

## 1. Personal Information

### A. Positions

#### Academic & Administrative:

Rank: Professor  
Academic Units: College of Information Science and Technology (51%)  
College of Engineering (49%)  
Departments: Department of Computer Science (49%)  
Department of Electrical and Computer Engineering (0%, since 2005)  
Department of Mechanical Engineering and Mechanics (0%, since 2002)  
Laboratories: Director, Geometric and Intelligent Computing Laboratory (GICL)  
Member, Computer Aided Tissue Engineering Laboratory

#### Government:

Scientific Adviser, US Department of Energy, National Nuclear Security Administration, Office of the Nuclear Weapons Stockpile, Defense Programs, NA-122.1

#### Industry:

Drakontas, LLC: Co-Founder and Senior Scientific Adviser

#### Previous Positions at Drexel:

Executive Director (2008-2010), AJ Drexel Institute for Applied Communication and Information Networking (ACIN)  
Academic Council, Lawrence A. Baiada Center for Entrepreneurship in Technology  
Associate Technical Director (2003-2008), Applied Communication and Information Networking (ACIN) Program  
Department of Mathematics and Computer Science (1997-2001), College of Arts and Sciences

### B. Addresses

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URLs: <http://www.regli.net>  
<http://www.cs.drexel.edu/~regli>  
<http://www.regli.com>  
<http://www.designrepository.org>

## C. Education

Degree	Date	School	Major
Ph.D.	1995 December 22	The University of Maryland at College Park	Computer Science
M.S.	1994 August 27	The University of Maryland at College Park	Computer Science
B.S.	1989 May 20	Saint Joseph's University	Mathematics and Computer Science Dual Major, <i>Cum Laude</i>

## D. Employment Background

Date	Position	Institution
07/12–present	Associate Dean for Research	The iSchool at Drexel University
09/11–present	Associate Dean, Contract Research	The iSchool at Drexel University College of Information Science and Technology
12/10–present	Scientific Adviser	United States Department of Energy National Nuclear Security Administration, Office of Nuclear Stockpile, Defense Pro
09/07–present	Professor	Drexel University
08/03–present	Founder and Chief Science Adviser	Drakontas
10/11	Fulbright Specialist Fellow & Lecturer	Czech Technical University, Prague, Czech Republic
06/08–08/10	Executive Director	Drexel University AJ Drexel Applied Communications and Information Networking Institute
08/03–05/08	Associate Technical Director	Project ACIN
09/03–05/05	Visiting Researcher	Advanced Technology Labs Lockheed Martin Corporation Cherry Hill, New Jersey
09/01–08/07	Associate Professor (Awarded early Tenure in 2001)	Drexel University
06/99–09/99	Visiting Researcher	AT&T Labs Internet Platform Technology Organization San Jose, California
07/97–08/01	Assistant Professor	Drexel University
01/97–09/97	Visiting Research Engineer (equivalent to Assistant Professor)	Carnegie Mellon University Institute for Complex Engineered Systems Carnegie Institute of Technology School of Computer Science
01/96–01/97	Post-Doctoral Research Associate	National Institute of Standards and Technology (NIST)
	National Research Council	United States Department of Commerce
05/92–12/95	Computer Scientist	National Institute of Standards and Technology (NIST) United States Department of Commerce
01/90–12/95	Research Assistant	The University of Maryland at College Park Institute for Systems Research Department of Computer Science
08/90–05/92	Adjunct Faculty	The University of Maryland, University College
08/89–12/89	Teaching Assistant	The University of Maryland at College Park
01/87–08/88	Research Fellowship	Saint Joseph's University Center for Machine Learning
05/88–08/88	Actuarial Internship	Prudential Insurance Company of North America
05/86–01/88	Actuarial Internship	CIGNA

## E. Professional Highlights

### **Entrepreneurship: Drakontas (2003-).**

Regli is a founder of and Chief Scientific Adviser for Drakontas of Camden, N.J. Drakontas has licensed and commercialized technologies from Drexel University for situation awareness, communications and Network-Centric operations for first responders, public protectors and emergency management personnel. Drakontas currently employs

18 full-time people and has annual revenues in excess of \$4M/year. Current projects at Drakontas are supported by the US Department of Transportation, Department of Justice and Department of Defense. From 2006-2010 Drakontas managed the Communications Technologies Center of Excellence for the National Institute of Justice—providing a means for testing, evaluating and demonstrating communications tools and technologies; establishing and managing a law enforcement wireless pilot projects; and overseeing Communications Technology Working Groups specializing in communications for law enforcement, when needed.

**Research & Service: Product Realization Digital Enterprise (PRIDE) (2010-).**

Serves as special scientific adviser to the federal program officers at the National Nuclear Security Administration (NA-122), Office of the Nuclear Stockpile, in the areas of digital preservation, manufacturing integration, computer-aided design and data modeling. The PRIDE program office, part of NNSA Defense Programs (~\$600M/year), oversees a budget approximately \$35M/year that supports the information systems for the design, manufacturing, logistics and supply chain management across the Nuclear Weapons Complex. As part of these duties, Regli was involved in planning, budget negotiations and program reviews for the Design Agencies (Los Alamos, Livermore, Sandia) and Production Agencies (Y-12, Pantex, KCP, SRS), technical specification new program elements, and independent assessment of the performance and effectiveness of these programs. Technical contributions include metadata standards for data ingest from “at risk” media (i.e., paper records, microfilm, radiographs, magnetic tape), information sanitization and release procedures for CAD data types, and the development of new process that improved overall complex operations in the area of digital preservation.

**Research: Digital Engineering Archives (2001-).**

Regli was the sole academic member selected for the DoE/NNSA Nuclear Weapons Complex (NWC)-wide Model Archive Standards Team (MAST) during the 2001-2003 period. Contributed to official documents of the National Nuclear Security Administration (NNSA) used to define preservation strategies for CAD-based engineering artifacts. The Library of Congress’ Office of Strategic Initiatives supported subsequent research on CAD archiving under the National Digital Information Infrastructure Preservation Program (NDIIPP). Current results under IIS-0456001, “Digital Engineering Archives” include prototype systems for engineering preservation based on OAIS as well as a format registry for engineering datatypes.

**Research: National Cyber-Range (2009-2011).**

Supported the Johns Hopkins University Applied Physics Laboratories effort to design and implement the National CyberRange for DARPA. As part of this effort, Regli helped lead the specification and prototyping of a design rationale capture and knowledge management capability for large-scale cyber experimentation during Phase I and Phase II of this DARPA \$34M DARPA program. The CyberRange Knowledge Management tools included survey instruments for capturing lessons learned from experimenters, representation technologies (in OWL) for lightweight formalization of design elements, and techniques for design retrieval and reuse to enhance experiment reuse and preserve experimental content.

**Research & Education: Engineering Informatics (1997-).**

Regli established several interdisciplinary initiatives at Drexel in the area of Engineering Informatics. The objective of these programs is to fuse computer science with the needs of engineering, specifically data management, CAD search, manufacturing planning and collaborative design. Regli was PI on over \$4M of activities in this area, including the 1998 “KDI: Networked Engineering” project (part of the NSF’s Knowledge and Distributed Intelligence Initiative, and one of 42 awards of 755 submissions); as well as the 2006 “CI-TEAM Implementation Project: Cyber-Infrastructure for Engineering Informatics Education”, awarded by the NSF Office of Cyber-Infrastructure.

**Research Administration & Management: Drexel-FAA Partnership (2009-).**

Initiated a strategic partnership between Drexel University and the Federal Aviation Administration’s William J. Hughes Technical Center (WJHTC) in Atlantic County, NJ. As part of this effort, Regli developed an OTA contract vehicle with the Tech Center and created a plan for both technical and educational engagement across several colleges at Drexel and programs at the FAA. The focus of effort was to support the NextGen aviation system in the areas of Modeling & Simulation, Software Verification & Validation, and Human Factors.

**Research Administration & Management: ACIN (2001-2010).**

Regli has been involved in the US Army Communications Electronics Research Development and Engineering Center (CERDEC) Applied Communications and Information Networking (ACIN) Program (DAAB07-01-9-L504 to Drexel University as Prime Contractor) since 2001. In August of 2003, he became Associate Technical Director and created the role of Executive Director of the ACIN Program in Spring of 2008 and led its establishment as a Drexel-wide “AJ Drexel Institute”. As Executive Director from 2008–2010, Regli was responsible for coordinating an annual program budget of technical activities at Drexel of approximately \$4M/year and a total program budget of approximately \$8-10M/year and 12 full-time staff. He coordinated the research activities of over 50 graduate and undergraduate students as well as 15 faculty across 6 academic departments; oversaw the management and expansion of the ACIN Center for Entrepreneurship in Technology in Camden, NJ; as well as program expansion activities, business development, as well as aspect of corporate and government relations affecting the ACIN. ACIN research programs averages over \$3M/year of direct research funding to Drexel University during the 2003-2007 period, funding over 20 separate projects. Additionally, as part of these duties, Regli was involved in matters of document classification, public release, International Traffic in Arms Regulations (ITAR), as well as routine (monthly) briefings to CERDEC and other DoD Program Managers (PMs). Work executed under project ACIN has been transitioned to several PM and PEOs, as well as through transition efforts as part two major DARPA efforts (SAPIENT and SPEYES). In year 2008-2009 the ACIN Program supported over \$300M of other programs within the DoD.

**Research: Secure Wireless Agent Testbed (a.k.a. SWAT) (2001-2006).**

In 2001, Regli, along with colleague Moshe Kam (ECE), initiated a project under the ACIN Program to study information assurance techniques for handheld devices on wireless networks. The project produced multi-year research effort resulting in the design, development and deployment of the Secure Wireless Agent Testbed. The testbed has been key in several follow-on program (including the DARPA ATO/SAPIENT and IXO/SPEYES programs, as well as the Lockheed Martin Distributed Operations suite); and was/is part of several major demonstration programs for the United States Army, NATO and the United States Department of Justice. A company, Drakontas LLC, is successfully commercializing the SWAT technologies in areas of homeland defense, port security and situation awareness for public protectors.

**Service: Solid Modeling Association (2003-2008).**

In 2003, Regli was elected to the Executive Committee of the Solid Modeling Association (SMA) and serves as the Chair of the Association for the 2006-2007 period. SMA administers the annual ACM Symposium on Solid and Physical Modeling and maintains relationships with a number of journals that cover this interdisciplinary field. A major accomplishment of his efforts was the development of the Pierre Bezier Prize in Solid, Geometric and Physical Modeling, modeled after the ACM’s A.M. Turing Award. Regli is Co-General Chair for the 2009 meeting and was instrumental in developing a joint meeting structure with the SIAM Activity Group on Geometric Design.

**Research: Computer-Aided Tissue Engineering.**

Regli was co-author and co-PI for original proposal to the National Science Foundation Information Technology Research Program (ITR) establishing the Drexel University research program in Tissue engineering, “ITR: Design and Representation of Heterogeneous Structures” (DMI-0219176). Accomplishments under this award include the first computational techniques for computer-aided modeling the porous shapes needed for the design and manufacturing of tissue scaffolds. Under the DARPA/NSF CARGO Program (DMS-0310619), Regli developed techniques for representation and modeling of vascular structures with applications in surgical planning, analysis and manufacturing.

**Administration & Service: Establishment of the Computer Science Department (1999-2004).**

Regli was part of a team of faculty that established the Drexel University Computer Science Department and its Ph.D. program. In 2002, this program was successfully transitioned the program to an independent department in the Drexel College of Engineering.

**Administration: Partnerships with Lockheed Martin’s Advanced Technology Laboratories.**

Regli spent his 2003-2004 sabbatical as a guest researcher at the Lockheed Martin Advanced Technology Laboratories in Cherry Hill, NJ. Contributed to the Army Research Laboratory Warrior’s Edge Program and the Quantum Leap-2 exercise. Develop several concepts for cross-domain security for multi-agent systems, secure information delivery and

advanced networking. Work with Lockheed resulted in the submission of over 6 proposals to DARPA, CERDEC and other agencies; resulting in over \$20M in contract awards (on over \$10M of which Lockheed was prime contractor) and research programs in networking, situation awareness, and security.

**Research & Education: Undergraduate Computer Science Research.**

Regli has directed or co-directed over 100 Drexel University undergraduates on research experiences, senior designs and independent study projects. Of these, ten (10) have been acknowledged by Computing Research Association as part of their Outstanding Undergraduate competition. These include one winner of the national competition (2001) and one finalist (2004).

**Research & Education: The National Design Repository (1994-).**

Created the National Design Repository out of work performed when at NIST. The Repository is now a vital piece of national Cyber-Infrastructure, used worldwide as a source of benchmarks and standards for CAD research.

**Research: Network-Centric Design and Manufacturing.**

Starting in 1993-1994, Regli initiated a number of efforts at NIST to bring Internet technology and the nascent “web” to the CAD industry. This effort was supported in part by the DARPA (at that time ARPA) Defense Sciences Office’s Manufacturing Automation and Design Engineering (MADE) and Rapid Design and Engineering Optimization (RaDEO) Programs, as well as by the National Research Council. While at NIST, Dr. Regli chaired or co-chaired numerous government-industry-academia meetings focusing on developing strategic research programs in these areas.

**Research: IMACS & FRex (1993-1995).**

Regli, and colleagues SK Gupta and Dana Nau, established new techniques for integrating AI planning and geometric reasoning for manufacturability assessment and design evaluation. This project subsequently influenced the development of several commercial systems, including those at the United States Department of Energy. In addition, IMACS widely influenced the AI planning because of its novel methods for handling highly complex engineering domain knowledge. Regli co-guest edited a special issue of the *Communications of the ACM* on “Computer Science in Manufacturing” in February 1996 that highlighted these results and interdisciplinary effort in manufacturing.

## **F. Certifications and Credentials**

1. Department of Energy Clearance, L (01/11/11), Q (03/08/11).
2. Department of Defense, SECRET Clearance (since 2002)
3. Rank of Shodan, Shotokan Karate (First Degree Black Belt)  
International Shotokan Karate Federation, The Japan Karate Association.  
Registration Number IS-USA-1-2522, 11/23/2002
4. Professional proficiency in French (written and spoken)
5. Society of Actuaries, Exam 100 (1988)

## **2. Research, Scholarly, and Creative Activities**

### **A. Books**

#### **i. Theses**

1. *Geometric Algorithms for the Recognition of Features from Solid Models*. Ph.D. Thesis, The University of Maryland at College Park. December 1995. Also available as CS-TR-3564 and UMIACS-TR-95-115.
2. *Recognition of Volumetric Features from CAD Models: Problem Formalization and Algorithms*. M.S. Scholarly Paper. Department of Computer Science, The University of Maryland at College Park. May 1994. Available as ISR TR93-41.

## ii. Edited Proceedings

1. *Long Term Knowledge Retention Workshop Summary*, with Joshua Lubell, Sudarsan Rachuri, and Eswaran Subrahmanian. March 2006. NISTIR 7386.
2. *Proceedings of the 2005 IEEE Symposium on Multi-Agent Security and Survivability*, with V.S. Subrahmanian. Drexel University, August 30-31, 2005.
3. *Proceedings of the 1996 NIST Workshop on Network-Centric Computer-Aided Design*, with Peter F. Brown, Stephen J. J. Smith and Simon Szykman. Gaithersburg, Maryland, December 3-4, 1996. NIST IR 6043.
4. *Proceedings of the 1996 NIST Workshop on Computer-Aided Process Planning and Manufacturing Engineering*, with Swee Leong and Michael Smith. Gaithersburg, Maryland, June 10-11, 1996. NIST IR.
5. *Computer Science: A Working Partnership Joining Government, Industry, and Academia: A Conference Summary*. Department of Computer Science and Institute for Advanced Computer Studies, University of Maryland at College Park. March 30, 1994. Available as CS-TR-3251 and UMIACS-TR-94-41.

## iii. Chapters in Books

1. Metrics for Multiagent Systems, with Robert N. Lass and Evan A. Sultanik. *Performance Evaluation and Benchmarking of Intelligent Systems*, Raj Madhavan, Edward Tunstel and Elena Messina, Eds. Springer, 2009. ISBN: 978-1-4419-0491-1 (Print) 978-1-4419-0492-8 (Online). pp 1–19.
2. Fundamentals and Applications of Reverse Engineering in Engineering Design, with Lewis, K., Castellani, M., Simpson, T., Stone, R., and Wood, W., In *Handbook of Environmentally Conscious Mechanical Design*, 23 Mar 2007, Print ISBN: 9780471726364, Editor: Myer Kutz, Wiley, Hoboken, NJ, pp. 127–159.
3. Agent Transport Simulation for Dynamic Peer-to-Peer Network, with Evan A. Sultanik and Maxim D. Peysakhov. *Multi-Agent-Based Simulation VI, Lecture Notes in Artificial Intelligence 3891*, Revised and Invited Papers from the International Workshop on Multi-Agent-Based Simulation, July 2005, Utrecht, The Netherlands. Springer-Verlag Berlin Heidelberg, pp. 162–173, 2006. ISBN-10 3-540-33380-0.
4. Computational Topology and Swept Volumes, with Denis Blackmore, Yuriy Mileyko, Ming C. Leu and Wei Sun, in *Geometric and Algorithmic Aspects of Computer-Aided Design and Manufacturing*, in the DIMACS: Series in Discrete Mathematics and Theoretical Computer Science, Volume 67, American Mathematical Society. Ravi Janardan, Michiel Smid and Debasish Dutta, Editors. September 2005; ISBN: 0-8218-3628-5.
5. Service Discovery on Dynamic Peer-to-Peer Networks Using Mobile Agents, with Evan Sultanik. In *Agents and Peer-to-Peer Computing*. Lecture Notes in Computer Science, Springer-Verlag, Berlin. July, 2004.
6. Building and Evaluating Networked Engineering Environments, with Vera Zaychik, Thomas T. Hewett and Jonathan Sevy. Chapter 16, pp 229-235, of *Fourth IFIP WG 5.2 Workshop on Knowledge Intensive CAD (KIC-4)*, Umberto Cugini and Michael Wozny, Editors. International Federation for Information Processing (IFIP) Working Group 5.2. November, 2001. Extended version of the conference paper (listed below). Kluwer Academic Publishers; ISBN: 0792376196.
7. Enabling Technologies for Automated Redesign, with Dana Nau and James Hendler. *First IFIP WG 5.2 Workshop on Knowledge Intensive CAD (KIC-1)*, T. Tomiyama, M. Mäntylä, and S. Finger, Editors. International Federation for Information Processing (IFIP) Working Group 5.2. Kluwer Academic Publishers, 1996. ISBN 0412729105. pp. 455–463.
8. A Methodology for Systematic Generation and Evaluation of Alternative Operation Plans, with Satyandra K. Gupta, Dana S. Nau, and Guangming Zhang. *Advances in Feature Based Manufacturing*, Jami J. Shah, Martti Mäntylä, Dana S. Nau, Editors. Elsevier/North Holland, 1994, pp. 161–184. Also available as and URL [ftp://ftp.cs.umd.edu/pub/cim/papers/FBM\\_chapter3.ps](ftp://ftp.cs.umd.edu/pub/cim/papers/FBM_chapter3.ps).
9. Boundary Representation Based Feature Identification, with Mark R. Henderson, Gopal Srinath, Roger Stage, and Kim Walker. *Advances in Feature Based Manufacturing*, Jami J. Shah, Martti Mäntylä, Dana S. Nau, Editors. Elsevier/North Holland, 1994.

