

**THE UNIVERSITY OF TEXAS AT AUSTIN**  
**The Cockrell School of Engineering**

**FULL NAME** Christine Julien **TITLE** Associate Professor

**DEPARTMENT** Electrical and Computer Engineering

**EDUCATION**

<b>University</b>	<b>Fields of Study</b>	<b>Degree</b>	<b>Date</b>
Washington University in Saint Louis	Computer Science	D.Sc.	August 2004
Washington University in Saint Louis	Computer Science	M.S.	May 2003
Washington University in Saint Louis	Applied Science (Computer Science and Biology)	B.S.	May 2000

**CURRENT AND PREVIOUS ACADEMIC POSITIONS**

<b>University</b>	<b>Position</b>	<b>Years</b>
The University of Texas at Austin	Associate Professor	2010-Present
The University of Texas at Austin	Assistant Professor	2004-2010
Washington University in Saint Louis	Graduate Research Assistant	2000-2004

**REFEREED JOURNAL PUBLICATIONS** (\* indicates a supervised student or post-doc)

1. Jamie Payton, Christine Julien, Vasanth Rajamani\*, and Gruia-Catalin Roman, "Using Snapshot Query Fidelity to Adapt Continuous Query Execution," *Pervasive and Mobile Computing* (accepted, to appear).
2. Nirmalya Roy\*, Sajal K. Das, and Christine Julien, "Resource-Optimized Quality-Assured Ambiguous Context Mediation Framework in Pervasive Environments," *IEEE Transactions on Mobile Computing*, Vol. 11, No. 2, pp. 218-229, February 2012.
3. Xiaowei Luo, William J. O'Brien, and Christine Julien, "Comparative Evaluation of Received Signal Strength Index (RSSI) Based Indoor Localization Techniques for Construction Jobsites," *Advanced Engineering Informatics*, Vol. 25, pp. 355-363, April 2011.
4. Jamie Payton, Christine Julien, Gruia-Catalin Roman, and Vasanth Rajamani\*, "Semantic Self-Assessment of Query Results in Dynamic Environments," *ACM Transactions on Software Engineering and Methodology*, Vol. 19, No. 4, April 2010.
5. William J. O'Brien, Christine Julien, Sanem Kabadayı\*, Xiaowei Luo, and Joachim Hammer, "An Architecture for Decision Support in Ad Hoc Sensor Networks," *Journal of Information Technology in Construction, Special Issue on Next Generation Construction IT: Technology Foresight, Future Studies, Roadmapping, and Scenario Planning*, Vol. 14, pp. 309-327, July 2009.
6. Vasanth Rajamani\*, Sanem Kabadayı\*, and Christine Julien, "An Interrelational Grouping Abstraction for Heterogeneous Sensors," *ACM Transactions on Sensor Networks*, Vol. 5, No. 3, Article 27, May 2009.
7. Christine Julien, Gruia-Catalin Roman, and Qingfeng Huang, "SICC: Source-Initiated Context Construction in Mobile Ad Hoc Networks," *IEEE Transactions on Mobile Computing*, Vol. 7, No. 4, pp. 401-415, April 2008.

8. Sanem Kabadayi\* and Christine Julien, "Scenes: Abstracting Interaction in Immersive Sensor Networks," *Pervasive and Mobile Computing*, Vol. 3, No., 6, pp. 635-658, December 2007.
9. Gruia-Catalin Roman, Christine Julien, and Jamie Payton, "Modeling Adaptive Behaviors in Context UNITY," *Theoretical Computer Science*, Vol. 376, No. 3, pp. 185-204, May 2007.
10. Christine Julien and Gruia-Catalin Roman, "EgoSpaces: Facilitating Rapid Development of Context-Aware Mobile Applications," *IEEE Transactions on Software Engineering*, Vol. 32, No. 5, pp. 281-298, May 2006.
11. Christine Julien, Jamie Payton, and Gruia-Catalin Roman, "Reasoning about Context-Awareness in the Presence of Mobility", *Electronic Notes in Theoretical Computer Science*, Vol. 97, pp. 259-276, July 2004.
12. Qingfeng Huang, Christine Julien, and Gruia-Catalin Roman, "Relying on Safe Distance to Achieve Strong Partitionable Group Membership in Ad Hoc Networks," *IEEE Transactions on Mobile Computing*, Vol. 3, No. 2, pp. 192-205, April-June 2004.

