scalable computational resource sharing, tactical information management, computational modeling.

### WORK EXPERIENCE

Associate Professor of Computer Science and Director of NJIT CryptoLab, New Jersey Institute of Technology, Newark, NJ (Sept. 2014 - present)

Faculty at a major public research university. Research activities focusing on secure computing research, overseeing theses of graduate students and teaching courses in cybersecurity.

Responsible of the management of a research lab focused on practical encryption and cyber-security, arranging for external research funding and the recruiting of technical staff. Staff includes professional (non-student) scientists and programmers, and affiliated graduate students.

#### Senior Scientist, Raytheon BBN Technologies, Cambridge, MA (Sept. 2005 - present)

PI for multiple federally funded research and development projects related to large-scale computing, secure computing and tactical information management. I lead teams to develop technologies to solve some of the hardest R&D challenges facing the DoD. Recent achievements include:

- PROCEED: Principal Investigator for a multi-year, multi-million dollar DARPAfunded R&D effort to reduce run-time of fully homomorphic encryption implementations by many orders of magnitude. Formed and managed diverse, geographically distributed team with multiple technical leads. Managed business capture, budgeting and scheduling of this activity which is resulting in a new type of encryption for secure computing on untrusted hardware.
- SCIMITAR: Principal Investigator for an AFRL-funded project to research and develop highly scalable information management technologies to revolutionize information brokering with cloud-based data streaming technologies. Led the business development and proposal writing activity for this effort. Oversees all planning, budgeting and customer interactions for this effort.
- SHARD: Chief architect and originator of an innovative cloud-based, highly scalable graph data storage and information retrieval technology. Utilized this SHARD technology to support highly scalable querying over graph data. The SHARD triple-store was evaluated to respond an order of magnitude faster than best-of-breed commercial graph-store technologies.

**Postdoctoral Research Associate:** Coordinated Science Laboratory, The University of Illinois at Urbana-Champaign (July 2004 – Aug. 2005).

Supervised by Prof. Tamer Başar, member of the US National Academy of Engineering and European Academy of Sciences

Researched and developed innovative stochastic modeling techniques for the automated detection of computer worm epidemics based on real-time data analysis of information network measurements during Internet worm propagation.

**Visiting Researcher:** CWI (Center for Mathematics and Computation), Amsterdam, The Netherlands (Summer 2003).

Supervised by Prof. Dr. Jan H. van Schuppen.

Researched and developed risk models and algorithms to solve real-time optimal sensor selection problems for supervisory control in risk-averse distributed systems.

Visiting Researcher, MIT Lincoln Laboratory, Lexington, MA (Summers of 1999, 2000)

Developed control and simulation models of ICBM flights for the THAAD missile defense system program. Researched and developed machine-learning pattern recognition techniques to for target identification and tracking in the NMD missile defense system program.

# **EDUCATION**

#### • **Ph.D. in Electrical Engineering: Systems** The University of Michigan, Ann Arbor, MI (4/04)

- Thesis: Computations on Distributed Discrete-Event Systems
- Advisor: Prof. Stéphane Lafortune
- Honorable Mention, University of Michigan Distinguished Dissertation Award (University-wide award, one nomination per department.)
- Thesis work resulted in new approaches to the automated analysis, diagnosis and control of distributed systems.
- **M.S. of Electrical Engineering: Systems** The University of Michigan, Ann Arbor, MI (4/01)
  - Major Area: Control
  - Minor Area: Computers: Intelligent Systems
- **B. of Electrical Engineering** Georgia Institute of Technology (6/99)
  - GPA: 3.83/4.00
  - o Graduated with Highest Honors

# CONTRACT AWARDS

- PROgramming Computation on EncryptEd Data (PROCEED), DARPA TCTO/I2O. AFRL contract FA8750-11-C-009, \$3M.
- Scalable Information Management Technology And Research (SCIMITAR). AFRL contract award FA8750-12-C-0083, \$750K.
- META, DARPA STO. Contract award HR0011-10-C-0108, \$2M.
- International Crisis Early Warning System (ICEWS), DAPRA IPTO. AFRL/HECS contract FA8650-07-C-774, \$6M.

Additional proprietary contracts awards were made but cannot be listed without prior approval from the associated contracting agencies. Except for the awards which cannot be listed without prior approval, the listed contract awards are listed only if K. Rohloff had a substantial role in both business development and contract execution. Additional awards were made which fit only one but not both of these criteria.