## B. Journal Publications

### i. Refereed Articles

1. CMAC Knowledge Management, with Frank Wieskoph et al . . . In preparation.
2. TITAN, with I. Mayk et al . . . In preparation.
3. Robust DCOP, with R. N. Lass and E. A. Sultanik. In preparation.
4. Scenario-Based Evaluation, with C. Cannon. In preparation.
5. MOBED, with R. N. Lass and E. A. Sultanik. Under review.
6. Geographic routing for massive-scale sensor networks, with Jaudelice de Oliveira, Anbu Elanchezian, Joydeep Tripathi and Lars Hanson. Document in preparation.
7. Development and Specification of a Reference Architecture for Agent-Based Systems, with I. Mayk, D. Nugyen, C. J. Dugan, J. B. Kopena, R. N. Lass, P. J. Modi, W. M. Mongan, J. K. Salvage, E. A. Sultanik. Presently under review for *IEEE Transactions on Systems, Man and Cybernetics—Part C: Applications and Reviews*.
8. Intelligent Support for Product Design: Looking Backward, Looking Forward, with Alice M. Agogino, Ashok K. Goel, Caroline C. Hayes and Irem Y. Tumer. *Transactions of the ASME, Journal of Computer and Information Science in Engineering* “10th Anniversary Special Issue,” Volume 11, Issue 2, June 2011. pp .
9. A Case Study in Physics-Based Simulation of a Snake Robot, with Richard Primerano and David Wilkie. *IEEE Transactions on Automation Science and Engineering*, Volume 8, Issue 3, July 2011. pp 664–671.
10. On the long-term retention of geometry-centric digital engineering artifacts, with Joseph Kopena and Michael Grauer. *Journal of Computer Aided Design*, Special issue from the SIAM/ACM Joint Symposium on Geometric and Physical Modeling. Volume 43, Number 7, July 2011. pp 820–837.
11. Putting the Crowd to Work in a Knowledge-Based Factory, with J. R. Corney, C. Torres-Sanchez, A. P. Jagadeesan, X. T. Yan and H. Medellin. *Advanced Engineering Informatics*, Volume 24, Issue 3, August 2010. pp 243–250.
12. Outsourcing labour to the cloud, with Jonathan Corney, Carmen Torres-Sanchez, and A. Prasanna Jagadeesan. *International Journal of Innovation and Sustainable Development*, Volume 4, Number 4, 7 May 2010, pp. 294–313.
13. Archiving the Semantics of Digital Engineering Artifacts: A Case Study, with Michael Grauer, David Wilkie, Joseph Kopena, Martin Piecyk, Jordan Osecki, Tim Simpson, Matt Bohm, Kemper Lewis and Rob Stone. *AI Magazine*, Special Issue from IAAI-09. Volume 31, Number 1, Spring 2010, pp 37–50.
14. Evaluating the Use of Cyberinfrastructure to Enhance Product Dissection Activities in the Classroom, with M. Devendorf, K. Lewis, T. Simpson and R. Stone. *Transactions of the ASME, Journal of Computer and Information Science in Engineering*, Volume 9, Number 4, December 2009, document number 041008.
15. Development and Specification of a Reference Model for Agent-Based Systems, with I. Mayk, C. J. Dugan, J. B. Kopena, R. N. Lass, P. J. Modi, W. M. Mongan, J. K. Salvage, E. A. Sultanik. *IEEE Transactions on Systems, Man and Cybernetics—Part C: Applications and Reviews*, Volume 39, Number 5, pp 572–596, September 2009.
16. Distributed Coordination of First Responders, with Joseph B. Kopena, Evan A. Sultanik, Robert N. Lass, Duc N. Nguyen, Christopher J. Dugan and Pragnesh J. Modi. *IEEE Internet Computing*, Volume 10, Number 1, January/February 2008. pp. 45–47.
17. An Approach to Integrating Shape and Biomedical Attributes in Vascular Models, with Jie Li and Wei Sun. *The Journal of Computer Aided Design*, Special Issue on “Human Modeling and Applications”, Karim Abdel-Malek, Editor. Volume 39, Issue 7, July 2007, Pages 598–609.

18. The Need for a Science of Engineering Informatics, *Artificial Intelligence for Engineering Design, Analysis and Manufacturing (AI-EDAM)*, Invited Paper, 20 Anniversary Issue, Volume 21, Number 1, January, 2007, pp 23–26.
19. A 3D Object Classifier for Discriminating Manufacturing Processes, with Cheuk Yiu Ip. *International Journal of Systems & Applications in Computer Graphics* (a.k.a. “Computers & Graphics”) special issue on “Mesh Analysis.” Volume 30, Number 6, November 2006, pp. 903-916.
20. Local Feature Extraction and Matching Partial Objects, with Dmitriy Bepalov and Ali Shokoufandeh. *Computer Aided Design* special issue on “Shape Similarity Detection and Search for CAD/CAE Applications”, Volume 38, Number 9, pp. 1020-1037. September 2006.
21. Hierarchical Role-based Viewing for Multi-level Information Security in Collaborative CAD, with Christopher D. Cera, Ilya Braude, Taeseong Kim, JungHyun Han. *ASME/ACM Transactions, Journal of Computer and Information Science in Engineering*. Volume 6, Number 1, March 2006. pp. 2–10.
22. Multi-Level Modeling and Access Control for Secure Collaborative Design, with Taeseong Kim, JungHyun Han, Christopher D. Cera, Hyunseung Choo. *Advanced Engineering Informatics*, Volume 20, Issue 1, January 2006, pp. 47–57.
23. Homogenization of Heterogeneous Tissue Scaffold: A comparison of mechanics, asymptotic homogenization, and finite element approach, with Z. Fang, C. Yan, W. Sun, A. Shokoufandeh. *Journal of Applied Bionics and Biomechanics*, Volume 2, Number 1, pp. 17–29, 2005.
24. Service-Based Computing on MANETs: Enabling Dynamic Interoperability of First Responders, with Vincent Cicirello, Iris Howley, Moshe Kam, Joseph Kopena, Gaurav Naik, William Regli, Evan Sultanik. *IEEE Intelligent Systems*, Volume 20, Number 5, September/October 2005. Pages 17–25. Special Issue on “Artificial Intelligence in Homeland Security.” Also featured in *IEEE Distributed Systems Online*, Volume 6, Number 11, November, 2005. <http://dsonline.computer.org>.
25. Computer-Aided Design of Porous Artifacts, with Craig Schroeder, Ali Shokoufandeh and Wei Sun. *The Journal of Computer Aided Design*, Special Issue on Heterogeneous Modeling, Vadim Shapiro and Alexander Pasko, Editors. Volume 37, Number 3, March 2005, pp. 339–353.
26. Designing Dependable Agent Systems for Mobile Wireless Networks, with Vincent Cicirello, Maxim Peysakhov, Gustave Anderson, Gaurav Naik, Kenneth Tsang, and Moshe Kam. *IEEE Intelligent Systems*, Volume 19, Number 5, September/October 2004. Pages 39–45. Special Issue on “Dependable Agent Systems.”
27. Role-based Viewing Envelopes for Information Protection in Collaborative Modeling, with Christopher D. Cera, Taeseong Kim and JungHyun Han. *Journal of Computer Aided Design* Special issue on Collaborative Design edited by Jerry Y. H. Fuh and Andrew Y. C. Nee. Volume 36, Number 8, August 2004. Pages 873–886.
28. Functional Modeling of Engineering Designs for the Semantic Web, with Joseph B. Kopena. *IEEE Data Engineering Bulletin*, IEEE Computer Society. Volume 26, Number 4, December, 2003. pp 55–62. Issue theme: “Making the Semantic Web Real,” Umeshwar Dayal, Harumi Kuno, Kevin Wilkinson, Editors. <ftp://ftp.research.microsoft.com/pub/debu11/A03DEC-CD.pdf>
29. Scale-space Representation and Classification of 3D Models, with Dmitriy Bepalov, Ali Shokoufandeh and Wei Sun. *ASME/ACM Transactions, Journal of Computer and Information Science in Engineering*. Special issue sponsored by ASME and ACM of invited papers from the *Eighth ACM/SIGGRAPH Symposium on Solid Modeling and Applications*. Volume 3, Issue 4, December 2003. pp 315–324.
30. A Study in Applying Case-Based Reasoning to Engineering Design: Mechanical Bearing Design, with Xiaoli Qin. *Journal of Artificial Intelligence in Engineering Design, Analysis and Manufacturing (AI-EDAM)*, special issue sponsored by AAAI SIGMAN, Volume 17, Number 3, June 2003. pp. 235–252.
31. DAMLJessKB: A Tool for Reasoning with the Semantic Web, with Joseph Kopena. *IEEE Intelligent Systems*, (“Semantic Web” Column), Volume 18, Number 3, May-June, 2003, pp. 74–77.

32. Using Assembly Representations to Enable Evolutionary Design of Lego Structures, with Maxim Peysakhov. *Journal of Artificial Intelligence in Engineering Design, Analysis and Manufacturing (AI-EDAM)*, Volume 17, Number 2, April 2003. pp 155–168.
33. Capturing Communication and Context in the Software Project Lifecycle, with Vera Zaychik. *Research in Engineering Design*, Volume 14, 2003, pp. 75–88.
34. An Approach to Feature-based Comparison of Solid Models of Machined Parts, with Vincent Cicirello. *Journal of Artificial Intelligence in Engineering Design, Analysis and Manufacturing (AI-EDAM)*, Volume 16, Issue 6, 2002, pp. 385–399.
35. A Multi-User 3D Environment for Collaborative Authoring of Design Semantics, with Christopher Cera, Ilya Braude, Cheryl Foster, and Yuri Shapirstein. *IEEE Computer Graphics and Applications*, Special Issue on “Graphics in Advanced Computer-Aided Design.” Edited by John Dill, Carl Machover, and Frank Bliss. Volume 22, Number 3, May/June 2002. pp. 43–55.
36. Solid Model Databases: Techniques and Empirical Results, with David McWherter, Mitchell Peabody and Ali Shokoufandeh. *ASME/ACM Transactions, Journal of Computer and Information Science in Engineering*. Volume 1, Issue 4, December 2001, pp 300–310. Special issue sponsored by ASME and ACM on “Applications of Solid Modeling in Product Development,” a selection of invited papers from the *Sixth ACM/SIGGRAPH Symposium on Solid Modeling and Applications*.
37. A student project in software evaluation, with Michael F. Czajkowski, Cheryl V. Foster, Thomas T. Hewett, Joseph A. Casacio and Heike A. Sperber. *ACM SIGCSE Bulletin*, Volume 33, Number 3, September 2001, pp 13–16. ISSN 0097-8418. In a collection of papers from the 2001 *Conference on Integrating Technology into Computer Science Education*.
38. An Approach to Capturing Structure, Behavior and Function of Artifacts in Computer-Aided Design, with Lisa P. Anthony, Jon E. John and Santiago V. Lombeyda. *ASME/ACM Transactions, Journal of Computer and Information Science in Engineering*. Volume 1, Issue 2, June 2001. pp. 186–192.
39. The Role of Knowledge in Next-Generation Product Development Systems, with Ram D. Sriram and Simon Szykman. *Transactions of the ASME, the Journal of Computer and Information Science in Engineering* (now the *ASME/ACM Transactions, Journal of Computer and Information Science in Engineering*), Volume 1, Number 1, March, 2001. pp. 3–11.
40. Algorithms for Feature Recognition from Solid Models: A Status Report, with Jung-Hyun Han and Michael Pratt. *IEEE Transactions on Robotics and Automation*. Volume 16, Number 5, December 2000, pp. 782–796.
41. A Survey of Design Rationale Systems: Approaches, Representation, Capture and Retrieval, with Xiaochun Hu, Michael Atwood and Wei Sun. *Engineering with Computers: An International Journal for Simulation-Based Engineering*, Special Issue on Computer Aided Engineering in Honor of Professor Steven J. Fenves. Edited by Kincho H. Law, Ram D. Sriram and James Garrett. Volume 16, Issue 3/4, December 2000. pp. 209–235.
42. Building an IP Network Quality-of-Service Testbed, with David McWherter and Jonathan Sevy. *IEEE Internet Computing*, Volume 4, Number 4, July/August, 2000. pp. 65–73.
43. Managing Digital Libraries for Computer-Aided Design, with Vincent Cicirello. *Journal of Computer Aided Design*, Volume 32, Issue 2, February 2000. pp. 119–132. Special Issue on “CAD After 2000,” Mohsen Rezyat, Editor.
44. Hint-Based Reasoning for Feature Recognition: Status Report, with JungHyun Han and Steve Brooks. *Journal of Computer Aided Design*. November 1998, Vol 30, No 13, pp. 1003–1007.
45. IMACS: A Case Study in Real-World Planning, with Satyandra K. Gupta and Dana S. Nau. *IEEE Intelligent Systems and Applications* (formerly *IEEE Expert and Intelligent Systems*). May/June 1998, Volume 13, Number 3, pp. 49–60.

46. A Repository of Designs for Process and Assembly Planning, with Daniel M. Gaines. *Journal of Computer Aided Design*. Volume 29, Number 12, December 1997, pp. 895–905. An earlier version is available as NIST Interagency Report #5982.
47. Automated Manufacturability Analysis: A Survey, with Diganta Das, Satyandra K. Gupta, and Dana S. Nau. *Research in Engineering Design*. Volume 9, Number 3, 1997, pp. 168–190. Also available as NIST IR #5713, CS-TR-3404, UMIACS-TR-95-08, ISR-TR-95-14 and URL [ftp://ftp.cs.umd.edu/pub/cim/papers/ISR\\_TR\\_95-14.ps](ftp://ftp.cs.umd.edu/pub/cim/papers/ISR_TR_95-14.ps).
48. Internet-Enabled Computer-Aided Design. *IEEE Internet Computing*, January-February 1997, Volume 1, Number 1, pp. 39–51.
49. Towards Multi-Processor Feature Recognition, with Satyandra K. Gupta and Dana S. Nau. *Journal of Computer Aided Design*, Volume 29, Number 1, January 1997, pp. 37–51. Also available as NIST IR #5706, CS-TR-3375, UMIACS-TR-94-126, ISR-TR-94-82 and URL [ftp://ftp.cs.umd.edu/pub/cim/papers/ISR\\_TR\\_FR-94-82.ps](ftp://ftp.cs.umd.edu/pub/cim/papers/ISR_TR_FR-94-82.ps).
50. Extracting Alternative Machining Features: An Algorithmic Approach, with Satyandra K. Gupta and Dana S. Nau. *Research in Engineering Design*. Volume 7, Number 3, pp. 173–192, 1995. Also available as CS-TR-3329, UMIACS-TR-94-95, ISR-TR94-55, and URL [ftp://ftp.cs.umd.edu/pub/cim/papers/ISR\\_TR\\_94-55.ps](ftp://ftp.cs.umd.edu/pub/cim/papers/ISR_TR_94-55.ps).
51. Building MRSEV Models for CAM Applications, with Satyandra K. Gupta, Thomas R. Kramer, Dana S. Nau, and Guangming Zhang. *Advances in Engineering Software*, 1994, Volume 20, Number 2/3, pp. 121–139. Special issue on Feature-Based Design and Manufacturing. Also available as CS-TR-3331, UMIACS-94-97, ISR-TR93-84, and URL [ftp://ftp.cs.umd.edu/pub/cim/papers/ISR\\_TR\\_93-84.ps](ftp://ftp.cs.umd.edu/pub/cim/papers/ISR_TR_93-84.ps).
52. Integrating DFM with CAD Through Design Critiquing, with Satyandra K. Gupta and Dana S. Nau. *Concurrent Engineering: Research and Applications*, 1994, Volume 2, Number 2, pp. 85–95. Special issue on AI in Concurrent Engineering. Also available as CS-TR-3330, UMIACS-TR-94-96, ISR-TR94-11, and URL [ftp://ftp.cs.umd.edu/pub/cim/papers/ISR\\_TR\\_94-11.ps](ftp://ftp.cs.umd.edu/pub/cim/papers/ISR_TR_94-11.ps).

## ii. Edited Issues of Refereed Publications

1. *Journal of Artificial Intelligence in Engineering, Design, Analysis and Manufacturing* (AI-EDAM), a special issue “3D Shape” Cambridge University Press. November 2011. Edited with Sean Hanna.
2. *Journal of Computer-Aided Design*, special issue on *Shape Similarity Detection and Search for CAD/CAE Applications*. Elsevier Science Ltd. September 2006. Edited with Michela Spagnuolo.
3. *Journal of Artificial Intelligence in Engineering, Design, Analysis and Manufacturing* (AI-EDAM), a special issue “AI in Manufacturing: State of the Art,” sponsored by the American Association for Artificial Intelligence (AAAI) Special Interest Group on AI in Manufacturing (SIGMAN). Cambridge University Press. 2003. Edited with Daniel Gaines.
4. *Journal of Computer-Aided Design*, special issue on *Feature-Based Manufacturing*. Elsevier Science Ltd. Volume 33, Issue 9, August 2001. Edited with Satyandra K. Gupta.
5. *IEEE Internet Computing*, special issue on *Knowledge Networking*. IEEE Press. Volume 4, Number 5, September-October, 2000. Edited with Frank Maurer.
6. *Journal of Artificial Intelligence in Engineering, Design, Analysis and Manufacturing* (AI-EDAM), a special issue “AI in Manufacturing: State of the Art,” sponsored by the American Association for Artificial Intelligence (AAAI) Special Interest Group on AI in Manufacturing (SIGMAN). Cambridge University Press. Volume 14, Number 4. September, 2000.
7. *Journal of Computer-Aided Design*, special issue on *Network-Centric Computer-Aided Design*. Elsevier Science Ltd. Volume 30, Number 6. June/July, 1998. Edited with Jai Menon.

8. *IEEE Internet Computing*, special issue on *Intranets*. IEEE Press. Volume 1, Number 5, September-October, 1997.
9. *The Communications of the ACM*, special issue on *Computer Science in Manufacturing*. Association for Computing Machinery, Volume 39, Number 2, February 1996. Edited with Michael Wozny.

### C. Monographs, Reports, and Extension Publications

N/A.

### D. Book Reviews, Other Articles, and Notes

N/A.

### E. Talks, Abstracts, and Other Professional Papers Presented

#### i. Invited Talks, Etc.

<b>Date</b>	<b>Activity</b>	<b>Location</b>
2011	lecture	Czech Technical University, Prague, Network-Centric Systems
2011	lecture	Czech Technical University, Prague, 3D Search
2011	lecture	Czech Technical University, Prague, Distributed Decision Making
2010	panelist	FAA ATCA Conference, Cyber Security Panel
2010	invited talk	BBN, Cambridge, MA
2008	invited talk	National Archives and Records Administration (NARA) Partnerships in Innovation II
2007	lecture	FAA Tech Center
2007	lecture	NIST, Boulder EEEL
2007	lecture	Penn State University Department of Industrial Engineering
2007	lecture	Large Scale Multi-Agent Architecture Workshop, National Security Agency, College Park, MD
2007	lecture	"Digital Engineering Archives", Atlantic Workshop on Long Term Knowledge Retention, 12-13 February
2006	lecture	Drexel University, College of Information Science and Technology
2005	lecture	National Science Foundation, DMII EXCITE Workshop
2005	lecture	Army Research Laboratory, Intelligent Agent SubIPT Meeting
2004	lecture/demo	Telcordia Technologies, Advanced Network Research
2004	lecture	National Security Agency, Fall 2004 Secure Mobility Forum
2004	lecture	US Army CERDEC, Command and Control Directorate (C2D) Intelligent Agent Sub-IPT Meeting
2003	lecture	Princeton University Department of Computer Science, Geometry Seminar
2003	lecture	National Institute of Standards and Technology Manufacturing Systems Integration Division
2003	lecture	Saint Joseph's University Department of Mathematics and Computer Science
2003	lecture	Rutgers University Department of Computer Science
2002	lecture	Lockheed Martin, Advanced Technologies Laboratory
2002	lecture	Penn State University Department of Industrial Engineering
2002	lecture	United States Army, Ft. Monmouth, NJ Communications and Electronics Command (CECOM), C2 Division
2002	lecture	United States Army, Ft. Monmouth, NJ

		Communications and Electronics Command (CECOM), C2 Division
2002	lecture	United States Department of Energy Lawrence Livermore National Laboratories
2002	lecture	Spatial Technologies Insider's Summit
2002	lecture	United States Department of Energy Kansas City Plant (KCP) Honeywell Federal Manufacturing and Technologies
2002	lecture	New Mexico Software, Incorporated
2002	lecture	United States Department of Energy Los Alamos National Laboratories Security and Non-Proliferation Division
2002	lecture	National Institute of Standards and Technology Manufacturing Systems Integration Division
2001	lecture	United States Military Academy at West Point Department of Electrical Engineering and Computer Science
2001	panelist	Princeton University and NEC Research Institute Department of Computer Science Workshop on Shape-Based Retrieval and Analysis of 3D Models
2000	lecture	The University of Southern California Department of Industrial Engineering
2000	lecture	The University of Michigan Department of Mechanical Engineering and Mechanics Fall 2000 Design and Manufacturing Seminar Series
2000	lecture	The University of Delaware Department of Computer and Information Science
2000	lecture	AIPS 2000, The AI Planning Conference Workshop on Decision Theoretic Planning
2000	lecture	Lehigh University Department of Industrial Engineering
1999	lecture	Drexel University Department of Mechanical Engineering
1999	lecture	SciTech V, Philadelphia Science and Technology Town Meeting
1999	lecture	Boeing Aerospace, Mathematics & Computing Technology Division
1999	lecture	AT&T Labs, Internet Platforms Technology Organization
1998	lecture	Mechanical Engineering, University of Maryland at College Park
1998	lecture	SIAM Features Workshop
1998	lecture	Structural Dynamics Research Corporation (CCSD '98)
1997	lecture	Society of Automotive Engineers
1997	lecture	Bentley Systems Incorporated (PES '97)
1997	lecture	Johns Hopkins University, Department of Computer Science
1997	lecture	Bentley Systems Incorporated
1997	lecture	IBM T. J. Watson Laboratories
1997	lecture	Bell Communications Research Laboratories (Bellcore)
1997	lecture	ACM Solid Modeling Symposium
1997	panel chair	TeamCAD Workshop at Georgia Tech.
1997	lecture	Global Virtual Manufacturing Conference
1996	lecture	CAM-I Features Workshop
1996	lecture	University of Illinois at Urbana-Champaign, Department of Computer Science
1996	panelist	IEEE Internet Computing Roundtable
1996	panel chair	ASME Computers in Engineering Conference
1996	panel chair	AAAI SIGMAN Workshop
1996	lecture	Structural Dynamics Research Corporation (SDRC)
1996	lecture	Siemens Corporate Research
1996	lecture	Spatial Technologies Incorporated