### BOOK CHAPTERS

13. Nirmalya Roy\*, Sajal K. Das, and Christine Julien, "Resolving and Mediating Ambiguous Contexts in Pervasive Environments," *Smart Healthcare Applications and Services: Developments and Practices*, 2011, Chapter 6, pp. 122-147.
14. Christine Julien and Sanem Kabadayi\*, "Enabling Programmable Ubiquitous Computing Environments: A Middleware Perspective," *Advances in Ubiquitous Computing: Future Paradigms and Directions*, 2008, Chapter 5, pp. 117-149.
15. Adam Pridgen\* and Christine Julien, "SMASH: Modular Security for Mobile Agents," *Software Engineering for Large Scale Multi-Agent Systems V*, R. Choren et al. (editors), Lecture Notes in Computer Science 4408, August 2007, pp. 99-116.
16. Christine Julien and Gruia-Catalin Roman, "Supporting Context-Aware Interaction in Dynamic Multi-Agent Systems (invited paper)," *Environments for Multi-Agent Systems*, D. Weyns et al. (editors), Lecture Notes in Computer Science 3372, February 2005, pp. 168-189.
17. Christine Julien, Jamie Payton, and Gruia-Catalin Roman, "Adaptive Access Control in Coordination-Based Mobile Agent Systems," *Software Engineering for Multi-Agent Systems III*, R. Choren et al. (editors), Lecture Notes in Computer Science 3390, February 2005, pp. 254-271.
18. Gruia-Catalin Roman, Christine Julien, and Amy L. Murphy, "A Declarative Approach to Agent-Centered Context-Aware Computing in Ad Hoc Wireless Environments," (extended version) *Software Engineering for Large-Scale Multi-Agent Systems: Research Issues and Practical Applications*, A. Garcia et al. (editors), Lecture Notes in Computer Science 2603, April 2003, pp. 94-109.

### REFEREED CONFERENCE AND WORKSHOP PAPERS

19. Kevin Boos\*, Chien-Liang Fok\*, Christine Julien, and Miryung Kim. "Brace: An Assertion Framework for Debugging Cyber-Physical Systems," in *Proceedings of the 34<sup>th</sup> International Conference on Software Engineering (New Ideas and Emerging Results)*, May 2012, to appear. **(18% acceptance rate)**
20. N. Agmon, C.-L. Fok, Y. Elmaliah, P. Stone, C. Julien, and S. Vishwanath. "On Coordination in Practical Multi-Robot Patrol," in *Proceedings of the International Conference on Robotics and Automation*, May 2012, to appear. **(40% acceptance rate)**
21. Chien-Liang Fok\*, Maykel Hanna\*, Seth Gee\*, Tsz-Chiu Au, Peter Stone, Christine Julien, and Sriram Vishwanath. "A Platform for Evaluating Autonomous Intersection Management Policies," in *Proceedings of the ACM/IEEE 3<sup>rd</sup> International Conference on Cyber-Physical Systems*, April 2012, to appear.
22. Agoston Petz\*, Angela Hennessy, Brenton Walker, Chien-Liang Fok\*, and Christine Julien. "An Architecture for Context-Aware Adaptation of Routing in Delay-Tolerant Networks," in *Proceedings of the 4<sup>th</sup> Extreme Conference on Communications*, March 2012.