# ACADEMIC AWARDS AND HONORS

- BBN Business Development Awards, every year 2008-present.
- BBN Publication Awards, 2006, 2008.
- Honorable Mention for the University of Michigan Distinguished Dissertation Award, 2004 (University-wide award, one nomination per academic department.)
- GAANN (Graduate Assistance in Areas of National Need) Fellowship, 2001.
- Graduated with Highest Honors, Georgia Tech, Spring 1999.
- Georgia Tech ECE Sophomore of the Year, 1997.
- Dean's List or Faculty Honors every academic session at Georgia Tech 1995-1999.

# STUDENT MENTORING

- Mayur Agarkar, MS Thesis, Expected Spring 2015.
- Suchanda Mukherjee, MS Thesis, Expected Spring 2015.
- Liye Fu, Mount Holyoke College, "Optimized FHE Circuit Design." Summer 2013
- Pam Bilo, Indiana University, "Fully Homomorphic Encryption Implementation." Summer 2012
- Yarom Gabay, Boston University, "Stochastic Computation Resource Allocation." Summer 2007

# PROFESSIONAL AFFILIATIONS AND SERVICE

# Membership:

- IEEE (1997-present)
- AAAI (2009-2010)

# **Professional Service:**

- Organizer of BBN Distributed Systems Seminar Series (2007-present)
- Member of International Federation of Automatic Control (IFAC) Technical Committee on Discrete Event and Hybrid Systems (2005-present)
- Member of IEEE IES Technical Committee on Factory Automation (2014-present)
- Reviewer for multiple international conferences and journals.

# **Conference Service:**

- Co-Chair:
  - 3rd Workshop on Encrypted Computing and Applied Homomorphic Cryptography (WAHC), 2015
  - Efficient and Scalable Cybersecurity Using Algorithms Protected by Electricity (ESCAPE), 2015
- Research-Industry Chair:
  - International Conference on Advanced Engineering Computing and Applications in Sciences (ADVCOMP), 2009
- Track Chair or Co-Chair:
  - o IFAC Symposium, 2005
  - Conference on Decision and Control (CDC) 2005
  - Conference on Automation Science and Engineering (CASE), 2009
- Program Committee Membership:
  - Workshop on Applied Homomorphic Computing 2013-2015
  - American Control Conference (ACC) 2008, 2013, 2014
  - International Conference on Industrial Automation, Information and Communications Technology (IAICT) 2014
  - Engineering Technologies & Factory Automation (ETFA) 2013
  - Workshop on Discrete-Event Systems (WODES) 2006-2008
  - International Conference on Computer Communications and Networks (ICCCN) 2007-2008
  - Conference on Automation Science and Engineering (CASE) 2008-2009

# MEDIA EXPOSURE

- **Dr. Dobb's**. "Movement on the Big Data Front", Apr. 8, 2010.
- **Cloudera Blog**, "How Raytheon BBN Technologies Researchers are Using Hadoop to Build a Scalable, Distributed Triple Store", Mar. 22, 2010
- MIT Technology Review, "A Plan to Catch the Conficker Worm", Mar. 30, 2009
- MIT Technology Review, "Containing Internet Worms", Jun. 12, 2008

# **OTHER INFORMATION**

- Language Ability: Native speaker of English, basic Turkish, Spanish.
- **Extra-curricular Activities:** Master's Swim Club, Long-Distance Hiking, Hobby Farming, Electronic Design, Automobile Repair and Restoration.
- Citizenship: United States of America
- Security Clearance: Inactive Top Secret with a Current Investigation until 2019.