1996	lecture	AMP Incorporated
1995	lecture	Drexel University, Department of Math and Computer Science
1995	lecture	Saint Joseph's University, Department of Mathematics and Computer Science
1994	lecture	The University of Pennsylvania, GRASP Lab
1994	lecture	West Virginia University, Concurrent Engineering Research Center (CERC)
1993	lecture	Lehigh University, Department of Electrical Engineering and Computer Science
1993	lecture	Carnegie-Mellon University, Engineering Design Research Center (EDRC)
1992	lecture	National Institute of Standards and Technology
1992	lecture	Saint Joseph's University, Department of Mathematics and Computer Science

## ii. Refereed<sup>1</sup> Conference Papers, Contributed Talks, Etc.

1. MilCom 1
2. MilCom 2
3. MilCom 3
4. Tactical Information Technology for Assured Network Operations (TITAN) Information Dissemination and Management (ID&M) for Battle Command (BC) Support Services, with I. Mayk, M. Mai, A. Chan, T. Urness, B. Goren, S. Randles, Z. Jastrebski, W. Chatam, J. Ruschmeyer, Lex Lehman, D. Nguyen, M. McCurdy, D. Millar, I. Simmons, C. Cannon, W. Regli, A. Patwardhan, G. Tassone, J. Lindquist, G. Jewell, R. Forkenbrock, J. Moyer, Matt Nicholson, F. Koss, R. Wray, Mike Nardone, J. Bradshaw, J. Lott, P. Smith, A. Borgman and J. Dustin. 27th Army Science Conference, Orlando, Florida, November 29–December 2, 2010.
5. XO: XMPP Overlay Service for Distributed Chat, with Robert N. Lass, Joe Macker, David Millar, and Ian Taylor. MilCom 2010: Military Communications Conference, Oct 31–Nov 3, San Jose, CA.
6. Dominating Sets of Agents in Visibility Graphs: Distributed Algorithms for Art Gallery Problems. Evan A. Sultanik, Ali Shokoufandeh, and William C. Regli. In Proceedings of the International Conference on Autonomous Agents and Multiagent Systems. May, 2010, Toronto, ON, Canada. pp. 797-804.
7. Ontologies for Distributed Command and Control Messaging, with Duc N. Nguyen, Joseph B. Kopena and Boon Thau Loo. Proceedings of the International Conference on Formal Ontology in Information Systems, May 2010.
8. Towards Crowdsourcing Translation Tasks in Library Cataloging, with Jonathan Corney, Andrew Lynn, Carmen Torres, and Paola Di Maio. 2010 IEEE International Conference on Digital Ecosystems and Technologies (IEEE DEST 2010), Dubai, U.A.E., April 2010.
9. A Framework for Preservable Geometry-Centric Artifacts, with Michael Grauer and Joseph Kopena. 2009 SIAM/ACM Joint Conference on Geometric and Physical Modeling, October 4–8, San Francisco, CA. pp. 67–78.
10. Geometric Reasoning via Internet CrowdSourcing, with Jonathan Corney et al. 2009 SIAM/ACM Joint Conference on Geometric and Physical Modeling. October 4–8, San Francisco, CA. pp. 313–318.
11. Message Models and Aggregation in Knowledge Based Middleware for Rich Sensor Systems, with Joseph Kopena and Boon Thau Loo, 6th International Workshop on Data Management for Sensor Networks (DMSN'09). In conjunction with VLDB 2009 August 24, 2009, Lyon, FRANCE.
12. Robust Distributed Constraint Reasoning, with Robert Lass and Evan Sultanik. Eleventh International Workshop on Distributed Constraint Reasoning (DCR), July 13, 2009, Pasadena, California, USA.
13. Dynamic Configuration of Agent Organizations, with Evan Sultanik and Robert Lass. Twenty-First International Joint Conference on Artificial Intelligence (IJCAI-09), July 11–17, 2009, Pasadena, California, USA. Acceptance rate 25.7%.

<sup>1</sup>Where available, acceptance rate data are given for event.

14. Archiving the Semantics of Digital Engineering Artifacts in CIBER-U, with Michael Grauer, David Wilkie, Joseph Kopena, Martin Piecyk and Jordan Osecki. Twenty-First Annual Conference on Innovative Applications of Artificial Intelligence (IAAI-09). July 14–17, 2009, Pasadena, California, USA. **IAAI DEPLOYED APPLICATION AWARD.**
15. Validation of Purdue Engineering Shape Benchmark clusters by Crowdsourcing, with Jonathan Corney et al., 6th International Product Lifecycle Management Conference, 6–8 July 2009, Bath, UK.
16. Constant Cost of the Computation-Unit in Efficiency Graphs for DCOPs. Marius Silaghi, Robert N. Lass, Evan A. Sultanik, William C. Regli, Toshihiro Matsui, and Makoto Yokoo. In Proceedings of the International Conference on Intelligent Agent Technology. Short Paper. December, 2008, Sydney, Australia. (18% acceptance rate for full papers. 28% acceptance rate for short papers.)
17. A Study of Shape Distributions for Estimating Histologic Grade, with Jasper Zhang, Sokol Petushi, Fernando Garcia, David Edward Breen. 30th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Vancouver, British Columbia, Canada, 20–24th August, 2008.
18. Measurement Techniques for Multiagent Systems. Robert N. Lass, Evan A. Sultanik, and William C. Regli. In Proceedings of Performance Metrics for Intelligent Systems. August, 2008, Gaithersburg, Maryland.
19. Dynamic Distributed Constraint Reasoning, with Robert Lass and Evan Sultanik. Twenty-Third AAAI Conference on Artificial Intelligence (AAAI-08), Chicago, Illinois, July 13–17, 2008. Short paper. Acceptance rate 26% (958 submissions, 227 accepted full papers and 23 accepted short papers).
20. Toward a Multi-Disciplinary Model for Bio-Robotic Systems, with Richard Primerano and David Wilkie. IEEE International Conference on Robotics and Automation (ICRA08), Pasadena, CA, May 19–23, 2008. Acceptance rate 43% (641 papers accepted of 1476 submissions).
21. The Operation Point Units of Distributed Constraint Solvers, with Marius Silaghi, Robert N. Lass, Evan A. Sultanik, Toshihiro Matsui and Makoto Yokoo. Distributed Constraint Reasoning Workshop at AAMAS 2008, 13 May, 2008, Estoril, Portugal.
22. Constant Cost of the Computation-Unit in Efficiency Graphs, with Marius Silaghi, Robert N. Lass, Evan Sultanik, Toshihiro Matsui and Makoto Yokoo. Optimisation in Multi-Agent Systems Workshop at AAMAS 2008, 12–13 May, 2008, Estoril, Portugal.
23. Coordination of First Responders Under Communication and Resource Constraints, with Joseph B. Kopena, Evan A. Sultanik, Robert N. Lass, Duc N. Nguyen, Christopher J. Dugan and Pragnesh J. Modi. The Seventh International Conference on Autonomous Agents and Multiagent Systems (AAMAS 2008), 23 May 12-16, 2008, Estoril, Portugal.
24. DCOPolis: A Framework for Simulating and Deploying Distributed Constraint Optimization Algorithms, with Evan A. Sultanik and Robert N. Lass. Distributed Constraint Reasoning Workshop, 23 September 2007, Providence, RI.
25. Evaluation of CBR on Live Networks, with Robert N. Lass, Evan A. Sultanik and Pragnesh Jay Modi. Distributed Constraint Reasoning Workshop, 23 September, 2007, Providence, RI
26. Using Cyberinfrastructure to Enhance Product Dissection in the Classroom, with Timothy Simpson, etc. IIE Annual Conference and Exposition, May 19-23, 2007, Nashville, TN.
27. Extending CIBER-U: Using Cyberinfrastructure to Teach Design and Innovation to High School Students, ASEE 2008.
28. Evaluating the Use of Cyberinfrastructure in the Classroom to Enhance Product Dissection, with Matt Devendorf, Kemper Lewis, Timothy W. Simpson and Robert B. Stone. Proceedings of DETC'07, The ASME 2007 Design Engineering Technical Conferences and Computers and Information in Engineering Conference, September 4-7, Las Vegas, NV, USA, DETC2007/DTM-35549.

29. Cyberinfrastructure-Enabled Product Dissection: Some Lessons Learned, with Timothy Simpson, Kemper Lewis and Robert Stone. Proceedings of DETC'07, The ASME 2007 Design Engineering Technical Conferences and Computers and Information in Engineering Conference, September 4-7, Las Vegas, NV, USA,
30. A Simulation Framework For Robotic System Design, with David Wilkie and Richard Primerano. ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, 4-7 September, 2007, Las Vegas, NV. Proceedings of DETC'07, The ASME 2007 Design Engineering Technical Conferences and Computers and Information in Engineering Conference, September 4-7, Las Vegas, NV, USA,
31. Towards a Format Registry for Engineering Data, Michael J. Grauer, Iris K. Howley, Joseph B. Kopena, William C. Regli. Proceedings of DETC'07, The ASME 2007 Design Engineering Technical Conferences and Computers and Information in Engineering Conference, September 4-7, Las Vegas, NV, USA,
32. Analyzing the Performance of Distributed Algorithms, Robert N. Lass, Evan A. Sultanik and William C. Regli Performance Metrics for Intelligent Systems, 28-30 August, 2007, Gaithersburg, MD
33. Dynamic Analysis of Agent Frameworks in Support of a Multiagent Systems Reference Model, William M. Mongan, Christopher J. Dugan, Robert N. Lass, Andrew K. Hight, Jeff Salvage, William C. Regli and Pragnesh J. Modi, IADIS International Conference Intelligent Systems and Agents 2007, Lisbon, Portugal, 3-8 July 2007.
34. On Modeling Multi-Agent Task Scheduling as a Distributed Constraint Optimization Problem, with Evan Sultanik and P. Jay Modi. *Twentieth International Joint Conference on Artificial Intelligence (IJCAI 2007)*, Hyderabad, India, January 6-12, 2007. (1353 submissions, 212 accepted for oral presentation, acceptance rate 16%).
35. A Reference Model for Agent-Based Command and Control Systems, with Christopher J. Dugan, Pragnesh Jay Modi, Israel Mayk. *25th Army Science Conference (ASC)*, Orlando, Florida, November 27-30, 2006. (91 submissions, 15 accepted papers, acceptance rate 14%).
36. Constraint Propagation for Domain Bounding in C.TAEMS Task Scheduling, with Evan Sultanik and P. Jay Modi. *12th International Conference on Principles and Practice of Constraint Programming (CP2006)*, September 24-29, 2006, Nantes, France.
37. CAD Archives Based on OAIS, with Joseph Kopena and Joshua Shaffer. *ASME Design Engineering Technical Conferences, Computers and Information Science in Engineering (ASME DETC CIE 2006)*, September 10-13, 2006, Philadelphia, PA, USA. DETC2006-99675.
38. The Case for a Reference Model for Agent-Based Systems with Pragnesh Jay Modi and Israel Mayk, *IEEE Workshop on Distributed Intelligent Systems "Collective Intelligence and its Applications"*, Knowledge Systems for Coalition Operations Track, Prague, Czech Republic. June 15-16, 2006. (58 accepted papers out of 80 submissions).
39. Towards a Reference Model for Intelligent Agent Systems, with Pragnesh Jay Modi, Spiros Mancoridis, William M. Mongan, and Israel Mayk. *Fifth International Joint Conference on Autonomous Agents and Multi-agent Systems (AAMAS 2006)*, Future University, Hakodate, Japan, 8-12 May 2006. Full Paper, Industry Track.
40. Quorum Sensing on Mobile Ad Hoc Networks, with Maxim Peysakhov, Christopher Dugan and Pragnesh Jay Modi. Poster Paper. *Fifth International Joint Conference on Autonomous Agents and Multi-agent Systems (AAMAS 2006)*, Future University, Hakodate, Japan, 8-12 May 2006. Short Paper. 550 submissions, 127 full papers, 135 short papers. Acceptance rate for short papers 45%.
41. Swept Volume Representation of Material Deposition Processes for Tissue Scaffold Fabrication, with Jei Li and Wei Sun. *ASME Design Engineering Technical Conferences, Design for Manufacturing and the Life Cycle (ASME DETC DFM 2005)*, September 24-28, 2005, Long Beach, California, USA. Paper DETC2005-85278
42. Conceptual Design Knowledge Management and the Semantic Web, with Joseph Kopena and Christopher Cera. *ASME Design Engineering Technical Conferences, 25th Computers and Information in Engineering Conference (ASME DETC CIE)*. September 24-28, 2005, Long Beach, California, USA. Paper DETC2005-85310.

43. Web Service Interfaces for Design Repositories, with Joseph Kopena and Joshua Shaffer. *ASME Design Engineering Technical Conferences, 25th Computers and Information in Engineering Conference (ASME DETC CIE)*. September 24–28, 2005, Long Beach, California, USA. Paper DETC2005-85386.
44. Designing decentralized software for a wireless network environment: evaluating patterns of mobility for a mobile agent swarm, with Andy Mroczkowski and Vincent Cicirello. *IEEE 2nd Symposium on Multi-Agent Security and Survivability*, August 30-31, 2005, pp 49–57. Philadelphia, PA. (45% acceptance rate).
45. Agent survivability through power awareness, with Maxim Peysakhov, Andy Mroczkowski, Leonardo F. Urbano, Jacob Warren, Vincent Cicirello and Moshe Kam. *IEEE 2nd Symposium on Multi-Agent Security and Survivability*, August 30-31, 2005, pp 31–38. Philadelphia, PA. (45% acceptance rate).
46. A Framework for Communication Planning on Mobile Devices, with Joseph Kopena. *Nineteenth International Joint Conference on Artificial Intelligence (IJCAI 2005)*, Edinburgh, Scotland, July 30 to August 5, 2005. Poster Paper. (Acceptance rate 22%, 112 out of 514 poster submissions).
47. Stable Service Placement on Dynamic Peer-to-Peer Networks: A Heuristic for the Distributed k-Center Problem, with Evan A. Sultanik (Poster Paper). *Proceedings of the Twentieth National Conference on Artificial Intelligence (AAAI 2005)*, July 9-13, 2005, Pittsburgh, Pennsylvania. AAAI Press. (803 submissions, 223 accepted papers and 75 accepted posters, overall 37% rate for posters).
48. An Ecological Approach to Agent Population Management with Maxim D. Peysakhov, Robert N. Lass, and Moshe Kam (Poster Paper). *Proceedings of the Twentieth National Conference on Artificial Intelligence (AAAI 2005)*, July 9-13, 2005, Pittsburgh, Pennsylvania. AAAI Press. (803 submissions, 223 accepted papers and 75 accepted posters, overall 37% rate for posters).
49. Stability and Control of Agent Ecosystems with Maxim Peysakhov, Robert Lass and Moshe Kam. Poster Paper. *Fourth International Joint Conference on Autonomous Agents and Multi-agent Systems (AAMAS 2005)*, Utrecht University, 25–29 July 2005. (Acceptance rate for full papers 24%, posters 23%).
50. Service-Based Computing for Agents on Disruption and Delay Prone Networks with Joseph Kopena, Guarav Naik, Maxim Peysakhov, and Evan Sultanik. Poster Paper. *Fourth International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS 2005)*, Utrecht University, 25–29 July 2005. (Acceptance rate for full papers 24%, posters 23%).
51. A Computer-aided Multi-scale Modeling and Direct Fabrication of Bone Structure, with Zhibing Fang, Binil Starly, Wei Sun and Ali Shoukfandeh. 2005 International CAD Conference and Exhibition, June 20-24, Bangkok, Thailand. *Computer-Aided Design & Applications*, Volume 2, Number 5, pp. 627-634.
52. Content-Based Classification of CAD Models with Supervised Learning with Cheuk Yiu Ip. 2005 International CAD Conference and Exhibition, June 20-24, Bangkok, Thailand. *Computer-Aided Design & Applications*, Volume 2, Number 5, pp. 609-617.
53. Three-Dimensional Reconstruction for Medical-CAD Modeling, with Binil Starly, Zhibing Fang, Wei Sun and Ali Shoukfandeh. 2005 International CAD Conference and Exhibition, June 20-24, Bangkok, Thailand. *Computer-Aided Design & Applications*, Volume 2, Numbers 1-4, pp. 431-438.
54. Stochastic Microgeometry for Displacement Mapping, with Craig A. Schroeder, David E. Breen, and Christopher D. Cera. International Conference on Shape Modeling and Applications (SMI2005), 15–17 June 2005, MIT, Cambridge, MA, USA. pp. 164–173
55. Manufacturing Classification of CAD Models Using Curvature and SVMs, with Cheuk Yiu Ip. International Conference on Shape Modeling and Applications (SMI2005), 15–17 June 2005, MIT, Cambridge, MA, USA. pp. 361–365.
56. Benchmarking Search Techniques for CAD, with Dmitriy Bepalov. Cheuk Yiu Ip and Joshua Shaffer. 2005 ACM Symposium on Solid and Physical Modeling (SPM) June 13–15, 2005, MIT, Cambridge, MA, USA. pp. 275–286.

57. Network Awareness and the Philadelphia Area Urban Wireless Network Testbed, with Joseph B. Kopena, Vincent A. Cicirello, Maxim Peysakhov, Kris Malfettone, Andrew Mroczkowski, Gaurav Naik, Evan Sultanik, Moshe Kam, and William C. Regli. 2005 AAAI Spring Symposium on AI Technologies for Homeland Security, Technical Report SS-05-01, pages 70–75. AAAI Press. March 21–23, 2005, Stanford University, CA.
58. Ant Inspired Server Population Management in a Service-Based Computing Environment, with Maxim Peysakhov, in the *IEEE Swarm Intelligence Symposium*, June 8-10, 2005, pp 357–364, Pasadena, California. **BEST APPLICATION PAPER AWARD.**
59. The Mobile Wireless Philadelphia Area Testbed, with Gustave Anderson, Gaurav Naik, and Moshe Kam, in the *12th Annual Network and Distributed System Security Symposium*, Catamaran Resort Hotel, San Diego, California, 3–4 February 2005.
60. Two-Phase Structure Representation And Design: Tissue Engineered 3-D Construct Connectivity Study with C. Gomez, M.F. Demirci, A. Shokoufandeh and S. Wei. *Biomedical Engineering Society Annual Fall Meeting*, October 13–16, 2004. Philadelphia, PA. Paper # 1148.
61. Local Feature Extraction Using Scale-Space Decomposition, with Dmitriy Bespalov, Ali Shokoufandeh and Wei Sun. *ASME Design Engineering Technical Conferences, 24th Computers and Information in Engineering Conference (CIE)*, Sep. 28–Oct. 2, 2004 in Salt Lake City, Utah. Paper DETC2004-57702.
62. Engineering Multi-Agent Systems, with Donovan Artz, Vincent Cicirello and Moshe Kam, *2004 IEEE Symposium on Multi-Agent Security and Survivability*, 30-31 Aug. 2004. Philadelphia, PA. pp. 100–107.
63. Network Awareness for Mobile Agents on Ad-Hoc Networks, with Donovan Artz, Maxim Peysakhov and Evan Sultanik, *The Third International Joint Conference on Autonomous Agents & Multi Agent Systems*. New York, July 19–23, 2004, pages 368–375. 24% conference paper acceptance rate.
64. Service Discovery on Dynamic Peer-to-Peer Networks Using Mobile Agents, Evan A. Sultanik and William C. Regli, *Proceedings of the Third International Workshop on Agents and Peer-to-Peer Computing*, AAMAS2004. New York, July 19-23, 2004. Lecture Notes in Computer Science, Springer.
65. Distributed Hash Tables with Mobile Agents, Michael Thomas and William C. Regli, *Proceedings of the Third International Workshop on Agents and Peer-to-Peer Computing*, AAMAS2004. New York, July 19-23, 2004. Lecture Notes in Computer Science, Springer.
66. Image Based Bio-CAD Modeling and Its Applications to Biomedical and Tissue Engineering, with B. Starly, A. Darling, C. Gomez, J. Nam, W. Sun , A. Shokoufandeh. *Ninth ACM/SIGGRAPH Symposium on Solid Modeling and Applications*, Genova, Italy. June 7-11, 2004. pp. 273–278. Poster paper. Acceptance rate 40%.
67. Tissue engineered constructs: connectivity study for three dimensional two-phase structures, with C. Gomez, M.F. Demirci, A. Shokoufandeh, W. Sun, *Proceedings of the IEEE 30th Annual Northeast Bioengineering Conference*, April 17-18, 2004, pages 132-133.
68. A Secure Wireless Agent-based Testbed, with Gustave Anderson, Leonardo Urbano, Gaurav Naik, David Dorsey, Andrew Mroczkowski, Donovan Artz, Nicholas Morizio, Andrew Burnheimer, Kris Malfettone, Dan Lapadat, Evan Sultanik, Saturnino Garcia, Max Peysakhov and Moshe Kam. *Second IEEE International Information Assurance Workshop*, April 8th-9th, 2004, pages 19–32. Acceptance rate 39%.
69. Multi-Resolution Modeling in Collaborative Design, with Taesong Kim, Christopher D. Cera, and Jung Hyun Han. *The Eighteenth International Symposium on Computer and Information Sciences (ISCIS XVIII)*, Springer-Verlag, Lecture Notes in Computer Science. November 3-5, 2003, Antalya, Turkey. Acceptance rate 33%.
70. DAMLJessKB: A Tool for Reasoning with the Semantic Web, with Joseph Kopena. Accepted to the *2nd International Semantic Web Conference (ISWC2003)*. 20-23 October 2003, Sanibel Island, Florida, USA. 24% conference acceptance rate (205 submissions, 49 accepted papers).
71. Design Repositories for the Semantic Web with Description-Logic Enabled Services, with Joseph Kopena. *Semantic Web and Databases Workshop*. Co-located with VLDB 2003 Berlin, Germany September 7-8, 2003. 27 papers accepted out of 70 submissions (38% acceptance rate).