23. Jonas Michel\*, [Christine Julien](#), Jamie Payton, and Gruia-Catalin Roman. "A Spatiotemporal Model for Ephemeral Data in Pervasive Computing Networks," in *Proceedings of the 1<sup>st</sup> International IEEE Workshop on Hot Topics in Pervasive Computing (PerHot, co-located with PerCom)*, March 2012.
24. Evan Grim\*, Chien-Liang Fok\*, and [Christine Julien](#). "Grapevine: Efficient Situational Awareness in Pervasive Computing Environments," in *Proceedings of the IEEE International Conference on Pervasive Computing and Communications (PerCom WiP)*, March 2012.
25. Jonas Michel\*, [Christine Julien](#), Jamie Payton, and Gruia-Catalin Roman. "myGander: A Mobile Interface and Distributed Search Engine for Pervasive Computing," in *Proceedings of the IEEE International Conference on Pervasive Computing and Communications (PerCom Demonstrations)*, March 2012.
26. Jonas Michel\*, [Christine Julien](#), Jamie Payton, and Gruia-Catalin Roman. "Gander: Personalizing Search of the Here and Now," in *Proceedings of the 8<sup>th</sup> International ICST Conference on Mobile and Ubiquitous Systems (MobiQuitous)*, December 2011. **(32% acceptance rate)**.
27. Agoston Petz\*, Chien-Liang Fok\*, [Christine Julien](#), Brenton Walker, and Calvin Ardi, "Network Coded Routing in Delay Tolerant Networks: An Experience Report," in *Proceedings of the 3<sup>rd</sup> Extreme Conference on Communication (ExtremeCom)*, September 2011.
28. Brenton Walker, Calvin Ardi, Agoston Petz\*, Jung Ryu, and [Christine Julien](#), "Experiments on the Spatial Distribution of Network Code Diversity in Segmented DTNs," in *Proceedings of the ACM MobiCom Workshop on Challenged Networks (CHANTS)*, September 2011.
29. [Christine Julien](#), "The Context of Coordinating Groups in Dynamic Mobile Environments," in *Proceedings of the 13<sup>th</sup> International Conference on Coordination Models and Languages (Coordination)*, June 2011, pp. 49-64 **(40% acceptance rate)**.
30. Agoston Petz\*, Taesoo Jun\*, Nirmalya Roy\*, Chien-Liang Fok\*, and [Christine Julien](#), "Passive Network-Awareness for Dynamic Resource-Constrained Networks", in *Proceedings of the 11<sup>th</sup> International IFIP Conference on Distributed Applications and Interoperable Systems (DAIS)*, June 2011, pp. 106-121 **(32% acceptance rate)**.
31. Chien-Liang Fok\*, [Christine Julien](#), Gruia-Catalin Roman, and Chenyang Lu, "Satisfying Multiple Stakeholders: Quality of Service in the Internet of Things," in *Proceedings of the 2<sup>nd</sup> International Workshop on Software Engineering for Sensor Network Applications (SESENA)*, May 2011.
32. Nirmalya Roy\*, Archan Misra, [Christine Julien](#), Sajal Das, and Jit Biswas, "An Energy-Efficient Quality-Adaptive Framework for Multi-Modal Sensor Context Recognition," in *Proceedings of the IEEE International Conference on Pervasive Computing and Communications (PerCom)*, March 2011, pp. 63-73 **(11% acceptance rate, nominated for Mark Weiser Best Paper Award)**.
33. [Christine Julien](#), Vasanth Rajamani\*, Jamie Payton, and Gruia-Catalin Roman, "Fidelity-Based Continuous Query Introspection and Adaptation," in *Proceedings of the PerCom Workshop on Information Quality and Quality-of-Service for Pervasive Computing (IQ2S)*, March 2011, pp. 56-61 **(invited paper)**.
34. Seth Holloway\* and [Christine Julien](#), "The Case for End-User Programming of Ubiquitous Computing Environments," in *Proceedings of the Foundations of Software Engineering and NITR&D/SPD Working Conference on the Future of Software Engineering Research*, November 2010.
35. Jamie Payton and [Christine Julien](#), "Integrating Participatory Sensing in Application Development Practices," in *Proceedings of the Foundations of Software Engineering and NITR&D/SPD Working Conference on the Future of Software Engineering Research*, November 2010.
36. Agoston Petz\*, Brenton Walker, Calvin Ardi, and [Christine Julien](#), "The Click Convergence Layer: Putting a Modular Router under DTN2," in *Proceedings of the 2<sup>nd</sup> Extreme Workshop on Communication*, September 2010. **(Best Student Paper Award)**
37. Taesoo Jun\*, Nirmalya Roy\*, and [Christine Julien](#), "Modeling Delivery Delay for Flooding in Mobile Ad Hoc Networks," in *Proceedings of the IEEE International Conference on Communications*, May 2010.