## PATENTS

- P1. Kurt Rohloff and David Bruce Cousins. "SYSTEM AND METHOD FOR ENCODING ENCRYPTED DATA FOR FURTHER PROCESSING." Patent pending. Filed 2014.
- P2. Kurt Rohloff and David Bruce Cousins. "SYSTEM AND METHOD TO MERGE ENCRYPTED SIGNALS IN DISTRIBUTED COMMUNICATION SYSTEM." Patent pending. Filed 2014.
- P3. Kurt Rohloff and David Bruce Cousins. "SYSTEM AND METHOD TO MERGE ENCRYPTED SIGNALS IN DISTRIBUTED COMMUNICATION SYSTEM." Patent pending. Filed 2014.
- P4. Kurt Rohloff and David Bruce Cousins. "SYSTEM AND METHOD FOR MIXING VOIP STREAMING DATA FOR ENCRYPTED PROCESSING." Patent pending. Filed 2014.
- P5. Kurt Rohloff and David Bruce Cousins. "SYSTEM AND METHOD FOR MERGING ENCRYPTION DATA USING CIRCULAR ENCRYPTION KEY SWITCHING." Patent pending. Filed 2014.
- P6. Kurt Rohloff and David Bruce Cousins. "SYSTEM AND METHOD FOR OPERATING ON STREAMING ENCRYPTED DATA." Patent pending. Filed 2014.
- P7. Kurt Rohloff and David Bruce Cousins. "SYSTEM AND METHOD FOR MERGING ENCRYPTION DATA WITHOUT SHARING A PRIVATE KEY." Patent pending. Filed 2014.
- P8. Kurt Rohloff, David Bruce Cousins and Richard Schantz. "METHOD FOR SECURE SYMBOL COMPARISON." Patent pending. Filed 2013.
- P9. Kurt Rohloff, David Bruce Cousins and Richard Schantz. "METHOD FOR SECURE SUBSTRING SEARCH." Patent pending. Filed 2013.
- P10. Kurt Rohloff, Matthew Gillen and Joseph Loyall. "METHOD FOR SECURE SYMBOL COMPARISON." Patent pending. Filed 2012.

## PUBLICATIONS

#### Journals

- J1. Kurt Rohloff and Tamer Başar. "Deterministic and Stochastic Models for the Detection of Random Constant Scanning Worms." ACM TOMACS (Transactions on Modeling and Computer Science) Special Issue on Simulation, Modeling and Security. Volume 18, Number 2, April 2008.
- J2. Kurt Rohloff, Samir Khuller and Guy Kortsarz. Approximating Optimal Sensor Selections and Connections to Colored st-cut Problems, Discrete-Event Dynamic Systems: Theory and Applications. Volume 16, Number 1, Jan. 2006.
- J3. Kurt Rohloff and Stéphane Lafortune. The Verification and Control of Interacting Similar Discrete-Event Systems, SIAM Journal on Control and Optimization. Volume 45, Number 2, Jan. 2006.
- J4. Kurt Rohloff, Joseph Loyall, Richard Schantz. Quality Measures for Embedded Systems and Their Application to Control and Certification, ACM SIGBED Review, Special Issues on Workshop on Innovative Techniques for Certification of Embedded Systems. Volume 3, Number 4, October 2006.
- J5. Kurt Rohloff, Stéphane Lafortune. PSPACE-completeness of Automata Intersection with Applications to Supervisory Control of Discrete-Event Systems. Discrete-Event Dynamic Systems, 15:2 June, 2005.
- J6. Kurt Rohloff, Tae-Sic Yoo, Stéphane Lafortune. Deciding Coobservability is PSPACE-complete. Transactions of Automatic Control, 48:11. November, 2003
- J7. Kurt Rohloff, Stéphane Lafortune. On the Synthesis of Safe Control Policies in Decentralized Control of Discrete Event Systems. Transactions of Automatic Control. 48:6, pg.1064-1068. June, 2003

### **Conferences and Workshops**

- C1. Kurt Rohloff, David Bruce Cousins. "A Scalable Implementation of Fully Homomorphic Encryption Built on NTRU." 2nd Workshop on Applied Homomorphic Cryptography and Encrypted Computing (WAHC). Mar. 7, 2014.
- C2. Kurt Rohloff, Jeffrey Cleveland, Kyle Usbeck "Scalable Streaming Graph Data Processing: A Position Paper on Design Goals and a Possible Approach." Big Data Analytics: Challenges and Opportunities (BDAC-13). In Cooperation with ACM/IEEE SC13. Nov. 17, 2013.
- C3. Kurt Rohloff, Jeffrey Cleveland, Joseph Loyall, Timothy Blocher "SCIMITAR: Scalable Stream-Processing for Sensor Information Brokering." Military Communications Conference (MILCOM), Nov. 18-20, 2013.