72. Hierarchical Role-Based Viewing for Secure Collaborative CAD, with Christopher D. Cera, Taesong Kim and JungHyun Han. *ASME Design Engineering Technical Conferences, 23d Computers and Information in Engineering Conference*, DETC-2003/CIE-48277, Chicago, Illinois, September 2-6, 2003. (Acceptance rate approximately 60%).
73. Extensible Semantics for Representing Electromechanical Assemblies, with Joe Kopena. *ASME Design Engineering Technical Conferences, 23d Computers and Information in Engineering Conference*, DETC-2003/CIE-48233 Chicago, Illinois, September 2-6, 2003. (Acceptance rate approximately 60%).
74. Reeb-Graph Shape Matching for CAD, with Dmitry Bespalov and Ali Shokoufandeh. *ASME Design Engineering Technical Conferences, 23d Computers and Information in Engineering Conference*, DETC-2003/CIE-48194, Chicago, Illinois September 2-6, 2003. (Acceptance rate approximately 60%).
75. Network Meta-Reasoning for Information Assurance in Mobile Agent Systems (poster paper), with Donovan Artz and Maxim Peysakhov. *International Joint Conferences on Artificial Intelligence (IJCAI)*, August 9-15, 2003. Acapulco, MX. pp. 1455-1457. 26% overall conference acceptance rate (papers + posters; over 1200 submitted papers/posters).
76. Secure Mobile Agents on Ad Hoc Wireless Networks, with Evan Sultanik et al, *Innovative Applications of Artificial Intelligence Conference (IAAI)*. August 11-13, 2003. Acapulco, MX. pp. 129-136. Acceptance rate 23%.
77. Scale-space Representation of 3D Models and Topological Matching, with Dmitriy Bespalov, Ali Shokoufandeh and Wei Sun. *Eighth ACM/SIGGRAPH Symposium on Solid Modeling and Applications*, Gershon Elber and Vadim Shapiro, Editors. June 16-20, 2003. Seattle, WA. pp 208-215. 25 full papers, 15 posters, 4 emerging results papers out of 80 submitted papers.
78. Representation of Porous Artifacts for Bio-Medical Applications, with Craig Schroeder, Ali Shokoufandeh and Wei Sun. *Eighth ACM/SIGGRAPH Symposium on Solid Modeling and Applications*, Gershon Elber and Vadim Shapiro, Editors. June 16-20, 2003. Seattle, WA. pp. 254-257. (Emerging Concepts paper), 25 full papers, 15 posters, 4 emerging results papers out of 80 submitted papers.
79. Automated Learning of Model Classifications, with Cheuk Yiu Ip, Leonard Sieger and Ali Shokoufandeh. *Eighth ACM/SIGGRAPH Symposium on Solid Modeling and Applications*, Gershon Elber and Vadim Shapiro, Editors. June 16-20, 2003. Seattle, WA. pp. 322-327. (Poster Paper). 25 full papers, 15 posters, 4 emerging results papers out of 80 submitted papers.
80. Asymptotic homogenization based process for characterization of tissue scaffold, with Z. Fang, C. Yan, W. Sun and A. Shokoufandeh, *Proceedings of 29th Annual IEEE Bioengineering Conference*, 22-23 March 2003, New Jersey Institute of Technology, pp. 227-228.
81. Representation and design of heterogeneous tissue structures, with W. Sun and A. Shokoufandeh, *2002 Winter Biotechnology Conference in Tissue Engineering (CSHL)*, Cold Spring, NY, November 22, 2002.
82. Using Shape Distributions to Compare Solid Models, with Cheuk Yiu Ip, Daniel Lapadat and Leonard Sieger. *Seventh ACM/SIGGRAPH Symposium on Solid Modeling and Applications*, Hans-Peter Seidel, Editor. June 17-21, 2002. Saarbrücken, Germany. pp. 273-280. (Poster paper). 20 papers, 15 posters out of 100 submissions.
83. Collaborative Sketching of NURBS Surfaces, with Cheryl Foster and Yuriy Shapirshteyn. *ASME Design Engineering Technical Conferences, 21st Computers and Information in Engineering Conference*. September 9-12, 2001. Pittsburgh, PA. DETC2001/CIE-21256.
84. Integrating Design Process Knowledge with CAD Models, with Erik E. Hayes. *ASME Design Engineering Technical Conferences, 21st Computers and Information in Engineering Conference*. September 9-12, 2001. Pittsburgh, PA. DETC2001/CIE-21247.
85. Transformation Invariant Similarity Assessment of Solid Models, with David McWherter, Mitchell Peabody and Ali Shokoufandeh. *ASME Design Engineering Technical Conferences, Sixth Design for Manufacturing Conference*. David O. Kazmer, Editor. September 9-12, 2001. Pittsburgh, PA. DETC2001/DFM-21191.

86. A Student Project in Software Evaluation, with Michael F. Czajkowski, Cheryl V. Foster, Thomas T. Hewett, Joseph A. Casacio, and H. A. Sperber. *Proceedings of the 6th Annual Conference on Integrating Technology into Computer Science Education*. ACM SIGCSE and SIGCUE. ACM Press. June 25-28, 2001. Canterbury, UK. ACM Press, New York. ISSN 0097-8418. pp. 13-16.
87. Representation and Capture of Temporal Change in Solid Models, with Erik E. Hayes and Jonathan Sevy. *Sixth ACM/SIGGRAPH Symposium on Solid Modeling and Applications*, Deba Dutta and Hans-Peter Seidel, Editors. June 4-8, 2001. Ann Arbor, MI. pp. 317-318. (Poster paper). 30 papers and 15 posters accepted out of approximately 100 papers.
88. Techniques for Indexing and Clustering of Solid Models, with David McWherter, Mitchell Peabody and Ali Shokoufandeh. *Sixth ACM/SIGGRAPH Symposium on Solid Modeling and Applications*, Deba Dutta and Hans-Peter Seidel, Editors. June 4-8, 2001. Ann Arbor, MI. pp. 78-87. 30 papers and 15 posters accepted out of approximately 100 papers.
89. Machining Feature-Based Comparisons of Mechanical Parts, with Vincent Cicirello. *International Conference on Shape Modeling and Applications*, Sponsored by ACM SIGGRAPH, the Computer Graphics Society and EUROGRAPHICS. IEEE Computer Society Press. Genoa, Italy, May 7-11, 2001. pp. 176-185. 30 papers where accepted of 67 submitted.
90. Software Architecture to Facilitate Automated Message Recording and Context Annotation, with Erik E. Hayes, David McWherter, Jonathan Sevy and Vera Zaychik. *Network Intelligence: Internet-Based Manufacturing, Proceedings of the International Society for Optical Engineering (SPIE), Volume 4208*. Boston, MA. November 5-8, 2000.
91. A Collaborative Design Studio, with Jonathan Sevy and Vera Zaychik. *Co-Designing 2000 Conference* (Adjunct Proceedings), Stephen A. R. Scrivener, Linden J. Ball and Andree Woodcock, Editors. Coventry University, U.K., 11-13 September, 2000. ISBN 0-905949-93-5. pp. 117-121.
92. Building Internet-Based Virtual Environments Collaborative Design, with Yuriy Shapirshteyn, Cheryl V. Foster, Jon E. John and Lisa P. Anthony. *Co-Designing 2000 Conference*, Stephen A. R. Scrivener, Linden J. Ball and Andree Woodcock, Editors. Coventry University, U.K., 11-13 September, 2000. pp. 117-122.
93. A Survey on Design Rationale: Representation, Capture and Retrieval, with Xiaochun Hu, Jun Pang, Yan Pang, Michael Atwood and Wei Sun *ASME Design Engineering Technical Conferences, Fifth Design for Manufacturing Conference*. Michael Yang, Editor. September 10-14, 2000. Baltimore, Maryland. DETC2000/DFM-14008.
94. Applying Case-Based Reasoning to Mechanical Bearing Design, with Xiaoli Qin. *ASME Design Engineering Technical Conferences, Fifth Design for Manufacturing Conference*. Michael Yang, Editor. September 10-14, 2000. Baltimore, Maryland. DETC2000/DFM-14011.
95. Using Graph-Grammars and Genetic Algorithms to Represent and Evolve Lego Assemblies, with Maxim Peysakhov and Vlada Galinskaya. *Genetic and Evolutionary Computation Conference (GECCO 2000)*. Las Vegas, NV. Late breaking results paper. pp. 269-275. Morgan Kaufmann Publishers, San Francisco, CA
96. Genetic Algorithms for Optimization of Lego Assemblies, with Maxim Peysakhov and Vlada Galinskaya. *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO 2000)*. Darrell Whitley, David Goldberg, Erick Cantu-Paz, Lee Spector, Ian Parmee, Hans-Georg Beyer, Editors. July 10-12, Las Vegas, NV. (Poster paper). p. 968. Morgan Kaufmann Publishers, San Francisco, CA
97. Evaluating Collaborative Engineering Environments, with Vera Zaychik, Thomas Hewett and Jon Sevy. *IEEE Eighth International Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprises (WET ICE 2000)* Workshop on Evaluation of Collaborative Enterprises, June 14-16, 2000, National Institute of Standards and Technology Gaithersburg, Maryland, USA. pp. 118-124.
98. Populating and Interacting with Large Design Knowledge-Bases. *Proceedings of the Fourth IFIP WG 5.2 Workshop on Knowledge Intensive CAD (KIC-4)*, Umberto Cugini and Michael Wozny, Editors. International Federation for Information Processing (IFIP) Working Group 5.2. May 22-24, 2000. The University of Parma, Parma, Italy. (Extended Abstract). pp. 38-39.

99. Issues in Building and Evaluating Networked Engineering Environments, with Vera Zaychik, Thomas T. Hewett and Jonathan Sevy *Proceedings of the Fourth IFIP WG 5.2 Workshop on Knowledge Intensive CAD (KIC-4)*, Umberto Cugini and Michael Wozny, Editors. International Federation for Information Processing (IFIP) Working Group 5.2. May 22-24, 2000. The University of Parma, Parma, Italy. pp. 259-265.
100. Conceptual Design for Assembly, with Santiago Lombeyda. *ASME Design Engineering Technical Conferences, Fourth Design for Manufacturing Conference*. DETC99/DFM-8943. Robert Sturges, Editor. September 12-15, 1999. Las Vegas, Nevada.
101. Digital Library Support for Engineering Design and Manufacturing. *ASME Design Engineering Technical Conferences, 19th Computers in Engineering Conference*. DETC99/CIE-9080. Special Track on Internet-based Design and Manufacturing. September 12-15, 1999. Las Vegas, Nevada.
102. Conceptual Design for Mechatronic Assemblies (Extended Abstract), with Santiago Lombeyda. *Fifth ACM/SIGGRAPH Symposium on Solid Modeling and Applications*. David Anderson and Wim Bronsvoort, Editors. June 8-11, 1999. Ann Arbor, MI. pp. 320-321.
103. Resolving Non-Uniqueness in Design Feature Histories, with Vincent A. Cicirello. *Fifth ACM/SIGGRAPH Symposium on Solid Modeling and Applications*. David Anderson and Wim Bronsvoort, Editors. June 8-11, 1999. Ann Arbor, MI. pp. 76-84.
104. 1997 Special Session on Feature Recognition, with JungHun Han and David Rosen. *ASME Design Engineering Technical Conferences, Computers in Engineering Conference*, September, 1997. Sacramento, CA. 97-DETC:CIE-4423.
105. Hint-based Feature Recognition, with JungHun Han and Steve Brooks. *ASME Design Engineering Technical Conferences, Computers in Engineering Conference*, September, 1997. Sacramento, CA. 97-DETC:CIE-4485.
106. Feature-based Similarity Assessment of Solid Models, with Alexei Elinson and Dana S. Nau. *Fourth ACM/SIGGRAPH Symposium on Solid Modeling and Applications*. Christoph Hoffman and Wim Bronsvoort, Editors. May 14-16, 1997. pp. 297-310. Atlanta, GA.
107. Research Issues in Network-Centric Computer-Aided Design. The *1997 TEAM-CAD Workshop*. pp. 3-10. May 12-13, Atlanta, GA. A longer version of this article is available as NIST Interagency Report #5949.
108. Common Libraries for Networked Engineering Applications, with Robert Tuttle, Gordon Little, Jonathan Corney and D. E. R. Clark. **EUROPIA97**, *Proceedings of the Sixth International Conference on Applications/Implications of Computer Networking in Architecture, Construction, Design, Civil Engineering, and Urban Planning*. Edinburgh, Scotland. April 2-3, 1997. pp. 1-11. ISBN 2-909285-07-3.
109. What are Feature Interactions?, with Michael Pratt. *ASME Design Engineering Technical Conferences, Design for Manufacturability Symposium*, August 18-22, 1996. Irvine, CA. 96-DETC:DFM-1285.
110. AI Planning versus Manufacturing-Operation Planning: A Case Study, with Satyandra K. Gupta and Dana S. Nau. *14th International Joint Conference on Artificial Intelligence (IJCAI)*, August 19-26, 1995. Montreal, Canada. pp. 1670-1676. Also available as CS-TR-3397, UMIACS-TR-95-3, ISR-TR-95-4. (22% acceptance rate)
111. Current Trends and Future Challenges in Automated Manufacturability Analysis, with Diganta Das, Satyandra K. Gupta, and Dana S. Nau. *ASME Design Engineering Technical Conferences, Computers in Engineering Conference*, September 18-21, 1995. Boston, MA. pp. 655-666. Also available as ISR-TR-95-16 and URL <ftp://ftp.cs.umd.edu/pub/cim/papers/CIE95.ps>.
112. Interactive Feature Recognition Using Multiprocessor Methods, with Satyandra K. Gupta and Dana S. Nau. *ASME Design Engineering Technical Conferences, Design for Manufacturability Symposium*, September 18-21, 1995. Boston, MA. pp. 927-938. Also available as CS-TR-3375, UMIACS-TR-94-126, ISR-TR-94-82, and URL [ftp://ftp.cs.umd.edu/pub/cim/papers/ISR\\_TR\\_94-82.ps](ftp://ftp.cs.umd.edu/pub/cim/papers/ISR_TR_94-82.ps).

113. Manufacturing Feature Instances: Which Ones to Recognize?, with Satyandra K. Gupta and Dana S. Nau. *Third ACM/IEEE Symposium on Solid Modeling and Applications*, May 16-19, 1995. Salt Lake City, Utah. pp. 141-152. Also available as NIST IR #5655, CS-TR-3376, UMIACS-TR-94-127, ISR-TR-94-81, and URL [ftp://ftp.cs.umd.edu/pub/cim/papers/ISR\\_TR\\_94-81.ps](ftp://ftp.cs.umd.edu/pub/cim/papers/ISR_TR_94-81.ps).
114. Manufacturing-Operation Planning versus AI Planning, with Satyandra K. Gupta and Dana S. Nau. *AAAI Spring Symposium*, March 1995, Stanford, CA. American Association for Artificial Intelligence. Also available as URL [ftp://ftp.cs.umd.edu/pub/cim/papers/AAAI\\_Spring95.ps](ftp://ftp.cs.umd.edu/pub/cim/papers/AAAI_Spring95.ps).
115. Feature Recognition for Manufacturability Analysis, with Satyandra K. Gupta and Dana S. Nau. *ASME Design Engineering Technical Conferences, Computers in Engineering Conference*, September 13-16, 1994. Minneapolis, MN. pp. 93-104. Also available as ISR-TR-94-10 and URL <ftp://ftp.cs.umd.edu/pub/cim/papers/CIE94.ps>.
116. Development of Machining Alternatives Based on MRSEVs, with Satyandra K. Gupta, Dana S. Nau, Thomas R. Kramer, and Guangming Zhang. *ASME Design Engineering Technical Conferences, Computers in Engineering Conference*, August 1993. pp. 47-57. Also available as URL <ftp://ftp.cs.umd.edu/pub/cim/papers/CIE93.ps>.
117. Building a General Approach to Feature Recognition of Material Removal Shape Element Volumes (MRSEVs), with Dana S. Nau. *Second ACM/IEEE Symposium on Solid Modeling and Applications*, May 19-21, 1993. Montreal, Canada. pp. 293-302.

### iii. Other Articles, Technical Reports, Letters , Etc.

1. TITAN: Adapting Agent Software Architectures for Network-Centric Command and Control, with Israel Mayk, Todd Urness, Duc N. Nguyen, and Christopher T. Cannon. CERDEC Mini-Army Science Symposium, September 21, 2010.
2. Scenario-Driven Evaluation of Network-Centric Command and Control Systems, with Christopher T. Cannon, Dara M. Kusic, Duc N. Nguyen, and Israel Mayk. CERDEC Mini-Army Science Symposium, September 21, 2010.
3. Low-Cost Localization for Educational Robotic Platforms via an External Fixed-Position Camera, Drew Houston and William C. Regli, 2008 AAAI Workshop on AI in Education. AAAI 2008, Chicago, IL.
4. A Cyber-Infrastructure for Supporting K-12 Engineering Education through Robotics, William Mongan and William Regli, 2008 AAAI Workshop on AI in Education. AAAI 2008, Chicago, IL.
5. Facilitating Communication for First Responders Using Dynamic Distributed Constraint Optimization, Robert N. Lass, William C. Regli, Alan Kaplan, Michael Mitkus, and James Sim. 2008 IEEE International Conference on Technologies for Homeland Security, 12/13 May, 2008, Boston, MA.
6. A Decentralized Approach to the Art Gallery Problem, Robert N. Lass, Michael J. Grauer, Evan A. Sultanik, and William C. Regli. 17th Fall Conference on Computational Geometry (FCGW 2007), Hawthorne, NY 9-10 November 2007.
7. "Archiving Engineering Design Process, History, and Rationale", with Joseph B. Kopena, David Wilkie, and Joshua Shaffer, in *Proceedings of Archiving 2006*, May 23-26, 2005, Ottawa, Canada,
8. Manufacturing Processes Recognition of Machined Mechanical Parts using SVMs, with Cheuk Yiu Ip. *Proceedings of the Twentieth National Conference on Artificial Intelligence (AAAI 2005)*, July 9-13, 2005, Pittsburgh, Pennsylvania. AAAI Press. Student Paper.
9. A Case Study of Swept Volume Representation of Tissue Scaffolds, with Jie li and Wei Sun. 31st Annual Northeast Bioengineering Conference of the IEEE Engineering in Medicine and Biology. Hoboken, NJ. April 2-3, 2005.