38. Vasanth Rajamani\* and Christine Julien, "Blurring Snapshots: Temporal Inference of Missing and Uncertain Data," in *Proceedings of the 8<sup>th</sup> Annual IEEE International Conference on Pervasive Computing and Communications*, March-April 2010, pp. 40-50. **(12% acceptance rate)**
39. Nirmalya Roy\*, Vasanth Rajamani\*, and Christine Julien, "Supporting Multi-Fidelity-Aware Concurrent Applications in Dynamic Sensor Networks," in *Proceedings of the 2<sup>nd</sup> International Workshop on Information Quality and Quality of Service for Pervasive Computing*, March 2010 (invited paper).
40. Agoston Petz\* and Christine Julien, "The MaDMAN Middleware for Delay-Tolerant Networks," in *Proceedings of the 11<sup>th</sup> Workshop on Mobile Computing Systems and Applications (HotMobile)*, February 2010, pp. 104.
41. Vasanth Rajamani\* and Christine Julien, "SAMA: Static Analysis for Mobile Applications," in *Proceedings of the 11<sup>th</sup> Workshop on Mobile Computing Systems and Applications (HotMobile)*, February 2010, pp. 103.
42. Nirmalya Roy\*, Kevin M. Brooks, and Christine Julien, "Usability of Semantic Web for Enhancing Digital Living Experience," in *Proceedings of the 2010 IEEE Consumer Communications and Networking Conference – Smart Spaces and Personal Area Networks for CE*, January 2010. **(33% acceptance rate)**
43. Vasanth Rajamani\*, Christine Julien, Jamie Payton, and Gruia-Catalin Roman, "PAQ: Persistent Adaptive Query Middleware for Dynamic Environments," in *Proceedings of the ACM/IFIP/USENIX 10<sup>th</sup> International Middleware Conference*, December 2009. **(19% acceptance rate)**
44. Nirmalya Roy\*, Christine Julien, and Sajal K. Das, "Resource-Optimized Quality-Assured Ambiguous Context Mediation in Pervasive Environments," in *Proceedings of the 6<sup>th</sup> International ICST Conference on Heterogeneous Networking for Quality, Reliability, Security, and Robustness*, November 2009, pp. 232-248. **(50% acceptance rate, Best Paper Award)**
45. Vasanth Rajamani\* and Christine Julien, "Adaptive Data Quality for Persistent Queries in Sensor Networks," in *Proceedings of the 6<sup>th</sup> International ICST Conference on Heterogeneous Networking for Quality, Reliability, Security, and Robustness*, November 2009, pp 131-147. **(50% acceptance rate)**
46. Nirmalya Roy\*, Christine Julien, and Sajal K. Das, "Resolving and Mediating Ambiguous Contexts for Pervasive Care Environments," in *Proceedings of the 6<sup>th</sup> Annual International Conference on Mobile and Ubiquitous Systems: Computing, Networking, and Services*, July 2009.
47. Xiowei Luo, William J. O'Brien, and Christine Julien. "Evaluation of Localization Techniques for the Construction Jobsite," in *Proceedings of Computing in Engineering: EG-ICE Conference 2009, Book Series of the Dept. of Civil Engineering, Technische Universität Berlin, Vol 1*. W. Huhnt (ed), July 2009, pp 202-209.
48. Vasanth Rajamani\*, Christine Julien, and Jamie Payton, "Automated Assessment of Aggregate Query Imprecision in Dynamic Environments," in *Proceedings of 9<sup>th</sup> International Conference on Distributed Applications and Interoperable Systems*, June 2009, pp. 59-72. **(38% acceptance rate)**
49. Nirmalya Roy\*, Archan Misra, Sajal K. Das, and Christine Julien, "Quality-of-Inference (QoINF)-Aware Context Determination in Assisted Living Environments," in *Proceedings of the 1<sup>st</sup> ACM International Workshop on Medical-Grade Wireless Networks*, May 2009, pp. 27-32.
50. Vasanth Rajamani\*, Christine Julien, Jamie Payton, and Gruia-Catalin Roman, "Inquiry and Introspection for Non-Deterministic Queries in Mobile Networks," in *Proceedings of Fundamental Approaches to Software Engineering*, March 2009. **(24% acceptance rate)**
51. Angela Dalton\* and Christine Julien, "Towards Adaptive Resource-Driven Routing," in *Proceedings of the 2009 IEEE International Conference on Pervasive Computing and Communications*, March 2009.
52. Seth Holloway\*, Drew Stovall\*, Jorge Lara-Garduno\*, and Christine Julien, "Opening Pervasive Computing to the Masses Using the SEAP Middleware," in *Proceedings of the IEEE Middleware Support for Pervasive Computing Workshop*, March 2009.