- C4. Kurt Rohloff, Jeffrey Cleveland, Kyle Usbeck "The AQUEDUCT Streaming Linked Data Processing Capability in a Scalable Cloud Computing Framework." Semantic Technology & Business Conference, Jun. 2-5, 2013.
- C5. Kurt Rohloff, Kyle Usbeck, Joe Loyall "GAMETE: General Adaptable Metric Execution Tool and Environment." 3rd International Workshop on Model-driven Approaches for Simulation Engineering (Mod4Sim), Apr. 7-10, 2013.
- C6. Kurt Rohloff "Bounded Sensor Failure Tolerant Supervisory Control." 11th International Workshop on Discrete-Event Systems (WODES), Oct. 3-5, 2012.
- C7. David Bruce Cousins, Kurt Rohloff, Chris Peikert, Rick Schantz. "An update on Scalable Implementation of Primitives for Homomorphic EncRyption - FPGA implementation using Simulink." Sixteenth Annual Workshop on High Performance Embedded Computing (HPEC), Sept. 10, 2012.
- C8. Ipek Kaynar Rohloff, Kurt Rohloff. "Modeling Spatial Activity Distributions in Complex Urban Conditions: The Markov Chain Model for Weighting Spaces with Attractors." 100th ACSA Annual Meeting; Massachusetts Institute of Technology, Cambridge, March 1-4, 2012.
- C9. David Bruce Cousins, Kurt Rohloff, Chris Peikert, Rick Schantz. "SIPHER: Scalable Implementation of Primitives for Homomorphic EncRyption - FPGA implementation using Simulink." Fifteenth Annual Workshop on High Performance Embedded Computing (HPEC), Sept. 21, 2011.
- C10. Kurt Rohloff, Joseph Loyall. "An Ontology for Resource Sharing." Fifth IEEE International Conference on Semantic Computing (ICSC) Workshop on Ontologies for Systems Integration and Standards, Sept. 18, 2011.
- C11. Kurt Rohloff, Richard Schantz. "Clause-Iteration with Map-Reduce to Scalably Query Data Graphs in the SHARD Graph-Store." DIDC 2011: Fourth International Workshop on Data Intensive Distributed Computing. June 8, 2011
- C12. Joseph Loyall, Kurt Rohloff, Partha Pal, Michael Atighetchi. "A Survey of Security Concepts for Common Operating Environments." WORNUS 2011: 2nd IEEE International Workshop on Object/component/service-oriented Real-time Networked Ultra-dependable Systems. March 28-31 2011.
- C13. Kurt Rohloff. "Cloud computing for Scalability: The SHARD Triple-Store." Cambridge SemWeb MeetUp, January 9, 2011.
- C14. Kurt Rohloff. "Cloud computing for Scalability: The SHARD Triple-Store." SemWeb MeetUp Webcast, January 9, 2011.
- C15. Kurt Rohloff, Rick Schantz. "High-Performance, Massively Scalable Distributed Systems using the MapReduce Software Framework: The SHARD Triple-Store." International Workshop on Programming Support Innovations for Emerging Distributed Applications (PSI EtA), 2010.

- C16. Kurt Rohloff. "SHARD: Storing and Querying Large-Scale SemWeb Data." HadoopWorld, 2010.
- C17. Kurt Rohloff. "Cloud- and Cluster-Computing Technologies for the Semantic Web." Semantic Technology Conference, 2010.
- C18. Partha Pal, Kurt Rohloff, Michael Atighetchi, and Rick Schantz. "Managed Mission Assurance: Concept, Methodology and Runtime Support." Workshop on Mission Assurance: Tools, Techniques, and Methodologies at the 2nd IEEE International Conference on Privacy, Security, Risk, and Trust. August 20-22 2010, Minneapolis, Minnesota, USA.
- C19. Partha Pal, Rick Schantz, Michael Atighetchi, Kurt Rohloff, Nathan Dautenhahn and William Sanders. "Fighting Through Cyber Attacks: An Informed Perspective Toward the Future." Workshop on Survivability in Cyberspace, Part of CPS Week 2010, April 2010.
- C20. Kurt Rohloff, Partha Pal, Michael Atighetchi, Richard Schantz, Kishor Trivedi and Christos Cassandras. "Approaches to Modeling and Simulation for Dynamic, Distributed Cyber-Physical Systems." Workshop on Grand Challenges in Modeling, Simulation, and Analysis for Homeland Security (MSAHS-2010), March 2010.
- C21. Kurt Rohloff, Robert Battle, Jim Chatigny, Rick Schantz and Victor Asal. "A Trend Pattern Approach to Forecasting Socio-Political Violence." Third International Conference on Computational Cultural Dynamics, Dec. 2009.
- C22. Kurt Rohloff. "Automated Discovery and Modeling Of Sequential Patterns Preceding Events of Interest." ModSim World, Oct. 2009.
- C23. Kurt Rohloff and Paul Rubel. "Discovering Automated Sequential Patterns the Precede Outbreaks of Socio-Political Violence." HSCB Focus 2010, August, 2009.
- C24. Partha Pal, Rick Schantz, Kurt Rohloff and Joseph Loyall. Cyber-physical Systems Security - Challenges and Research Ideas. Workshop on Future Directions in Cyberphysical Systems Security, July 2009.
- C25. Kurt Rohloff and Wayne Thornton. "A Knowledge Environment for Social Science Exploration." Human Behavior-Computational Intelligence Modeling Conference, June 2009.
- C26. Rick Schantz, Jake Beal, Joe Loyall, Partha Pal, Kurt Rohloff and Azer Bestavros. "Research Challenges in Information Systems for the Next Generation Electric Grid." National Workshop on New Research Directions for Future Cyber-Physical Energy Systems, June 2009.
- C27. Kurt Rohloff and Victor Asal. "Computational Methods to Discover Sets of Patterns of Behaviors that Precede Political Events of Interest." AAAI Spring Symposium on Technosocial Predictive Analytics, March 2009.