10. "Ecologically Inspired Agent Control Model", with Vince Cicirello and Maxim Peysakhov. *Proceedings of the Third NASA-Goddard/IEEE Workshop on Formal Approaches to Agent-Based Systems "FAABS III"*, April 26-27, 2004. Goddard Space Flight Center, Greenbelt, Maryland, USA.
11. "Feature Representation and Design of Heterogeneous Structures: Porosity Representation, Feature Decomposition, and Asymptotic Homogenization," C. Schroeder, D. Bespalov, Z. Fang, A. Shokoufandeh, W. Regli, E. Lutz, W. Sun. NSF Design Grantees Meeting, 2004.
12. "Representation and Design of Heterogeneous Structures: Connectivity Study for 3D Tissue Engineered Constructs," C. Gomez, M. F. Demirci, A. Shokoufandeh, W. Regli, W. Sun. NSF Design Grantees Meeting, 2004.
13. Stochastic geometry for bio-medical CAD, DIMACS Workshop on Computer Aided Design and Manufacturing, October 7-9, 2003.
14. Scale-space representations and their applications to 3D matching of solid models, DIMACS Workshop on Computer Aided Design and Manufacturing, October 7-9, 2003.
15. How to pick the right shape matching algorithm for your CAD data, DIMACS Workshop on Computer Aided Design and Manufacturing, October 7-9, 2003.
16. Applications of computational topology of swept volumes, DIMACS Workshop on Computer Aided Design and Manufacturing, October 7-9, 2003.
17. The National Design Repository: A Status Report, with Cheryl Foster, Erik Hayes, Cheuk Yiu Ip, David McWherter, Mitchell Peabody, Yuriy Shapirsteyn and Vera Zaychik. *International Joint Conferences on Artificial Intelligence (IJCAI) AAAI/SIGMAN Workshop on AI in Manufacturing Systems*, August 5, 2001. Daniel M. Gaines, Editor. Seattle, WA. pp. 94-96.
18. Discovering Knowledge in Design and Manufacturing Repositories, with Cheryl Foster, Erik Hayes, David McWherter, Mitchell Peabody, Yuriy Shapirsteyn and Lisa Anthony. *International Joint Conferences on Artificial Intelligence (IJCAI) Workshop on Knowledge Discovery from Distributed, Heterogeneous, Dynamic, Autonomous Data Sources*, August 6, 2001. Vasant Honavar, Editor. Seattle, WA. pp. 40-42.
19. CUP: A Computer-Aided Conceptual Design Environment for Assembly Modeling, with Lisa P. Anthony, Jon E. John and Santiago V. Lombeyda. Drexel University Computer Science Technical Report, 2001.
20. Clustering Techniques for Databases of CAD Models, with David McWherter and Mitchell Peabody and Ali Shokoufandeh. Drexel University Computer Science Technical Report, 2001.
21. Clustering Solid Models for Database Storage, with David McWherter, Mitchell Peabody and Ali Shokoufandeh. Drexel University Computer Science Technical Report, 2001.
22. An Approach to Indexing Databases of Graphs, with David McWherter, Mitchell Peabody and Ali Shokoufandeh. Drexel University Computer Science Technical Report, 2001.
23. An Approach to Indexing Databases of Solid Models, with David McWherter, Mitchell Peabody and Ali Shokoufandeh. Drexel University Computer Science Technical Report, 2001.
24. The Engineering Design Repositories Project, with Lisa Anthony, Vincent Cicirello, Jon John, Xiaoli Qin, Yuriy Shapirshteyn and Vera Zaychik. *National Science Foundation Design and Manufacturing Grantees Conference*. January 3-6, 2000. Vancouver, BC. Canada.
25. Design Classification and Hybrid Variant-Generative Process Planning: Status Report, with Jeffrey W. Herrmann and Dana S. Nau. *National Science Foundation Design and Manufacturing Grantees Conference*. January 3-6, 2000. Vancouver, BC. Canada.
26. Building GeoPlex Gate Proxies on GUNet, with Yuriy Shapirshteyn and Vera Zaychik. AT&T Labs, Internet Platforms Technology Organization, GeoPlex University Network (GUNet) Technical Report. <http://www.gunet.net>. August 1999.

27. GUNet Applications: Active User and Active Service Registry, with Yuriy Shapirshteyn and Vera Zaychik. AT&T Labs, Internet Platforms Technology Organization, GeoPlex University Network (GUNet) Technical Report. <http://www.gunet.net>. August 1999.
28. GUNet Applications: The HelloWorld Service and Client Peerlets, with Yuriy Shapirshteyn and Vera Zaychik. AT&T Labs, Internet Platforms Technology Organization, GeoPlex University Network (GUNet) Technical Report. <http://www.gunet.net>. August 1999.
29. GUNet Application: A Network Bandwidth Flow Checker, with Yuriy Shapirshteyn and Vera Zaychik. AT&T Labs, Internet Platforms Technology Organization, GeoPlex University Network (GUNet) Technical Report. <http://www.gunet.net>. August 1999.
30. HCI Issues in Collaborative and Networked Engineering Design, with Thomas Hewett, *ACM Conference on Human-Computer Interaction, Workshop on HCI in Application Domains*. Editor: Guy Boy. May 17, 1999. Pittsburgh, PA.
31. Dvorak vs. QWERTY, Letters to the Editor, *The Economist*, May 8th — May 14th, 1999. p. 6.
32. KDI: Networked Engineering. *National Science Foundation HCI Grantees Workshop*. Edited by Kay Stanney and Gary Strong. February 21-23, 1999. Orlando, FL. pp. 202-204.
33. CAREER: Geometric Reasoning for Large Engineering Knowledge-Bases. *National Science Foundation Design and Manufacturing Grantees Conference*. Edited by Stan Settles. January 4-8, 1999. Long Beach, CA.
34. KDI: Networked Engineering, with Thomas Hewett, Pradeep Khosla, Ramayya Krishnan, Stephen Lu and Berok Khoshnevis. *National Science Foundation Design and Manufacturing Grantees Conference*. Edited by Stan Settles. January 4-8, 1999. Long Beach, CA.
35. Design Classification for Hybrid Variant/Generative Process Planning, with Dana S. Nau and Jeffrey Herrmann. *National Science Foundation Design and Manufacturing Grantees Conference*. January 5-8, 1998. Monterey, Mexico.
36. Classification and Retrieval of CAD Models using Feature Graphs, with Alexei Elinson and Dana S. Nau. *National Science Foundation Design and Manufacturing Grantees Conference*, pp 143-144. January 7-10, 1997. Seattle, WA.
37. An Overview of the NIST Repository for Design, Process Planning, and Assembly, with Dan Gaines. *National Science Foundation Design and Manufacturing Grantees Conference*. January 7-10, 1997. Seattle, WA. pp 673-674.
38. The Tax Liability of “Chad’s House of Croissant’s/Car Talk” T-Shirts (Letter), Car Talk, National Public Radio, December 14, 1996.
39. An Overview of the NIST Design, Planning, and Assembly Repository, with Daniel Gaines. June 1996. Also available through <http://www.parts.nist.gov/parts> and as NIST-IR #5982.
40. MicroStation Development Language (MDL) as Enabling Technology for Network-Centric CAD. March 1996.
41. Computer Science in Manufacturing: An Introduction, with Michael Wozny. *The Communications of the ACM*. Volume 39, Number 2, pp. 32-33, February 1996. Special issue on *Computer Science in Manufacturing*.
42. Contribution to Virtual Manufacturing Background Research—Phase II, with Edward Lin, Ioannis Minis, and Dana Nau. January, 1996. Report for Air Force Manufacturing Technology (ManTech) Contract F33615-92-D-5812. Also available as <http://www.isr.umd.edu/Labs/CIM/virtual.html>.
43. An Assessment of Virtual Manufacturing Technologies, with Edward Lin, Ioannis Minis, and Dana Nau. *National Science Foundation Design and Manufacturing Systems Conference*. Albuquerque, NM. January 2-6, 1996.

44. IMACS (Interactive Manufacturability Analysis and Critiquing System), with Satyandra K. Gupta, Dana S. Nau, and Guangming Zhang. *National Science Foundation Design and Manufacturing Systems Conference*. Albuquerque, NM. January 2-6, 1996.
45. Automating Redesign of Electro-Mechanical Assemblies, with Dana Nau and James Hendler. *International Joint Conferences on Artificial Intelligence (IJCAI) Workshop on Intelligent Manufacturing Systems*, August 18, 1995. Montreal, Canada. pp. 289-309.
46. Contribution to Virtual Manufacturing Background Research, with Edward Lin, Ioannis Minis, and Dana Nau. May, 1995. Report for Air Force Manufacturing Technology (ManTech) Contract F33615-92-D-5812. Also available as <http://www.isr.umd.edu/Labs/CIM/virtual.html>.
47. Systematically Analyzing the Manufacturability of Machined Parts, with Satyandra K. Gupta and Dana S. Nau. *National Science Foundation Design and Manufacturing Systems Conference*, January, 1995.
48. The Future of the WWW: Cultivating Policies that Make Governments and Corporations Active Participants, with Brian J. Regli. The Fletcher School, Tufts University, April 1994.
49. Recognition of Volumetric Features from CAD Models: A New Approach, with Dana S. Nau. *National Science Foundation Design and Manufacturing Systems Conference*, Boston, MA, January, 1994, pp. 745-746.
50. Generation and Evaluation of Machining Alternatives based on MRSEVs, Dana S. Nau, Satyandra K. Gupta, Thomas R. Kramer, and Guangming Zhang, *AAAI SIGMAN Workshop on Intelligent Manufacturing Technology*, July 1993, American Association for Artificial Intelligence. Also available as URL [ftp://ftp.cs.umd.edu/pub/cim/papers/AAAI93\\_SIGMAN.ps](ftp://ftp.cs.umd.edu/pub/cim/papers/AAAI93_SIGMAN.ps).
51. An Inquiry to Mr. Letterman, Viewer Mail, Late Night with David Letterman, National Broadcasting Company (NBC), June 4, 1993.
52. Multimedia E-Mail for Starting the Development of a National Manufacturing Infrastructure, The National Institute of Standards and Technology, September 1992.
53. A Survey of Automated Feature Recognition Techniques, The University of Maryland, Institute for Systems Research, SRC TR92-18, January 1992.

## **F. Films, Tapes, Photographs, etc.**

N/A.

## **G. Exhibits, Performances, Demonstrations, and other Creative Activities**

1. Summer 2011, Ft. Dix C4ISR "On the Move" Testbed. The TITAN Battle-Command Warfighter Interface.
2. September-October 2010, Battle Command Laboratory, Ft. Dix C4ISR "On the Move" Testbed. The TITAN Battle-Command Warfighter Interface.
3. October 2009, Battle Command Laboratory, Ft. Leavenworth, KS. The TITAN Battle-Command Warfighter Interface.
4. AAAI 2008, Long SWAT Video.
5. AAAI 2008, Short SWAT Video.
6. AAAI 2008, HEAT Video.
7. AAAI 2008 Demonstrations Program: SWAT and EvacOp.
8. DeCoplis, AAMAS 2008.

9. Disaster Evacuation Support, Christopher J. Carpenter, Christopher J. Dugan, Joseph B. Kopena, Robert N. Lass, Duc N. Nguyen, Pragnesh Jay Modi, Evan A. Sultanik, William C. Regli (Demonstration) Sixth International Conference on Autonomous Agents and Multi-Agent Systems (AAMAS 2007) 14-18 May 2007, Honolulu, HI.
10. "Simulation and C2 Information Systems Connectivity Experimentation Program (SINCE)." U.S. Army, CERDEC, C4ISR "On the Move" Testbed, Ft. Dix, NJ, July 27-28 and August 8-11, 2006.
11. "SWAT: A Secure Wireless Agent Testbed." IEEE/AFCEA Military Communications Conference (MILCOM 2005), October 17–21, 2005, Atlantic City, NJ, USA.
12. The AI Technologies of the Philadelphia Area Urban Wireless Network Testbed, Gustave Anderson, Andrew Burnheimer, Vincent Cicirello, David Dorsey, Chris Dugan, Iris Howley, Moshe Kam, Joseph Kopena, Rob Lass, Kris Malfettone, Andy Mroczkowski, Gaurav Naik, Max Peysakhov, Brian Pyles, William Regli, Evan Sultanik, James Thiel, Kyle Usbeck, Dan Venutolo, and Marc Winners, AAI Intelligent Systems Demonstration Program, Pittsburgh, PA, July, 2005.
13. "SWAT: A Secure Wireless Agent Testbed," United States Coast Guard, Regional Security Planning Meeting, Philadelphia, PA, June 6, 2005.
14. "SWAT: A Secure Wireless Agent Testbed," DoD Joint Wireless Working Group (WWG) and NSA Secure Mobility Forum, Atlantic City Hilton, Atlantic City, New Jersey. December 8, 2004.
15. "SWAT: A Secure Wireless Agent Testbed," The Network Centric Operations Symposium, Atlantic City Convention Center, Atlantic City, New Jersey, September 20-23 2004.
16. "SWAT: A Secure Wireless Agent Testbed," AAI Intelligent Systems Demonstration Program, San Jose, July-August, 2004.
17. "SWAT: A Secure Wireless Agent Testbed," AAMAS Demonstration Program, NYC, July 2004
18. "SWAT: A Secure Wireless Agent Testbed," International Conference of Automated Planning and Scheduling (ICAPS), Demonstration Program, Whistler, BC, June 2004.
19. "SWAT: A Secure Wireless Agent Testbed," CECOM/RDEC, June 23, 2004 Demo.
20. "SWAT: A Secure Wireless Agent Testbed," CECOM/RDEC, June 3, 2004 Demo.
21. "SWAT: A Secure Wireless Agent Testbed," 5th IEEE Workshop on Mobile Computing Systems & Applications, October 9-10, Monterey, California, USA. See demonstrations link under <http://wmc2003.stanford.edu/>.
22. "SWAT: A Secure Wireless Agent Testbed," ACM MobiCom 2003, the Ninth Annual International Conference on Mobile Computing and Networking, September 14-19, 2003, San Diego, California. Sponsored by ACM SIGMOBILE.
23. "SWAT: A Secure Wireless Agent Testbed," CECOM/RDEC, April 30, 2003 Demo.
24. "Networked Environments for Chem/Bio Terror Response," DARPA *Next Generation Internet (NGI) Initiative*, joint with SAIC. August 1999.

## H. Original Designs, Plans, Inventions, and Patents

Date	Description
2010	A Method for Distributively Solving Connectivity Problems with Applications in Power Management of Wireless Sensor Networks Provisional Patent #??? Drexel University File #???
2010-06-20	Method for Comparing Solid Models U.S. Patent #7,761,265; provisional U.S. Patent #10/430,046 Drexel University File #02-0446D, filed in 2002
2009-12-29	Automated Learning of Model Classifications

- U.S. Patent #7,639,868; provisional U.S. Patent #10/869,061 filed 2004-06-16  
Drexel University File #02-459D
- 2006 Multi-Scale Segmentation and Partial Matching of 3D Models  
U.S. Patent #7,889,914  
Drexel University File #05-0593D
- 2005 A method for secure wireless communications  
Provisional U.S. Patent #11/025,314 (withdrawn 2010)
- 2000 **The National Design Repository**  
<http://www.designrepository.org>.
- 1995 **The Internet Ski Map Server<sup>tm</sup>**  
The University of Maryland at College Park Invention Disclosure IS-95-069.  
<http://www.skimaps.com>.

## I. Research Contracts, Grants and Donations

Total<sup>2</sup> grant and contract award activity as (PI, co-PI or Senior Personnel) since joining Drexel University on 07/01/97 is in excess of \$76,093,181, of which \$11,802,134 is as Principal Investigator<sup>3</sup>. These grants and contracts funded \$20,972,369 in activities at Drexel University.

### 10/2011-03/2016

Reagan W Moore (PI), Jonathan L Goodall, John A Orcutt, Arcot K Rajasekar, William C Regli  
“DataNet Federation Consortium,” NSF 07-601, OCI-0940841, National Science Foundation, Office of Cyber-Infrastructure. \$7,999,998 (est); Drexel Portion, \$500,000 (est).

### 05/2011

William Regli (PI), Ed Celiano, Paul Diefenbach  
“Virtual Reality Studio,” Government furnished equipment (GFE) donation, US Army-CERDEC, Command and Control Directorate, Ft. Monmouth, NJ. Commercial value \$835,561.

### 01/2011-12/2011

“Overlays for Group Communications on Heterogeneous Networks—Year 1,” U.S. Naval Research Laboratories, Networks and Communication Systems, Information Technology Division, Code 5520. \$250,000.

### 01/2011-06/2011

Robert Wray (PI), William Regli, Joseph Kopena  
“CODESMART,” U.S. Army, CERDEC, S&TCD, NetOps Branch, SBIR Phase I A09-150. Total program funding, \$100,000 to SOAR Technologies; Drexel portion, \$22,000.

### 09/2010-03/2011

James Sim (PI), Alan Kaplan, Ilya Braude, and William Regli  
“Drakontas NetViz: A Human-Centered Network Visualizer,” U.S. Army, CERDEC, S&TCD, NetOps Branch, SBIR Phase I A09-150. Total program funding, \$100,000.

### 07/2010-07/2015

Youngmoo Kim (PI), Yury Gogotsi, William Regli, Dennis Hong (Virginia Tech), Stefan Schaal (University of Southern California)

“MRI-R2: Development of Common Platform for Unifying Humanoids Research,” a partnership with Carnegie Mellon University, the Massachusetts Institute of Technology, Ohio State University, the University of Pennsylvania, Purdue University, University of Southern California and Virginia Tech under the National Science Foundation Major Research Infrastructure—Recovery & Reinvestment (MRI-R2) Grant CNS-0960061, \$5,999,997.

### 6/2010-6/2011.

William Regli (PI)

<sup>2</sup>Does not include “in kind” contributions, GFE or donations.

<sup>3</sup>For the ACIN “SWAT” Program, rather than create separate accounting structures for CS and ECE student pools, PI roles and credit were split between William Regli and Moshe Kam. Hence, these projects are each counted at 50%.

“Groupwise Communications to the Tactical Edge—Phase III,” Subaward under DAAB07-01-9-L504 by the United States Navy, Naval Research Laboratories, and the OSD Joint Networked Communications Capabilities Program (NCCP). \$150,000.

**6/2010-5/2012.**

William Regli (PI), Kapil Dandekar, Spiro Mancoridis, Gaurav Naik  
“NEER-IP: A Network Emulation Environment for Research In-the-loop,” United States Army Research Office, FY 2010 Defense University Research Instrumentation Program (DURIP) (AFOSR-BAA-2009-F), Grant #57654-NS-RIP, Contract #W911NF-10-1-0249, \$150,000.

**10/2009-9/2010**

“Bringing New Communications Capabilities to Law Enforcement: Communications Technologies Center of Excellence (COE): Year III”, Office of Justice Programs, United States Department of Justice (DoJ) (as Drakontas LLC), Contract #2007-IJ-CX-K013, \$2,500,000.

**1/2010-6/2011.**

“Cyber Measurement and Analysis Center (CMAC),” National Cyber-Range: Phase II, DARPA/Strategic Technology Office, BAA08-43. Johns Hopkins University Applied Physics Laboratory (APL), Prime Contractor. \$95,000 (as Drakontas LLC, total program size approximately \$24,777,235). Contract #HR0011-10-C-0039.

**4/2010-3/2011.**

Thomas Hewett (PI) and William Regli  
“The Human-Centered Network Visualizer”U.S. Army, CECOM, Space and Terrestrial Communications Directorate (STCD), NetOps Branch, Subaward under DoD contract DAAB07-01-9-L504. \$106,000.

**4/2010-3/2011.**

William Regli (PI)  
“C2MAX: Mobile Situation Awareness” Phase IV, U.S. Army, CECOM, C2D Directorate, Subaward under DoD contract DAAB07-01-9-L504. \$300,000.

**4/2010-3/2011.**

William Regli (PI)  
“Agent-Based Battle Command Phase IV, U.S. Army, CECOM, C2D Directorate, Subaward under DoD contract DAAB07-01-9-L504. \$300,000.

**4/2010-3/2011.**

William Regli (PI), Gaurav Naik (PM), Constantine Katsinis  
“GoldenOrb: SmartPhone NetOps”U.S. Army, CECOM, Intelligence and Information Warfare Directorate (I2WD), Aracnid ATO, Subaward under DoD contract DAAB07-01-9-L504. \$400,000.

**9/2009-8/2012.**

William Regli (PI) and Rachel Greenstadt  
“IRES: U.S.-Czech Network-Centric Intelligent Systems: Drexel and Czech Technical University”, National Science Foundation (NSF), International Research Exchange for Students (IRES), Office of International Science and Engineering, Grant OISE-0930785. \$149,814.

**4/2009-6/2010.**

William Regli (PI)  
“Groupwise Communications to the Tactical Edge—Phase II,” Subaward under DAAB07-01-9-L504 by the United States Navy, Naval Research Laboratories, and the OSD Joint Networked Communications Capabilities Program (NCCP). \$100,000.