53. Agoston Petz\*, Justin Enderle\*, and Christine Julien, “A Framework for Evaluating DTN Mobility Models,” in *Proceedings of the Workshop on Scenarios for Network Evaluation Studies*, March 2009. **(21% acceptance rate)**
54. Drew Stovall\*, Seth Holloway\*, Jorge Lara-Garduno\*, and Christine Julien, “A Demonstration of Pervasive Device Integration with SEAP-Based Middleware,” in *Proceedings of the 9<sup>th</sup> International Middleware Conference*, December 2008, pp. 62-65.
55. Agoston Petz\* and Christine Julien, “An Adaptive Middleware to Support Delay Tolerant Networking,” in *Proceedings of the 7<sup>th</sup> Workshop on Reflective and Adaptive Middleware*, December 2008, pp 17-22. **(50% acceptance rate)**
56. Drew Stovall\* and Christine Julien, “Rapid Prototyping of Routing Protocols with Evolving Tuples,” in *Proceedings of the 8<sup>th</sup> International Conference on Distributed Applications and Interoperable Systems*, June 2008, pp. 296-301. **(29% acceptance rate)**
57. Seth Holloway\* and Christine Julien, “ROCC: A Communication Overlay Abstraction for Wireless Users,” in *Proceedings of the IEEE International Conference on Distributed Computing Workshops: 2<sup>nd</sup> International Workshop on Cooperative Distributed Systems (CDS)*, June 2008, pp. 435-440. **(65% acceptance rate)**
58. Taesoo Jun\*, Angela Dalton\*, Shreeshankar Bodas, Christine Julien, and Sriram Vishwanath, “Expressive Analytical Model for Routing Protocols in Mobile Ad Hoc Networks,” in *Proceedings of the IEEE International Conference on Communications (ICC)*, May 2008, pp. 2134-2140. **(36% acceptance rate)**
59. Seth Holloway\*, Drew Stovall\*, Angela Dalton\*, and Christine Julien, “So Many Sensors, So Little Data,” in *Proceedings of the International Workshop on Software Architectures and Mobility* (co-located with *ICSE*), May 2008, pp. 53-55.
60. Christine Julien and Dewayne Perry, “Composable Context-Aware Architectural Connectors,” in *Proceedings of the International Workshop on Software Architectures and Mobility* (co-located with *ICSE*), May 2008, pp. 43-45.
61. Angela Dalton\*, Christine Julien, and Carla Ellis, “Enabling Deliberate Design for Energy Management in Pervasive Systems,” in *Proceedings of the Middleware Support for Pervasive Computing Workshop* (co-located with *IEEE PerCom*), March 2008, pp. 520-524.
62. Seth Holloway\*, Alex Griffith\*, Angela Dalton\*, Drew Stovall\*, and Christine Julien, “SASSI: The Sliverware Architecture for Sensor System Integration,” in *Proceedings of the 5<sup>th</sup> ACM Conference on Embedded Networked Sensor Systems*, November 2007, pp. 431-432.
63. Vasanth Rajamani\*, Sanem Kabadayi\*, and Christine Julien, “Query Domains: Grouping Heterogeneous Sensors Based on Proximity,” in *Proceedings of the 3<sup>rd</sup> International Workshop on Heterogeneous Multi-Hop Wireless and Mobile Networks*, November 2007.
64. Jamie Payton, Christine Julien, and Gruia-Catalin Roman, “Automatic Consistency Assessment for Query Results in Dynamic Environments,” in *Proceedings of the Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering*, September 2007, pp. 245—254. **(17% acceptance rate, ACM SIGSOFT Distinguished Paper Award)**
65. Drew Stovall\* and Christine Julien, “Resource Discovery with Evolving Tuples,” in *Proceedings of the International Workshop on Engineering Software Systems for Pervasive Environments* (co-located with *FSE*), September 2007, pp. 1—10.
66. Sanem Kabadayi\*, Christine Julien, William J. O’Brien, and Drew Stovall\*, “Virtual Sensors: A Demonstration,” in the *26<sup>th</sup> Annual IEEE Conference on Computer Communications (Demonstrations)*, 2007. **(50% acceptance rate)**
67. William J. O’Brien, Christine Julien, Joachim Hammer, Sanem Kabadayi\*, and Xiowei Luo, “An Architecture for Local Decision Support in Ad Hoc Sensor Networks,” in *Proceedings of the ASCE 2007 International Workshop on Computing in Civil Engineering*, July 2007, pp. 769—776.