- C28. Joseph Loyall, Partha Pal, Kurt Rohloff and Matthew Gillen. "Issues in Context-Aware and Adaptive Middleware for Wireless, Mobile Networked Systems." Workshop on Research Directions in Situational-aware Self-managed Proactive Computing in Wireless Adhoc Networks, March 2009
- C29. Robert Battle, Douglas Reid, Kurt Rohloff. "CWEST: Disruptive Integration of Computation Technology for Data Analysis and Visualization." Visualizing the Past: Tools and Techniques for Understanding Historical Processes, February 2009.
- C30. Kurt Rohloff and Victor Asal. "The Identification of Sequential Patterns Preceding the Occurrence of Political Events of Interest." Second International Conference on Computational Cultural Dynamics, September 2008.
- C31. Kurt Rohloff. "Directions for Cost-Effective Certification of High-Assurance Cyber Physical Systems." Fourth Annual Carnegie Mellon Conference on the Electricity Industry, March 2008.
- C32. Kurt Rohloff, Mike Dean, Ian Emmons, Dorene Ryder, John Sumner "An Evaluation of Triple-Store Technologies for Large Data Stores" 3rd International Workshop On Scalable Semantic Web Knowledge Base Systems (SSWS '07), Vilamoura, Portugal, Nov 27, 2007
- C33. Matthew Gillen, Kurt Rohloff, Prakash Manghwani, and Richard Schantz. "Scalable, Adaptive, Time-Bounded Node Failure Detection "10th IEEE High Assurance Systems Engineering (HASE) Symposium, Dallas, Texas, November 14 - 16, 2007
- C34. Kurt Rohloff, Joseph Loyall, Partha Pal, and Richard Schantz. "High-Assurance Distributed, Adaptive Software for Dynamic Systems" 10th IEEE High Assurance Systems Engineering (HASE) Symposium Dallas, Texas November 14 16, 2007.
- C35. Kurt Rohloff, Richard Schantz and Yarom Gabay. "High-Level Dynamic Resource Management for Distributed, Real-Time Embedded Systems." 5th Symposium on Design, Analysis and Simulation of Distributed Systems (DASD), San Diego, CA, 2007.
- C36. Kurt Rohloff, Yarom Gabay, Jianming Ye and Richard Schantz. "Scalable, Distributed, Dynamic Resource Management for the ARMS Distributed Real-Time Embedded System." International Workshop on Parallel and Distributed Real-Time Systems (WPDRTS) Long Beach, CA, 2007.
- C37. Kurt Rohloff, Richard Schantz, Partha Pal and Joseph Loyall. "Software Certification for Distributed, Adaptable Medical Systems: Position Paper on Challenges and Paths Forward." Joint Workshop On High Confidence Medical Devices, Software, and Systems (HCMDSS) and Medical Device Plug-and-Play (MD PnP) Interoperability,June 25-27, 2007, Boston, MA.
- C38. Kurt Rohloff, Richard Schantz and Joseph Loyall. Dynamic, High Confidence Certifiable Embedded Software: Position Paper, 2006 National Meeting, Beyond

SCADA: Networked Embedded Control for Cyber Physical Systems, November 8 & 9, 2006, Pittsburgh, Pennsylvania.