**5/2009-4/2010.**

Research Experiences for Undergraduates (REU) Supplement, “Scalable Knowledge-based Middleware for Networked and Mobile Systems”, Collaborative Research between The University of Pennsylvania and Drexel University. National Science Foundation, Division of Computer and Communication Foundations, Grant #CCF-0819845. \$12,000.

**10/2008-9/2009**

“Bringing New Communications Capabilities to Law Enforcement: Communications Technologies Center of Excellence (COE): Year II”, Office of Justice Programs, United States Department of Justice (DoJ) (as Drakontas LLC), Contract #2007-IJ-CX-K013, \$2,500,000.

**6/2008-5/2011.**

Boon Thau Loo (PI), William Regli, Joseph Kopena  
“Scalable Knowledge-based Middleware for Networked and Mobile Systems”, Collaborative Research between The University of Pennsylvania and Drexel University. National Science Foundation, Division of Computer and Communication Foundations, Grant CCF-0819845. Drexel portion, \$193,484.

**6/2008-5/2009.**

William Regli (PI)  
“Groupwise Communications to the Tactical Edge,” Subaward under DAAB07-01-9-L504 by the United States Navy, Naval Research Laboratories, and the OSD Joint Networked Communications Capabilities Program. \$100,000.

**2/2008-10/2008.**

Research Experiences for Undergraduates (REU) Supplement, “Digital Engineering Archives.” Library of Congress National Digital Information Infrastructure and Preservation Program (NDIIPP) through the National Science Foundation (NSF) DIGARCH Program, Grant IIS-0456001, subaward IIS-0824842. \$12,000.

**10/2008-9/2009.**

Jaudelice de Oliveira (PI) and William Regli  
“ConstantEye Seedling,” subcontract to SAIC Advanced Systems and Concepts in support of DARPA IXO. \$74,000.

**10/2008-6/2009.**

Alan Kaplan, Steven Weber (PI), John Walsh, William Regli (as Drakontas)  
“Heterogeneous Network Management: Phase I,” United States Air Force, SBIR AF08-T011, Subcontract to Drakontas LLC. Total Program Funding, \$100,000; Drexel portion, \$55,000.

**4/2009-3/2010.**

William Regli (PI)  
“C2MAX: Mobile Situation Awareness” Phase III, U.S. Army, CECOM, C2D Directorate, Subaward under DoD contract DAAB07-01-9-L504. \$300,000.

**1/2009-12/2010.**

Robert Wray (PI), William Regli  
“Sousa: Composing and Conducting Battle Command Services: PHASE II,” United States Army, CERDEC, SBIR A072-105, Total program funding, \$730,000 to SOAR Technologies; Drexel portion, \$200,000.

**1/2008-12/2009.**

Alan Vayda (PI), William Regli  
“Sousa: Composing and Conducting Battle Command Services: PHASE I,” United States Army, CERDEC, SBIR A072-105. Total program funding, \$100,000 to SOAR Technologies; Drexel portion, \$27,000.

**10/2008-9/2009.**

William Regli (PI), Youngmoo Kim, Kapil Dandekar  
“WiMAX Urban Testbed: Phase II”, in support of the Tactical Services Provider (TSP) Joint Capability Technology Demonstration JCTD, Defense Information Systems Agency (DISA) and Office of the Secretary of Defense (OSD). \$200,000.

**10/2007-9/2008**

“Bringing New Communications Capabilities to Law Enforcement: Communications Technologies Center of Excellence (COE): Year I”, Office of Justice Programs, United States Department of Justice (DoJ), Subcontract to Drakontas LLC, Contract #2007-IJ-CX-K013, \$3,862,743. Drexel portion, \$150,000 (approx).

**6/2007-9/2008.**

William Regli (PI), Kapil Dandekar.

“C2MAX: Evaluation of WiMAX for Lower Battle Command”, U.S. Army, CECOM, C2D Directorate, Subaward under DoD contract DAAB07-01-9-L504. \$200,000.

**6/2007-9/2008.**

William Regli (PI), Kapil Dandekar.

“WiMAX Urban Testbed: Phase I”, in support of the Tactical Services Provider (TSP) Joint Capability Technology Demonstration JCTD, Defense Information Systems Agency (DISA) and Office of the Secretary of Defense (OSD). \$150,000.

**1/2007-12/2008.**

William C. Regli (PI), Nicola Ferrier, S.K. Gupta, Ming Lin, Dinesh Manocha, Michael Piasecki, Vadim Shapiro, Krishnan Suresh.

“CI-TEAM Implementation Project: Collaborative Research: Cyber-Infrastructure for Engineering Informatics Education” Multi-Disciplinary team including Drexel University, the University of Maryland at College Park, the University of Wisconsin at Madison and the University of North Carolina at Chapel Hill. National Science Foundation, Office of Cyber-Infrastructure, Cyber-Infrastructure Teams (CI-Teams) Program, Grant OCI-0636235. \$900,000, (Drexel portion \$225,000).

**1/2007-12/2008.**

Timothy W. Simpson (PI), Kemper Lewis, Robert B. Stone, William C. Regli<sup>4</sup>, Wei Chen, Steven B. Shooter, Janis P. Terpenney, James Durand, Patricia Mead.

“CI-TEAM Implementation Project: Collaborative Research: A National Engineering Dissection Cyber-Collaboratory” a Multi-Disciplinary team including Drexel University, the Pennsylvania State University, the State University of New York at Buffalo, the University of Missouri at Rolla, Norfolk State University, Sweet Briar College, Virginia Polytechnic Institute and State University, Bucknell University and Northwestern University. National Science Foundation, Office of Cyber-Infrastructure, Cyber-Infrastructure Teams (CI-Teams) Program, Grant OCI-0636273. \$900,000, (Drexel portion \$107,921).

**2/2007-10/2007.**

Research Experiences for Undergraduates (REU) Supplement, “Digital Engineering Archives.” Library of Congress National Digital Information Infrastructure and Preservation Program (NDIIPP) through the National Science Foundation (NSF) DIGARCH Program, Grant IIS-0456001, subaward IIS- 0726351. \$12,000.

**10/2006-9/2007.**

Brian J. Regli (PI), James Sim, Moshe Kam, Thomas Hewett, and William Regli.

“Establishing Operational Rules for Law Enforcement and First Responder Tactical Teams Utilizing Ad Hoc Wireless Networks—Phase II,” Drakontas LLC, Prime Contractor for the Office of Justice Programs, United States Department of Justice, Grant 2005-IJ-CX-K004. Award amount \$450,000, (Drexel portion \$80,000).

**12/2006–6/2007 (11/2009)**

“Video Analysis and Content Extraction (VACE)”, Disruptive Technology Office (DTO), Advanced Research and Development Agency (ARDA) BAA 06-01-MT, Fort George G. Meade, MD. PercepTek Robotics, Prime Contractor. Team includes Drexel University, the University of Central Florida and the University of Wyoming. Total award amount, \$4,500,000; Drexel portion \$100,000 (of \$335,918). Contract NBCHC060177 issued by the Department of the Interior at Ft. Huachuca, AZ.

**12/2006–11/2009**

William Regli

“HEAT: Heterogeneous Agent Teams”, US Army Communications Electronics Research Development and Engineering Center (CERDEC), Command and Control of Robotic Entities (C2ORE) Army Technology Objective, SOARTech, Prime Contractor. Drexel portion \$100,000. Part of ROCCIE (Robotic Command and Control Intelligent Enablers) Phase II SBIR project. Contract number W15PT-06-C-M205 (W15P7T-06-C-M205).

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<sup>4</sup>Drexel co-PI Jonathan Cheng, Department of Civil and Environmental Engineering.

**8/2006–3/2007.**

Thomas Hewett (PI), William C. Regli and Moshe Kam.

“DYnamic Manager INtegrating OTM Networks (DYMINiON): Joint Warfighters Advisory Group Study” U.S. Army, Communications and Electronics Command (CECOM), Fort Monmouth, NJ, FY 2006 subaward under DoD contract DAAB07-01-9-L504. \$100,000.

**7/2006–6/2007.**

William C. Regli (PI), Moshe Kam, Spiros Mancoridis and P. Jay Modi.

“Agent Feasibility for FCS: Intelligent Agent System Reference Model,” U.S. Army, Communications and Electronics Command (CECOM), Fort Monmouth, NJ, FY 2006 subaward under DoD contract DAAB07-01-9-L504. \$310,000.

**7/2006–6/2007.**

Moshe Kam and William C. Regli.

“VoIP: Detect, Intercept and Traceback.” U.S. Army, Communications and Electronics Command (CECOM), Fort Monmouth, NJ, FY 2006 subaward under DoD contract DAAB07-01-9-L504. \$150,000.

**05/2003–08/2003.**

Iris Howley; award supervised by William C. Regli (PI).

National Institute of Standards and Technology, Summer Undergraduate Research Fellowship (SURF) Program, Grant 70-NAN-B2H0029, “Knowledge-Based Design.” \$6,500.

**4/2006–3/2007.**

William Regli (PI)

Research Experiences for Undergraduates (REU) Supplement, “Digital Engineering Archives.” Library of Congress National Digital Information Infrastructure and Preservation Program (NDIIPP) through the National Science Foundation (NSF) DIGARCH Program, Grant IIS-0456001, subaward IIS-0551789. \$12,000.

**2/2006–3/2007.**

Thomas Hewett (PI), William C. Regli and Moshe Kam.

“DYnamic Manager INtegrating OTM Networks (DYMINiON).” U.S. Army, Communications and Electronics Command (CECOM), Fort Monmouth, NJ, FY 2006 subaward under DoD contract DAAB07-01-9-L504. \$180,000.

**8/2006–12/2006.**

Moshe Kam and William C. Regli.

“Distributed Operations.” Lockheed Martin, Advanced Technology Laboratories, Cherry Hill, NJ. \$100,000.

**12/2005–12/2006.**

William C. Regli (PI) and Moshe Kam.

U.S. Army, Communications and Electronics Command (CECOM), Fort Monmouth, NJ, FY 2005 subaward under DoD contract DAAB07-01-9-L504. Title: Supplemental Award under “Intelligent Agent Feasibility on Future Tactical Networks” for support of DARPA IXO SPEYES Program, \$125,000.

**10/2005-9/2006.**

Brian J. Regli (PI), James Sim, Moshe Kam, Thomas Hewett, and William Regli.

“Establishing Operational Rules for Law Enforcement and First Responder Tactical Teams Utilizing Ad Hoc Wireless Networks,” Drakontas LLC, Prime Contractor for the Office of Justice Programs, United States Department of Justice, Grant 2005-IJ-CX-K004. Award amount \$332,571, (Drexel portion \$80,000).

**10/2005-9/2007.**

Timothy W. Simpson (PI), Robert B. Stone, Kemper E. Lewis and William C. Regli.

“Cyber-Infrastructure-Based Engineering Repositories for Undergraduates (CIBER-U)” a Multi-Disciplinary team including Drexel University, the Pennsylvania State University, the State University of New York at Buffalo and the University of Missouri at Rolla. National Science Foundation Cyber-Infrastructure Teams (CI-Teams) Program (05-560), Grant CISE/SCI-0537125. \$250,000, (Drexel portion \$54,308).

**10/2005-12/2006.**

William C. Regli (PI), Nicola Ferrier, S.K. Gupta, Ming Lin, Dinesh Manocha, Michael Piasecki, Vadim Shapiro, Krishnan Suresh.

“Creation and Use of Multi-Disciplinary Engineering Models,” a Multi-Disciplinary team including Drexel University, the University of Maryland at College Park, the University of Wisconsin at Madison and the University of North Carolina at Chapel Hill. National Science Foundation Cyber-Infrastructure Teams (CI-Teams) Program (05-560), Grant CISE/SCI-0537370. \$250,000, (Drexel portion \$65,000).

**8/2005-9/2006.**

“SPEYES: Sensing and Patrolling Enablers Yielding Enhanced Stability and Support Operations (SASO),” Defense Advanced Research Projects Agency (DARPA) Information Exploitation Office (IXO), BAA 04-17. SAIC Prime Contractor, Team includes Lockheed Martin Advanced Technology Laboratories, InHand Electronics, Remington Systems, AeroEnvironment, Sarnoff Labs, Aptima, BAE, Gatekeeper, GSTI, SRI, Drakontas LLC, and others. RDT&E Defense-Wide, Advanced Technology Development, Network-Centric Warfare Technology, PE 0603766E, Project NET-01, \$4,133,000 (est.) in FY 2006, \$10,631,000 (est.) in FY 2007, \$5,881,000 released in AY 2005, (Drexel portion approximately \$75,000).

**07/2005-06/2009.**

William C. Regli (PI), Ali Shokoufandeh, Wenfei Fan, and Steve Brooks.

“Digital Engineering Archives.” Library of Congress National Digital Information Infrastructure and Preservation Program (NDIIPP) through the National Science Foundation (NSF) DIGARCH Program, Grant IIS-0456001. \$478,146.

**07/2005-06/2006.**

William C. Regli (PI), Moshe Kam, Spiros Mancoridis and P. Jay Modi.

U.S. Army, Communications and Electronics Command (CECOM), Fort Monmouth, NJ, FY 2005 subaward under DoD contract DAAB07-01-9-L504. Title: “Intelligent Agent Feasibility on Future Tactical Networks,” \$700,000.

**07/2005-06/2006.**

Stephen Weber (PI), Moshe Kam, Kapil Dandekar, William Regli and Jay Modi.

U.S. Army, Communications and Electronics Command (CECOM), Fort Monmouth, NJ, FY 2005 subaward under DoD contract DAAB07-01-9-L504. Title: “Modeling and Simulation for Communications Planning,” \$300,000.

**08/2004-07/2005.**

William C. Regli (PI) and Vincent Cicirello.

Support for 2004 IEEE Symposium on Multi-Agent Security and Survivability. Defense Advanced Research Projects Agency (DARPA) Advanced Technology Office (ATO), P.O. NO 02B52-053. \$5,000.

**05/2004-06/2005.**

Moshe Kam and William C. Regli (co-PIs).

U.S. Army, Communications and Electronics Command (CECOM), Fort Monmouth, NJ, FY 2004 subaward under DoD contract DAAB07-01-9-L504. Title: “Mobile Wireless Platforms for Future Combat Systems,” \$1,600,000.

**05/2003-08/2003.**

Joseph Kopena, Dimitry Bespalov; award supervised by William C. Regli (PI).

National Institute of Standards and Technology, Summer Undergraduate Research Fellowship (SURF) Program, Grant 70-NAN-B2H0029, “Knowledge-Based Design.” \$13,402.

**7/2003-9/2003.**

William Regli (PI)

Research Experiences for Undergraduates (REU) Supplement, National Science Foundation, Directorate for Mathematical and Physical Science (MPS), Division of Mathematical Sciences (DMS), Computational and Algorithmic Representations of Geometric Objects (CARGO) Initiative grant DMS-0310619, “Accuracy and Stability of Computational Representations of Swept Volume Operations,” \$6,000.

**7/2003–6/2006.**

Denis Blackmore (PI), Ming Leu, William C. Regli and Wei Sun.  
Defense Advanced Research Projects Agency (DARPA), Defense Sciences Office (DSO) in conjunction with the National Science Foundation, Directorate for Mathematical and Physical Science (MPS), Division of Mathematical Sciences (DMS), Computational and Algorithmic Representations of Geometric Objects (CARGO) Initiative grant DMS-0310619, “Accuracy and Stability of Computational Representations of Swept Volume Operations,” \$450,000, (Drexel portion \$132,975).

**03/2003–06/2004.**

Moshe Kam and William C. Regli (co-PIs).  
U.S. Army, Communications and Electronics Command (CECOM), Fort Monmouth, NJ, FY 2003 subaward under DoD contract DAAB07-01-9-L504. Title: “Information Assurance and Networking Integrity for Secure Mobile Agent Infrastructure,” \$1,606,000. Drexel portion \$1,056,000.

**1/2003–12/2003.**

Lloyd Greenwald (PI), Harish Sethu and William Regli.  
Lockheed Martin, Naval Electronics and Surveillance Systems (NE&SS), Award# P.O. TT0653120, Drexel Project # 030730, “Net-Enabled C2 Component Development-Quality of Service Architectures in Ad Hoc Networks for Battle-Space Awareness.” \$50,000

**12/2002–11/2003.**

Lloyd Greenwald (PI), Jeffrey Popyack, and William Regli.  
The Boeing Company, 2002 Distributed Mission Computing Cluster IR&D Program, “Adaptive Distributed Mission Computing”, \$50,000. Contract Number P.O. ALK025.

**10/2002–09/2005.**

Wei Sun (PI), Earlin Lutz, Ali Shokoufandeh and William C. Regli.  
National Science Foundation, 2002 Information Technology Research Program (ITR), Directorate for Engineering (ENG), Division of Design, Manufacturing and Industrial Innovation (DMI) Grant DMI-0219176. “ITR: Design and Representation of Heterogeneous Structures.” \$482,605.

**04/2002–06/2003.**

Moshe Kam and William C. Regli (co-PIs).  
U.S. Army, Communications and Electronics Command (CECOM), Fort Monmouth, NJ, FY 2002 subaward under DoD contract DAAB07-01-9-L504. Title: “Information Assurance and Information Security for Networks of Lightweight PDA-based Mobile Agents,” \$850,000. Drexel portion, \$650,000.

**08/2002.**

William C. Regli.  
Software Donation (CATIA CAD System), IBM/Dassault Systems. In-Kind Value: \$5,000.

**05/2002–08/2002.**

Joseph Kopena; award supervised by William C. Regli (PI).  
National Institute of Standards and Technology, Summer Undergraduate Research Fellowship (SURF) Program, Grant 70-NAN-B2H0029, “Knowledge-Based Design.” \$6,701.

**04/2002–12/2002.**

William C. Regli (PI), Lloyd Greenwald, Harish Sethu, Alexander Meystel.  
Lockheed Martin, Naval Electronics and Surveillance Systems (NE&SS), “Knowledge Integration Across ad hoc Networks for Battle Space Awareness,” Contract Number TT0515374, \$75,000.

**10/2001–9/2002.**

Ali Shokoufandeh (PI) and William C. Regli.  
National Science Foundation, Directorate for Computer, Information Science, and Engineering (CISE), Division of Information and Intelligent Systems (IIS), Information and Data Management (IDM) Program, Grant CISE/IIS-0136337. Title: “SGER: Algorithmic Infrastructures for Knowledge Management.” \$50,000.

**2001-2002.**

William C. Regli (PI).

National Science Foundation, Directorate for Computer, Information Science, and Engineering (CISE), Division of Information, Robotics, and Intelligent Systems (IRIS), FY 2001 Research Experiences for Undergraduates (REU) Supplement under No. CISE/IIS-9733545. Title: "CAREER: Geometric Reasoning for Large Engineering Knowledge-Bases." \$10,000.

**5/2001-12/2004.**

William C. Regli (PI).

Office of Naval Research (ONR), Submitted to FY 2001 Young Investigator Program (YIP) and funded under FY 2001 ONR core business funding as Award No. N00014-01-1-0618, Proposal/Modification No. 01PR07356-00, "YIP: Process Knowledge Repositories." \$300,000.

**2000-2003.**

Vera Zaychik; award supervised by William C. Regli.

National Science Foundation, Graduate Research Fellowship Program, Grant NSF/DGE-9818283, \$105,600.

**2000.**

Lisa P. Anthony; award supervised by William C. Regli (PI).

National Institute of Standards and Technology, Summer Undergraduate Research Fellowship (SURF) Program, Grant 70-NAN-B0H0057, "Knowledge-Based Design." \$5,701.

**2000-2001.**

William C. Regli (PI).

Bentley Systems Incorporated, Drexel GICL/Bentley Fellow Program, \$25,000.

**2000-2001.**

John A Bielec and William C. Regli (PI).

National Science Foundation, Directorate for Computer, Information Science, and Engineering (CISE), Division of Advanced Network Infrastructure and Research (ANI), FY 2000 Research Experiences for Undergraduates (REU) Supplement under NSF Grant CISE/ANI-9729732 "Drexel University Access to vBNS." \$10,000.

**2000.**

William C. Regli (PI).

National Science Foundation, Directorate for Engineering (ENG), Division of Design, Manufacturing and Industrial Innovation (DMI). DMI-0001791, "Gordon Research Conference on Theoretical Foundations of Product Design and Manufacturing, June 11-16, 2000." \$25,000. Joint grant with the Gordon Research Foundation and Carlyle B. Storm.

**2000-2001.**

William C. Regli (PI).

National Science Foundation, Directorate for Computer, Information Science, and Engineering (CISE), Division of Information, Robotics, and Intelligent Systems (IRIS), One-Time Equipment Matching Funds Supplemental Award under No. CISE/IIS-9733545 "CAREER: Geometric Reasoning for Large Engineering Knowledge-Bases." \$20,000. (\$10,000 from NSF, \$10,000 from Drexel University).

**2000.**

William C. Regli (PI).

National Science Foundation, Directorate for Engineering (ENG), Division of Design, Manufacturing and Industrial Innovation (DMI). FY 2000 Research Experiences for Undergraduates (REU) Supplement under DMI-9713718, "Design Classification for Hybrid Generative/Variant Process Planning." \$10,000.

**2000-2002.**

Spiros Mancoridis (PI), Bruce Char, Lloyd Greenwald, and William C. Regli.

National Science Foundation, Directorate for Computer, Information Science, and Engineering (CISE), Division of Cross-Disciplinary Activities (CDA), Instrumentation Grants for Research in Computer and Information Science, Grant No. CISE/EIA-9986015. Title: "A Multidisciplinary Design Testbed for Research and Education." \$107,973.

**2000.**

William C. Regli (PI).

National Science Foundation, Directorate for Computer, Information Science, and Engineering (CISE), Division of Information, Robotics, and Intelligent Systems (IRIS), FY 2000 Research Experiences for Undergraduates (REU) Supplement under No. CISE/IIS-9733545. Title: "CAREER: Geometric Reasoning for Large Engineering Knowledge-Bases." \$10,000.

**1999–2000.**

Spiros Mancoridis (PI) and William C. Regli.

Sun Microsystems Computer Corporation, Academic Equipment Grant Program. "Drexel/Sun Microsystems Collaborative Design Laboratory," \$113,470.

**1999–2002.**

William C. Regli (PI).

AT&T Research, Internet Platform Technology Organization. Title: "Use of Internet2 and GeoPlex for Network-Enabled Collaborative Design and Manufacturing." \$100,000.

**6/1999–11/1999.**

William C. Regli (PI).

Defense Advanced Research Projects Agency (DARPA), **Next Generation Internet (NGI) Initiative**. Sub-contract to SAIC Prime Contract No. 1800327 with ITT Industries, Inc. for Government Prime Contract No. SP0700-98-D-4000 on BAA 99-23. **Hospitals, Universities, Businesses and Schools Initiative (HUBS)** topic: "Networked Environments for Chem/Bio Warfare Demonstration Project." \$30,000.

**1999–2000.**

John A Bielec and William C. Regli (PI).

National Science Foundation, Directorate for Computer, Information Science, and Engineering (CISE), Division of Advanced Network Infrastructure and Research (ANI), FY 1999 Research Experiences for Undergraduates (REU) Supplement under NSF Grant CISE/ANI-9729732 "Drexel University Access to vBNS." \$10,000.

**3/1998–2/2000**

John A Bielec (PI), Gregory Palmer, Da Hsuan Feng, and William C. Regli<sup>5</sup>.

National Science Foundation, Directorate for Computer, Information Science, and Engineering (CISE), Division of Advanced Network Infrastructure and Research (ANI), "Drexel University Access to vBNS." NSF Grant CISE/ANI-9729732. \$350,000.

**4/1999–4/2000**

William C. Regli (PI).

National Science Foundation, Directorate for Computer, Information Science, and Engineering (CISE), Division of Information, Robotics, and Intelligent Systems (IRIS), FY 1999 Research Experiences for Undergraduates (REU) Supplement under No. CISE/IIS-9733545. Title: "CAREER: Geometric Reasoning for Large Engineering Knowledge-Bases." \$10,000.

**2/1999–2/2000.**

William C. Regli (PI).

National Science Foundation, Directorate for Engineering (ENG), Division of Design, Manufacturing and Industrial Innovation (DMI). FY 1999 Research Experiences for Undergraduates (REU) Supplement under DMI-9713718, "Design Classification for Hybrid Generative/Variant Process Planning." \$10,000.

**01/1999–01/2000**

William C. Regli (PI).

State of Pennsylvania (via Carnegie Mellon University), Pennsylvania Information Technology Alliance (PITA). Title "Partner and Subcontractor Selection Over Information Networks." \$10,000.

**10/1998–10/1999**

William C. Regli (PI).

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<sup>5</sup>Regli replaced Gregory Palmer and Da Hsuan Feng as co-PI on this project upon their departures from Drexel University.

Defense Advanced Research Projects Agency (DARPA), **Next Generation Internet (NGI) Initiative**. Sub-contract to SAIC Prime Contract No. 1800327 with ITT Industries, Inc. for Government Prime Contract No. SP0700-98-D-4000 on BAA 99-23. **Hospitals, Universities, Businesses and Schools Initiative (HUBS)** topic: "Networked Environments for Telemaintenance." \$30,000.

**10/1998–10/2002.**

William C. Regli (PI), Thomas Hewett, Pradeep Khosla, Ramayya Krishnan, Stephen Lu and Berok Khoshnevis. National Science Foundation (NSF), Knowledge and Distributed Intelligence in the Information Age (KDI) Initiative, "KDI: Networked Engineering." NSF Grant CISE/IIS-9873005. Joint with Carnegie Mellon University and The University of Southern California. \$1,200,000 with \$400,000 to Drexel.

**1998–1999.**

William C. Regli (PI).

National Science Foundation, Directorate for Engineering (ENG), Division of Design, Manufacturing and Industrial Innovation (DMI), Grant No. ENG/DMI-9842664. FY 1998 Research Experiences for Undergraduates (REU) Supplement under DMI-9713718, "Design Classification for Hybrid Generative/Variant Process Planning." \$5,000.

**1998.**

William C. Regli (PI).

National Science Foundation, Directorate for Computer, Information Science, and Engineering (CISE), Division of Information, Robotics, and Intelligent Systems (IRIS), Grant No. CISE/IIS-9815915, Title: "Sponsorship for the 1998 AAAI SIGMAN AI in Manufacturing Workshop." \$10,000.

**1998.**

William C. Regli (PI).

United States Department of Commerce, National Institute of Standards and Technology (NIST) and United States Department of Defense, Defense Advanced Research Projects Agency (DARPA), "Sponsorship of the 1998 AAAI SIGMAN AI in Manufacturing Workshop." \$5,000.

**1998.**

William C. Regli.

Structural Dynamics Research Corporation and Metaphase Technology Incorporated, Software Donation: Metaphase Product Data Management (PDM) System and Oracle Enterprise Server. In-Kind Value: \$50,000.

**1998.**

William C. Regli.

Bridgeport Machine Tools Incorporated, Computerized Manufacturing Division, Software Donation: EZ-CAM Machining Software. In-Kind Value: \$10,000.

**1998.**

William C. Regli.

Hardware donation (Sun SPARCServer 5 and Cylink CryptoChannel), AT&T Research, Internet Platform Technology Organization. In-Kind Value: \$7,500.

**1998.**

William C. Regli.

Software Donation (GeoPlex E-Commerce System), AT&T Research, Internet Platform Technology Organization. In-Kind Value: \$250,000.

**1998–1999.**

William C. Regli (PI).

AT&T Research, Internet Platform Technology Organization. Title: "Network-Enabled Design and Manufacturing." \$15,000.

**10/1998–10/2002.**

William C. Regli (PI).

National Science Foundation, Directorate for Computer, Information Science, and Engineering (CISE), Division

of Information, Robotics, and Intelligent Systems (IRIS), Knowledge Models and Cognitive Systems (KMCS), 1997 CAREER Program, Grant No. CISE/IIS-9733545. Title: "CAREER: Geometric Reasoning for Large Engineering Knowledge-bases." \$285,000.

**1998.**

William C. Regli.

Software Donation (MicroStation), Bentley Systems Incorporated. In-Kind Value: \$45,000.

**2/1998–2/1999.**

Satyandra K. Gupta, Pradeep K. Khosla (PI), Christian Paredis, and William C. Regli.

National Science Foundation, Directorate for Computer, Information Science, and Engineering (CISE), Division of Cross-Disciplinary Activities (CDA), Instrumentation Grants for Research in Computer and Information Science, Grant No. CISE/CDA-9729827. Title: "Infrastructure for an Information-based Manufacturing Testbed: a Joint Initiative of Carnegie Mellon and Drexel Universities." Joint with Carnegie Mellon University's Institute for Complex Engineered Systems. \$169,540 total with \$50,500 to Drexel

**9/1997–9/2000.**

Dana Nau (PI), Jeffrey Herrmann, William C. Regli.

National Science Foundation, Directorate for Engineering (ENG), Division of Design, Manufacturing and Industrial Innovation (DMI), Grant No. ENG/DMI-9713718. Title: "Design Classification for Hybrid Generative/Variant Process Planning." Joint with the University of Maryland at College Park. \$576,370 total with \$159,671 to Drexel.

**08/1997–08/1998.**

William C. Regli (PI).

National Institute of Standards and Technology (NIST), Manufacturing Systems Integration Division, Grant No. 60NANB7D0092. Title: "Infrastructure and Content for a National Design Repository." \$45,000.

**1996.**

William C. Regli and Simon Szykman.

Defense Advanced Research Projects Agency (DARPA), MADE/RaDEO Program, Sponsorship of 1996 Network-Centric CAD Workshop, \$10,000.

**1996.**

William C. Regli and Simon Szykman.

US Navy ManTech and NIST National Advanced Manufacturing Testbed, Sponsorship of 1996 Network-Centric CAD Workshop, \$2,500. 1996.

**1996.**

William C. Regli and Simon Szykman.

Office of Naval Research (contract N00014-96-1-0880), Sponsorship of 1996 Network-Centric CAD Workshop, \$10,000. Joint with the Carnegie Mellon University Engineering Design Research Center (CMU EDRC). 1996.

**1996.**

William C. Regli and Simon Szykman.

Army Research Office, Directorate for Mathematics and Computer Science, Discrete Mathematics and Computer Science Program. Sponsorship of 1996 Network-Centric CAD Workshop, \$7,500.

**1996.**

William C. Regli.

Software Donation (MicroStation), Bentley Systems Incorporated. In-Kind Value: \$118,000.

**1996.**

William C. Regli.

Software Donation (FBMach and FBTol), Allied Signal Aerospace, Federal Manufacturing Technologies Division. In-Kind Value: \$25,000.

**1996–1997.**

William C. Regli.

National Institute for Standards and Technology and National Research Council, NRC Post-doctoral Associate-ship Program with Government Laboratories, \$130,805.

**1994.**

William C. Regli.

General Electric Corporation, Forgivable Loan (1994), \$5,000.

**H. Fellowships, Prizes, and Awards**

<b>Date</b>	<b>Award</b>	<b>Institution/Organization</b>
2010–2015	U.S. Department of State	Fulbright Specialist Roster
	2010–2011, Czech Republic, Czech Technical University, Prague	
2010	467th Fastest Growing Company in the USA, Inc Magazine	
2009	7th Fastest Growing Company	Philadelphia “100”
2009	Frontiers of Engineering (invitation)	National Academy of Engineering
2009	Deployed Application Award	Innovative Applications of Artificial Intelligence (IAAI/AAAI) Conference
2008	Director’s Recognition Award	~ US Army, CERDEC, Space and Terrestrial Communications Directorate (S&TC)
2007	“Simulation and C2 Information Systems Connectivity Experimentation Program (SINCE)” Best NCW Program from a Coalition Partner; Network Centric Warfare (NCW) Conference The Institute for Defense and Government Advancement	
2006	“Simulation and C2 Information Systems Connectivity Experimentation Program (SINCE)” Int’l Collaboration Award, 25th Army Science Conference, December 2006	
2005	Best Paper	IEEE Swarm Intelligence Symposium
2004	10 <sup>6</sup> Club	Drexel University Office of Research
2003	Outstanding Research Award	Drexel University College of Engineering
2003	10 <sup>6</sup> Club	Drexel University Office of Research
2002	10 <sup>6</sup> Club	Drexel University Office of Research
		\$1M in external research funding for 2001-2002
2002	Phase II Winner	Wharton Business Plan Competition Wharton School of Business, The University of Pennsylvania
1998	CAREER Award	National Science Foundation
1996	Second Place	The University of Maryland at College Park Office of Technology Liaison Information Technology Invention of the Year
1995	Post-Doctoral Fellowship	National Research Council
1995	Special Service Award	National Institute of Standards and Technology (\$2,500)
1995	The George Harhalakis Outstanding Systems Engineering Graduate Student Award	The University of Maryland at College Park Institute for Systems Research (\$1,500)
1994	Forgivable Loan Grant	General Electric Corporation and The University of Maryland College of Engineering
1991	Honorable Mention	National Science Foundation Graduate Fellowship Competition
1989	Outstanding Student Speaker AMS Award for Outstanding Pi Mu Epsilon Student Paper Presentation, Summer Conference	American Mathematical Society
1989	Alumni Association Award	Saint Joseph’s University
1989	Medal for Computer Science	Saint Joseph’s University
1989	Medal for Mathematics	Saint Joseph’s University
1989	Elected	Pi Mu Epsilon, National Mathematics Honor Society
1987-1989	Dean’s List	Saint Joseph’s University
1985-1989	Presidential Scholarship	Saint Joseph’s University

1985-1987 Villiger Debating Society Scholarship Saint Joseph's University

## I. Editorships, Editorial Boards, and Reviewing Activities for Journals and Other Learned Publications

### Editorships and Editorial Boards:

Date	Activity
2007-2009	Advisory Board, Massachusetts Institute of Technology (MIT) Libraries FACADE: Future-proofing Architectural Computer-Aided DEsign
2006-present	Editorial Board, <i>Journal of Advanced Engineering Informatics</i> Elsevier Science Publishers
2002-present	Editorial Board, <i>Journal of Computer-Aided Design (CAD)</i> Elsevier Science Publishers
2001-present	Editorial Board, <i>The Journal of Artificial Intelligence in Engineering Design, Analysis and Manufacturing (AI-EDAM)</i> , Cambridge University Press
1996-2000	Charter Member, Editorial Board, <i>IEEE Internet Computing</i>

### Reviewing Activities:

Date	Activity
2006	<i>Transactions of the IEEE, Visualization and Computer Graphics</i>
2004	<i>Transactions of the IEEE, Automation Science and Engineering (TASE)</i>
2004	<i>ASME IMECHE</i>
2000-present	<i>Transactions of the ASME/ACM, Journal of Computer and Information Science in Engineering (JCISE)</i>
1995-present	<i>Research in Engineering Design</i>
1994-present	<i>ASME Design Engineering Technical Conferences</i> Design for Manufacturing Conference Design Theory and Methodology Conference Design Automation Conference Computers and Information in Engineering Conference
1994-present	<i>International Journal of Computer Aided Design (CAD)</i>
1993-present	<i>ACM Symposium on Solid Modeling and Applications</i>
2004-present	<i>CAD Conference</i> <i>IEEE International Workshops on Enabling Technologies:2000-2002</i>
2003	<i>IEEE Computer</i>
2002	<i>Computers in Industrial Engineering</i>
1993,2002	<i>IEEE Conference on Robotics and Automation</i>
1996-2001	<i>Transactions of the ASME, Journal of Mechanical Design</i>
1996-2001	<i>IEEE Internet Computing</i>
2001,2004	<i>The Communications of the ACM</i>
2001	<i>IEEE Transactions on Robotics and Automation (R&amp;A)</i>
2000	<i>ACM Transactions on Information Systems</i>
2000,2005,2008	<i>IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI)</i>
2000	<i>Engineering with Computers</i>
1995-1998	<i>IIE Transactions</i>
1998	<i>Integrated Computer-Aided Engineering</i>
1996	<i>ACM Computing Surveys</i>
1996	<i>Journal of Agile Enterprises</i>
1996	<i>International Journal of Computational Geometry</i>
1995	<i>Journal of Intelligent Manufacturing</i>
1994	<i>ACM Computing Surveys</i>
1994	<i>Journal of Operations Research</i>
1993	<i>Advances in Engineering Software</i>

### 3. Teaching and Advising

#### A. Courses Taught

##### i. General

Semester	Number	Course Title
2010 Spring	CS 485	Special Topics in AI:Robot Lab
2010 Winter	CS 511	Robot Lab
2009 Spring	CS 511	Robot Lab
2009 Spring	CS 485	Robot Lab
2009 Winter	CS 610	Adv Artificial Intelligence
2008 Winter	CS 610	Adv Artificial Intelligence 3 2
2008 Winter	CS 481	Adv Artificial Intelligence 3 16
2007 Fall	CS 485	ST: Bio Insp Robots & Eng Info
2007 Spring	CS 511	Robot Lab
2007 Spring	CS 485	ST: Robot Lab
2007 Spring	ENGR 103	Engineering Design Lab III
2007 Winter	CS 690	Modeling Bio-Inspired Robots
2007 Winter	ENGR 102	Engineering Design Lab II
2006 Fall	CS 680	ST: Model. for Snake-Bsd Robot
2006 Fall	ENGR 101	Engineering Design Lab I
2005 Fall	CS	Introduction to AI
2005 Fall	HON 202	Introduction to the Honors Program
2005 Spring	CS	Wireless Networks and Applications
2005 Winter	CS	Knowledge-based Agents
2003 Winter	CS 480	Computer Graphics I
2002 Fall	CS 380/590	Introduction to Artificial Intelligence
2002 Summer	CS 480	Computer Graphics I
2002 Spring	MCS 380/590	Introduction to Artificial Intelligence
2002 Winter	MCS 558	Advanced Data Structures and Algorithms II
2001 Fall	MCS 380/590	Introduction to Artificial Intelligence
2001 Summer	MCS 7XX	Knowledge-Based Agents
2001 Spring	MCS 380/590	Introduction to Artificial Intelligence
2001 Spring	MCS	Database I
2000 Fall	MCS 380/590	Introduction to Artificial Intelligence
2000 Summer	MCS 7XX	Knowledge-Based Agents
2000 Winter	MCS 558	Advanced Data Structures and Algorithms II
1999 Fall	MCS 557	Advanced Data Structures and Algorithms I
1999 Fall	MCS 380	Introduction to Artificial Intelligence
1999 Spring	MCS 558 001	Advanced Data Structures and Algorithms II
1999 Spring	MCS 558 002	Advanced Data Structures and Algorithms II
1999 Winter	MCS 557 001	Advanced Data Structures and Algorithms I
1999 Winter	MCS 557 002	Advanced Data Structures and Algorithms I
1998 Fall	MCS 380	Introduction to Artificial Intelligence
1998 Fall	MCS 590	Introduction to Artificial Intelligence
1998 Fall	MCS 557	Advanced Data Structures and Algorithms I
1998 Spring	MCS 380	Introduction to Artificial Intelligence
1998 Spring	MCS 590	Introduction to Artificial Intelligence
1998 Winter	MCS 771	Expert and Knowledge-Based Systems
1998 Winter	MCS 280	Advanced Data Structures and Algorithms II
1997 Fall	MCS 590	Introduction to Artificial Intelligence
1997 Fall	MCS 280	Advanced Data Structures and Algorithms I
1992 Spring	CMSC 150	Discrete Mathematics (U. Maryland)
1991 Fall	CMSC 150	Discrete Mathematics (U. Maryland)

**B. Advising: Other than Research Direction****i. Graduate**

- Course advising for roughly 3-5 students per year, in the CS graduate program.
- Ph.D. and Masters thesis committees for roughly 2-3 students per year, for a number of departments including Computer Science, Mech. Eng., and Civil Eng., as well as at other universities including Carnegie Mellon University and the University of Maryland at College Park.