- C39. Kurt Rohloff, Jianming Ye, Joseph Loyall, Richard Schantz. A Hierarchical Control System for Dynamic Resource Management, 2006 IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS 2006), Work in Progress Symposium. April 7, 2006, San Jose, CA.
- C40. Kurt Rohloff, Joseph Loyall, Richard Schantz. Quality Measures for Embedded Systems and Their Application to Control and Certification, 2006 IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS 2006), Workshop on Innovative Techniques for Certification of Embedded Systems. April 4, 2006, San Jose, CA.
- C41. Kurt Rohloff "Sensor Failure Tolerant Supervisory Control" 44th IEEE Conference on Decision and Control, 2005 and 2005 European Control Conference. CDC-ECC '05. Dec. 12-15, 2005.
- C42. Kurt Rohloff and Tamer Başar. The detection of RCS worm epidemics. In Proceedings of the 2005 ACM Workshop on Rapid Malcode (WORM), November 11, 2005.
- C43. Kurt Rohloff and Tamer Başar. "Stochastic behavior of random constant scanning worms," 14th International Conference on Computer Communications and Networks (ICCCN) Oct. 17-19, 2005.
- C44. Kurt Rohloff, The Diagnosis of Failures via the Combination of Distributed Observations, Mediterranean Conference on Decision and Control, 2005.
- C45. Kurt Rohloff, Jan H. van Schuppen. Approximating Minimal Communicated Event Sets for Decentralized Supervisory Control, IFAC World Congress, 2005.
- C46. Kurt Rohloff, Tansu Alpcan, Tamer Başar. A Discrete-Event Systems Model for Congestion Control, IFAC World Congress, 2005.
- C47. Kurt Rohloff. Information Acquisition, Approximation Algorithms and Supervisory Control. Workshop on Control of Hybrid and Discrete Event Systems (CHyDES'05), a satellite event of the 26th International Conference On Application and Theory of Petri Nets and Other Models of Concurrency (ATPN 2005). Miami Florida, June 21, 2005.
- C48. Kurt Rohloff, Samir Khuller, Guy Kortsatz. Approximating Optimal Sensor Selections for Supervisory Control, Workshop on Discrete-Event Systems, 2004. (Invited to submit a journal version of this paper to a special edition of the journal Discrete Event Dynamic Systems.)
- C49. Kurt Rohloff, Stéphane Lafortune. Symmetry Reductions for a Class of Modular Discrete-Event Systems, Conf. on Decision and Control, 2004.

- C50. Kurt Rohloff, Stéphane Lafortune. The Control and Verification of Similar Agents Operating in a Broadcast Network, Conf. on Decision and Control, 2003.
- C51. Kurt Rohloff, Stéphane Lafortune. Supervisor Existence for Modular Discrete-Event Systems, Proc. of the 2nd IFAC Conf. on Control Systems Design, 2003.
- C52. Kurt Rohloff, Stéphane Lafortune. Recent Results on Computational Issues in Supervisory Control, Proc. of the ATPN-Workshop Discrete Event Systems Control, 2003.
- C53. Kurt Rohloff, Stéphane Lafortune. On the Computational Complexity of the Verification of Modular Discrete-Event Systems, Conf. on Decision and Control, 2002.

### **Book Chapters**

B1. Stéphane Lafortune, Kurt Rohloff, Tae-Sic Yoo. Recent Advances on the Control of Partially-Observed Discrete-Event Systems. In Synthesis and Control of Discrete Event Systems. Benoît Caillaud, Philippe Darondeau, Luciano Lavagno and Xiaolan Xie, eds.,

### **Technical Reports**

- T1. Kurt Rohloff, Stéphane Lafortune. Advances in State Estimation and Controller Synthesis for General Decentralized Control of Discrete Event Systems, University of Michigan EECS Technical Report CGR-01-11
- T2. Kurt Rohloff, Stéphane Lafortune. Deciding Coobservability is PSPACE-complete, University of Michigan EECS Technical Report CGR-03-06
- T3. Kurt Rohloff, Stéphane Lafortune. Space Efficient Methods for Testing Reachability with Applications to Coobservability and Decentralized Control, University of Michigan EECS Technical Report CGR-03-08
- T4. Kurt Rohloff, Stéphane Lafortune. Symmetry Reductions for a Class of Distributed Discrete-Event Systems, University of Michigan EECS Technical Report CGR-04-02
- T5. Kurt Rohloff, Jan H. van Schuppen. Approximating the Minimal-Cost Sensor-Selection for Discrete-Event Systems. CWI Report MAS-R0404, CWI, Amsterdam, The Netherlands, December 2004.