**C. Advising: Research Direction****i. Undergraduate Students**

Undergraduate students are actively involved in the life of the Geometric and Intelligent Computing Laboratory. We employ approximately 6-8 undergraduate research assistants per year. A partial list of students employed as NSF Research Experience for Undergraduates (REU), Co-ops and Undergraduate Research Assistants is given below. Undergraduate Research Assistants:

<b>Name</b>	<b>Dates</b>	<b>Project(s)</b>	<b>Notes</b>
Aaron, Melissa	06-	CI-TEAMS	
Anthony, Lisa	99-0	KDI	
Artz, Donovan	00-03	KDI, ACIN	
Balchandani, Vijay	05-	ACIN SWAT	w/ M. Kam
Barolat-Romana, Paolo	00-01	KDI	
Belov, Nadya	02-04	CAREER, ACIN SWAT	w/ M. Kam
Bespalov, Dmitry	03-05	ONR	w/ A. Shokoufandeh
Bloom, Brandon	05	ACIN SWAT	w/ M. Kam
Braude, Ilya	02-04	KDI	
Burnheimer, Andrew	02-05	ACIN SWAT	w/ M. Kam
Cera, Christopher	02-04	ONR	w/ JungHyun Han
Cicirello, Vincent	98-99	Hybrid Planning	
Comer, Immanuel	02-04	KDI, ONR	w/ M. Kam
Cupp, David	05-06	ACIN M&S	w/ J. Modi & S. Weber
Dolhansky, Brian	10	Agents	
Falk, Russell (CoMAD)	07-08	SWAT	
Foster, Cheryl	98-01	KDI	
Gabidova, Vera	01	KDI	
Galperin, Simon	05-06	ACIN SWAT	w/ M. Kam
Garcia, Saturnino	03-04	ACIN SWAT	w/ M. Kam
Garnett, Micah	04	ACIN SWAT	w/ M. Kam
Garrison, Kirsten	98	CAREER	
Genzel, Dmitry	98-99	KDI	
Hayes, Erik	00-03	KDI	
Hight, Andrew	05-07	ACIN SWAT	
Howley, Katherine	04-07	ACIN SWAT	w/ M. Kam
Ingram, Dustin	10	Agents	
Ip, Cheuk (Horace) Yui	01-05	ONR	
Jethwani, Rachana	02-03	CARGO	
John, Jon	99-02	KDI	
Kendall, Seth (CoMAD)	07-08	SWAT	
Kerchentseva, Olga	01-02	KDI	
Kopena, Joseph	02-06	KDI	
Lapadat, Daniel	00-03	KDI, ACIN SWAT	w/ M. Kam

Lester, Christopher	06-	ACIN SWAT	w/ M. Kam
Maher, Leonard	10	Agents	
Malikov, Maxim	02-04	ACIN SWAT	w/ M. Kam
Mandilian, Lauren (CoMAD)	07-08	SWAT	
McWherter, David	98-02	KDI	
Measle, Ryan	05-	ACIN SWAT, SPEYES	w/ M. Kam
Millar, David	10	Agents	
Morizio, Nicholas	02-03	ACIN SWAT	w/ M. Kam
Moshiri, Nasrin	02-03	ACIN SWAT	w/ M. Kam
Naik, Gaurav	03-06	ACIN SWAT	w/ M. Kam
Nanjapa, Aparna	00-01	KDI	
Nguyen, Ngoc-Tung	06-19	DIGARCH	
Norman, William	02-03	ACIN SWAT	w/ M. Kam
Okahm, Daniel	05-07	ACIN SWAT	w/ M. Kam
Pack, Thomas	06-07	DEA	
Palma, Michael	10	Agents	
Pascale, Chancellor	05-06	ACIN SWAT	w/ M. Kam
Patti, Jeff	06-08	ACIN SWAT	w/ M. Kam
Peabody, Mitchell	00-	KDI/ONR	w/ A. Shokoufandeh
Pham, Nam	06-07	DEA	
Piecyk, Martin	06-10	DEA, CI-TEAMS	
Primerano, Richard	03-04	ACIN SWAT	w/ M. Kam
Pron, Kristy (CoMAD)	07-08	SWAT	
Pyles, Bryan	04-08	ACIN SWAT	w/ M. Kam
Romanov, Darya	01	KDI	
Rosenfeld, Aaron	10	Agents	
Ryan, Jonathan	10	Agents	
Rybak, Vadim	02	KDI	
Salerno, Vito	06-07	ACIN VoIP	
Sathe, Amol (CoMAD)	07-08	SWAT	
Sausa, Michael (CoMAD)	07-08	SWAT	
Segall, Jeffrey	10	Agents	
Shaffer, Joshua	03-06	ACIN SWAT, DEA	
Shapirshteyn, Yuriy	99-02	KDI, CAREER	
Sherman, Iva	01	KDI	
Shroeder, Craig	03-04	ITR	
Sieger, Lenoard	02-03	ONR	
Sorokorensky, Michael	99-00	KDI	
Stradodakis, John	99	KDI	
Sultanik, Evan	02-06	ACIN SWAT	w/ M. Kam
Thiel, James	04-08	ACIN SWAT	w/ M. Kam
Tsang, Kenneth	03-04	ACIN SWAT	w/ M. Kam
Urbano, Leonardo	03-04	ACIN SWAT	w/ M. Kam
Usbek, Kyle	03-05	ACIN SWAT	w/ M. Kam
Venutolo, Daniel	05-	ACIN SWAT	w/ M. Kam
Wambolt, Thomas	06-	ACIN SWAT	w/ M. Kam
Warren, Jacob	03-04	ACIN SWAT	w/ M. Kam
Wharton, Joshua	99	CAREER	
White, Rashida	00	KDI	
Wilkie, David	05-07	CI-TEAMS	
Winners, Marc	04-09	ACIN SWAT	w/ M. Kam
Wozinski, Matt	05-06	ACIN SWAT, SPEYES	w/ M. Kam
Yoon, Janet	00	CAREER	

## ii. M.S. Students Advised/Supported

1. *Aaron Rosenfeld*  
M.S., Computer Science, 2013 (expected).  
Research area: Network-Centric Middleware
2. *Dustin Ingram*  
M.S., Computer Science, 2013 (expected).  
Research area: Network-Centric Middleware
3. *Thomas Wambolt*  
M.S., Computer Science, 2012 (expected).  
Research area: Network-Centric Middleware
4. *Christopher Cannon*  
M.S., Computer Science, 2010.  
Research area: Software Testing of Agent-Based Systems.  
Thesis Title: *Scenario-Driven Evaluation of Network-Centric Agent Systems*
5. *Jeffrey Segal*  
M.S., Computer Science, 2010.  
Research area: Agent-Based Systems
6. *Kyle Usbeck*  
M.S., Computer Science, 2009.  
Research area: Network-Centric Planning.  
Thesis Title: *Network-Centric Automated Planning and Execution*
7. *Drew T. Houston*  
M.S., Computer Science, 2008.  
Research area: Educational Robotics  
Thesis Title: *Robotics Toolkit for Pre-College Engineering Education*
8. *Richard Primerano*  
M.S., Electrical and Computer Engineering, 2008.  
Co-Advisor: Moshe Kam  
Research area: Bio-Inspired Robotics  
Thesis Title: *A Serpentine Robot Designed for Efficient Rectilinear Motion*
9. *William Mongan*  
B.S./M.S., Computer Science, 2006.  
Co-Advised with Spiros Mancoridis  
Research area: Software Engineering and Agent Systems.
10. *Robert Lass*  
M.S., Computer Science, 2006.  
Co-Advised with Jay Modi  
Research area: Multi-Agent systems.
11. *Chris Dugan*.  
M.S., Computer Science, 2006.  
Co-Advised with Jay Modi  
Research area: Multi-agent systems.
12. *Evan Sultanik*.  
B.S./M.S., Computer Science, 2006.  
Research area: Multi-Agent Systems  
Thesis Title: *Enabling Multi-Agent Coordination in Stochastic Peer-to-Peer Environments*

Current Position: Ph.D. Student at Drexel University  
Awards: 2005 CRA Undergraduate Award, "Honorable Mention"

13. *Michael Thomas*.  
M.S., Computer Science, 2005.  
Research area: Peer-to-Peer data retrieval by mobile agents.  
Thesis Title: *Peer-to-Peer Data Lookup for Multi-Agent Systems*  
Current Position: Three Rings Design (www.threerings.net).
14. *Kris Malfettone*. B.S./M.S., Computer Science, 2005.  
Research area: Agent-based Systems and their applications.  
Current Position: Chief Software Architect, Drakontas, LLC.
15. *Andy Mroczkowski*. M.S., Computer Science, 2005.  
Research area: Security for Multi-Agent Systems.  
Current Position: Drakontas, LLC.
16. *Dmitiry Bepalov*.  
B.S./M.S., Computer Science, 2005.  
Co-Advised with Ali Shokoufandeh  
Research area: CAD Databases and Data Mining.  
Thesis Title: *Scale-Space Representation for Matching of 3D Models*  
Awards: 2004 CRA Undergraduate Award, "Finalist"  
Current Position: Ph.D. student at Drexel.
17. *Cheuk (Horace) Yui Ip*.  
B.S./M.S., Computer Science, 2005.  
Research area: CAD Databases and Data Mining. Thesis Title: *Automatic Classification of CAD Models*  
Current Position:  
Awards: ; 2003 CRA Undergraduate Award, "Honorable Mention"  
Current Position: Ph.D. Student in the Department of Computer Science at the University of Maryland at College Park.
18. *Christopher Cera*. B.S./M.S., Computer Science, 2004.  
Research area: Collaborative Graphics.  
Thesis Title: *Secure and Knowledge-based Computer-Aided Design*  
Current Position: Director of Customer Experience, Drakontas LLC.
19. *Donovan Artz*. B.S./M.S., Computer Science, 2003.  
Research area: Agent security  
Thesis Title: *Integration of Security and Multi-agent Systems on Mobile Ad hoc Networks*
20. *Mitchell Peabody*.  
B.S./M.S., Computer Science, 2003.  
Co-Advised with Ali Shokoufandeh  
Research area: Engineering and Graph Databases.  
Thesis Title: *Finding Groups of Graphs in Databases*  
Current Position: Ph.D. Student, Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology (MIT).  
Awards: NSF Graduate Research Fellowship; 2001 CRA Undergraduate Award, "Honorable Mention"
21. *Lisa Anthony*.  
B.S./M.S., Computer Science, 2002.  
Research area: Multi-Agent Systems.  
Thesis Title: *Evolving Board Evaluation Functions for a Complex Strategy Game*.  
Current Position: Post Doctoral scholar at U of Maryland at College Park  
Institute, School of Computer Science, Carnegie Mellon University.  
Awards: NSF Graduate Research Fellowship, 2000 CRA Undergraduate Award, "Winner"

22. *David McWherter*. B.S./M.S., Computer Science, 2001.  
Research area: Engineering and Graph Databases.  
Thesis Title: *Approximate Variations of Graph matching and Applications*  
Current Position: Ph.D. Student, School of Computer Science, Carnegie Mellon University.
23. *Yuriy Shapirshteyn*. B.S./M.S., Computer Science, June 2001.  
Research area: Collaborative Design.
24. *Vera Zaychik*.  
M.S., Computer Science, August 2001.  
Research area: Collaborative Software Design.  
Thesis Title: *Capturing Design Context in Distributed Communication of Software Engineers*  
Current Position: Lockheed Martin, Advanced Technology Laboratories.  
Awards: NSF Graduate Research Fellowship
25. *Jonathan Sevy*.  
M.S., Computer Science, August 2000.  
Research area: Collaborative Design.  
Current Position: Agere/Orinico/Flarian Systems.
26. *Max Peysakhov*.  
M.S.S.E., Software Engineering, June 2000  
Research area: Genetic Algorithms for Design Evolution.  
Current Position: Traffic.com
27. *Vlada Galinskaya*.  
M.S.S.E., Software Engineering, June 2000  
Research area: Genetic Algorithms for Design Evolution.  
Last known position: Verizon.
28. *Jun Pang*.  
M.S., Computer Science, March 2000.  
Research area: Design Rationale.  
Last known position: Unisys.
29. *Yan Pang*.  
M.S., Computer Science, December 1999.  
Research area: Design Rationale.  
Last known position: Unisys.
30. *Xiaoli Qin*.  
M.S., Computer Science, June 1999.  
Research area: Case-based Reasoning for Engineering Design.  
Thesis Title: *A Case-Based Reasoning System for Bearing Design*  
Last known position: Computer Scientist, Drexel Intelligent Infrastructure and Safety Institute.
31. *Vincent Cicirello*.  
B.S./M.S., Computer Science, June 1999.  
Research area: Indexing and Retrieval of Mechanical Designs.  
Thesis Title: *Intelligent Retrieval of Solid Models*  
Current Position: Received Ph.D. in Robotics from the School of Computer Science, Robotics Institute of at Carnegie Mellon University in 2003. Now faculty at Stockton College of NJ.
32. *Santiago Lombeyda*. M.S., Computer Science, 1998.  
Research area: Conceptual and Collaborative Design.  
Thesis Title: *A GUI for Conceptual and Collaborative Design*  
Current Position: Research Programmer, California Institute of Technology.

### iii. Doctoral

1. *Evan Sultanik*  
Ph.D., Computer Science, September 2010  
Thesis: *Automatic Construction, Maintenance, and Optimization of Dynamic Agent Organizations*
2. *Joseph Kopena*  
Ph.D., Computer Science, 201X (expected)
3. *Robert N. Lass*  
Ph.D., Computer Science, 201X (expected)
4. *Vera Zaychick*  
Ph.D., Information Science, 201X (expected)

### iv. Post-Doctoral and Visiting Faculty

Name	Dates	Notes
Jonathan Sevy	99-00	Sabbatical leave from Allentown College
JungHyun Han	01-03	Sabbatical leave from SKKU
Vincent Cicirello	03-05	Post-Doctoral after Ph.D. from CMU
Ming Li	2008	Post-Doctoral Scholar

### v. Visiting Graduate Students

Name	Dates	Institution
Tonda	2010	Czech Technical University
SeHyun-Myung	98	Korea University
Taeseong Kim	01-02	SKKU

## D. Extension Activities

N/A

## 4. Service

### A. University

#### i. Departmental

Date	Activity
2007–2008	Chair, Computer Science Search Committee
2004–2005	Chair, Computer Science Search Committee
2002–2003	Chair, Computer Science Search Committee
1999–present	Ph.D. in Computer Science Committee
1998–present	MCS Planning Committee
1997–1999	Algorithms Track and Curriculum Chair
1997–present	AI Track
1997–1999	AI Track and Curriculum Chair
1997–2002	MCS Development Committee
1997–2002	MCS Computer Science Faculty Search Committee
1997–2002	MCS Advisory Committee
1993–1995	Computer Science Department Council (U. Maryland)
1992	Review Committee for Ph.D. written qualifying exam system (U. Maryland)

## ii. College and Divisional

Date	Activity
2005-200X	tDEC Re-evaluation committee
1993-1994	College of Computer, Mathematical, and Physical Sciences (CMPS) Council (U. Maryland)

## iii. University-Wide

Date	Activity
2010	Review Committee for College of Engineering Dean
2004-2005	Search Committee for University Provost
2002-2003	Search Committee for Vice Provost for Research and Graduate Studies
2002-2003	Vice President for Research's Committee on MCP/HU-Drexel Research Merger
1998-2000	Vice President for Research's Committee on Graduate Education and Research
1998-2000	Vice President for Research's Committee on Interdisciplinary Computer Science Research
1998	Vice President for Research's Building Design Committee
1998-2000	Co-Organizer Joint Mathematics and Computer Science and Electrical and Computer Engineering Seminar Series

## B. Professional

### i. Offices and Committee Memberships in Professional Organizations

Date	Activity
2006-2007	Chair, Executive Committee of the Solid Modeling Association
2003-2004	Co-Founder and Member of Executive Committee IEEE Conference on Multi-Agent Security and Survivability (MAS&S)
2003-2005	Executive Committee of the Solid Modeling Association
1997-2000	Benchmarks Chair, AAI Special Interest Group on Manufacturing (SIGMAN)

### ii. Reviewing for Agencies

Date	Activity	Performed for
2010	Reviewer	NSF CRI
2009	Reviewer	US Department of Energy, Smart Grid Grants Program
2008	Reviewer	National Science Foundation (NSF) CISE/IIS Program
2007	Reviewer	National Institute of Justice, Communications Technology Program
2004	Reviewer	State of Maryland, Industrial Partnerships (MIPS) Program
2004	Reviewer	National Science Foundation (NSF) Digital Society and Technologies Program (DST)
2003	Reviewer	National Science Foundation (NSF) DMI/CAREER Program
2002	Reviewer	National Science Foundation (NSF) Chemical Engineering Program
2001	Reviewer	National Science Foundation (NSF) IDM/CAREER Program
2000	Reviewer	National Aeronautics and Space Administration (NASA) Intelligent Systems Program
1999	Reviewer	National Science Foundation (NSF) KDI Program
1999	Reviewer	National Science Foundation (NSF) CISE/IIS/KMCS Program
1999	Reviewer	National Science Foundation (NSF) CISE/IIS/DKM Program
1999	Reviewer	National Science Foundation (NSF) KDI Program Pre-Proposals
1998	Reviewer	National Science Foundation (NSF) ENG/POWRE Program
1998	Reviewer	National Science Foundation (NSF) ENG/GOALI Program
1997	Reviewer	National Science Foundation (NSF) ENG/DMI Program
1996	Reviewer	National Science Foundation (NSF) ENG/DMI Small Business Innovative Research (SBIR) Program
1996	Reviewer	National Science Foundation (NSF) CISE/MIPS Program

1996	Reviewer	National Science Foundation (NSF) CISE/IRIS/KMCS CAREER Program
1995	Reviewer	United States Department of Defense, Defense Advanced Research Projects Agency (DARPA)

### iii. Other Unpaid Services to Agencies

Date	Activity
2010	Department of Energy, National Nuclear Security Administration, PRIDE
2002-2005	Department of Energy, National Nuclear Security Administration, Model Archive Standards Team
1998	Participant, NSF Workshop on Scalable Enterprise Systems

### iv. Other non-University Committees, Commissions, Panels, Etc.

Date	Activity
2009	Co-General Chair, <i>SIAM/ACM Joint Conference on Geometric and Physical Modeling</i>
2008	Co-Chair, <i>ACM Symposium on Solid and Physical Modeling (SPM08)</i>
2007	Co-Chair, <i>Long Term Sustainment Workshop</i> , NIST Interoperability Week National Institute of Standards and Technology (NIST), April 24–25, 2007.
2007	Co-Chair, <i>Atlantic Workshop on Long Term Knowledge Retention</i> , University of Bath, 12–13 February 2007.
2006	Co-Chair, <i>Long Term Knowledge Retention Workshop</i> , NIST Interoperability Week, March 15-16.
2006	Program Committee, <i>AAAI</i>
2005	Program Committee, <i>GECCO 2005</i>
2005–	Program Committee, <i>ACM Symposium on Solid and Physical Modeling</i>
2005	Program Co-Chair, <i>IEEE Symposium on Multi-Agent Security and Survivability</i>
2004	Program Committee, <i>Second International Workshop on Semantic Web and Databases (SWDB)</i>
2004–2005	Program Committee, <i>IEEE Symposium on Multi-Agent Security and Survivability</i>
2004	Founding Member, Executive Committee, <i>IEEE Symposium on Multi-Agent Security and Survivability</i>
2004–2005	Program Committee, <i>CAD Conference</i>
2002–2003	Ad hoc member, <i>United States Department of Energy, Model Archive Working Group</i>
2000	Co-Vice-Chair, <i>Gordon Research Conference on Theoretical Foundations of Engineering Design and Manufacturing</i>
2000	Papers Co-Chair, <i>Fifth ASME Design for Manufacturing Conference</i>
2000	Program Committee, <i>AAAI SIGMAN Workshop on AI in Manufacturing</i>
1999	Program Committee, <i>AAAI SIGMAN Workshop on AI in Manufacturing</i>
1999	Program Committee, <i>ASME Design for Manufacturing Conference</i>
1998	Member, Structural Dynamics Research Corporation, Customer Council for Strategic Direction
1998	Papers Chair, <i>ASME Design for Manufacturing Conference</i>
1998	Program Committee, <i>AAAI SIGMAN Workshop on AI in Manufacturing</i>
1998	Program Committee, <i>SIAM Workshop on Mathematical Foundations for Features in Computer-Aided Design</i>
1997	Area Chair, <i>ASME Design for Manufacturing Conference</i>
1997	Program Committee, <i>TEAMCAD Workshop</i>
1996	Area Chair, <i>ASME Design for Manufacturing Conference</i>
1996	Co-Chair, <i>CAM-I Features Workshop</i>
1996	Co-Chair, <i>Network-Centric CAD: Technology Assessment Workshop</i>
1996	Program Committee, <i>AAAI SIGMAN Workshop on AI in Manufacturing</i>
1996	Chair and Organizer, <i>Fourth NIST Workshop on Manufacturing Process Planning</i>

### v. Professional Memberships, Etc.

Date	Organization
2006–present	Association for Computing Machinery (ACM), Life Member, Senior Member
2003–present	Institute for Electronics and Electrical Engineers (IEEE), Senior Member

1996–present	Institute for Electronics and Electrical Engineers (IEEE) Computer Society
1990–present	American Association for Artificial Intelligence (AAAI), Life Member
1989–present	Sigma Xi, The National Research Society, Life Member
1989–2006	Association for Computing Machinery (ACM)
1993–1996	American Society of Mechanical Engineers
1991–1994	American Association for the Advancement of Science

#### **vi. Paid Consultancies**

<b>Date</b>	<b>Activity</b>
2001	P. Haughton Inc.
2000-2001	Technology Consultant, Bluestone Consulting Inc.
2000	Technology Consultant, SourceONE Inc.
1999–2002	Technology Advisor, Inlec Communications Corporation
1999–2000	Technology Consultant, Mann, Ungar, Spector & Labovitz
1998	Technology Consultant, Syscom Services
1998	Technology Consultant, New Century Associates Incorporated
1996-97	Technology Consultant, InterVisage Incorporated
1995	Book Reviewer, Wiley Publishing Company
1992	Technology Consultant, Capitol Consultants

## **5. References**

Available upon request.