68. Sanem Kabadayi\* and Christine Julien, "A Local Data Abstraction and Communication Paradigm for Pervasive Computing," in *Proceedings of the 5<sup>th</sup> Annual IEEE International Conference on Pervasive Computing and Communications*, March 2007, pp. 57-68. **(10% acceptance rate, nominated for Mark Weiser Best Paper Award)**
69. Taesoo Jun\* and Christine Julien, "Automated Routing Protocol Selection in Mobile Ad Hoc Networks," in *Proceedings of the 22<sup>nd</sup> Annual ACM Symposium on Applied Computing, Mobile Computing and Applications Track*, March 2007, pp. 906-913. **(29% acceptance rate)**
70. Christine Julien, "Adaptive Preference Specifications for Application Sessions," in *Proceedings of the 4<sup>th</sup> International Conference on Service Oriented Computing*, Lecture Notes in Computer Science, volume 4294, December 2006, pp. 78-89. **(17% acceptance rate)**
71. Seth Holloway\* and Christine Julien, "Developing Collaborative Applications Using Sliverware," in *Proceedings of the 14<sup>th</sup> International Conference on Cooperative Information Systems*, Lecture Notes in Computer Science, volume 4275, November 2006, pp. 587-604. **(28% acceptance rate)**
72. Joachim Hammer, Imran Hassan, Christine Julien, Sanem Kabadayi\*, William J. O'Brien, and Jason Trujillo, "Dynamic Decision Support in Direct-Access Sensor Networks: A Demonstration," in *Proceedings of the 3<sup>rd</sup> International Conference on Mobile Ad-Hoc and Sensor Systems (Demonstrations)*, October 2006. **(33% acceptance rate)**
73. Christine Julien and Meenakshi Venkataraman\*, "Cross-Layer Discovery and Routing in Reconfigurable Wireless Networks," in *Proceedings of the 3<sup>rd</sup> International Conference on Mobile Ad-Hoc and Sensor Systems*, October 2006, pp. 119-128. **(25% acceptance rate)**
74. Christine Julien and Drew Stovall\*, "Enabling Ubiquitous Coordination Using Application Sessions," in *Proceedings of the 8<sup>th</sup> International Conference on Coordination Models and Languages*, June 2006, pp. 130-144. **(36% acceptance rate)**
75. Sanem Kabadayi\*, Adam Pridgen\*, and Christine Julien, "Virtual Sensors: Abstracting Data from Physical Sensors," in *Proceedings of the 4<sup>th</sup> International Workshop on Mobile and Distributed Computing*, June 2006, pp. 587-592. **(36% acceptance rate)**
76. Adam Pridgen\* and Christine Julien, "A Secure Modular Mobile Agent System," in *Proceedings of the 5<sup>th</sup> International Workshop on Software Engineering for Large-Scale Multi-Agent Systems (co-located with ICSE)*, May 2006, pp. 67-73.
77. Raghavan Srinivasan\* and Christine Julien, "Passive Network Awareness for Adaptive Mobile Applications," in *Proceedings of the 3<sup>rd</sup> International Workshop on Managing Ubiquitous Communications and Services (co-located with Pervasive)*, May 2006, pp. 222-31.
78. Christine Julien, Joachim Hammer, and William J. O'Brien, "A Dynamic Programming Framework for Pervasive Computing Environments," in *Proceedings of the Workshop on Building Software for Pervasive Computing (co-located with OOPSLA)*, October 2005.
79. Gregory Hackmann, Christine Julien, Jamie Payton, and Gruia-Catalin Roman, "Supporting Generalized Context Interactions," in *Software Engineering and Middleware: 4<sup>th</sup> International Workshop, Revised Selected Papers*, T. Gschwind and C. Mascolo (editors), Lecture Notes in Computer Science, volume 3437, March 2005, pp. 91-106. **(35% acceptance rate)**
80. Christine Julien, Jamie Payton, and Gruia-Catalin Roman, "Context-Sensitive Access Control for Open Mobile Agent Systems," in *Proceedings of the 3<sup>rd</sup> International Workshop on Software Engineering for Large-Scale Multi-Agent Systems (co-located with ICSE)*, May 2004.
81. Jamie Payton, Gruia-Catalin Roman, and Christine Julien, "Context-Sensitive Data Structures Supporting Software Development in Ad Hoc Mobile Settings," in *Proceedings of the 3<sup>rd</sup> International Workshop on Software Engineering for Large-Scale Multi-Agent Systems (co-located with ICSE)*, May 2004.
82. Gruia-Catalin Roman, Christine Julien, and Jamie Payton, "A Formal Treatment of Context-Awareness," in *Proceeding of the 7<sup>th</sup> International Conference on Fundamental Approaches to Software Engineering*, Lecture Notes in Computer Science, volume 2984, March 2004, pp. 12-16. **(invited paper)**

83. Christine Julien and Gruia-Catalin Roman, "Active Coordination in Ad Hoc Networks," in *Proceedings of the 6<sup>th</sup> International Conference on Coordination Models and Languages*, February 2004, pp. 199-215. **(28% acceptance rate)**
84. Radu Handorean, Jamie Payton, Gruia-Catalin Roman, and Christine Julien, "Coordination Middleware Supporting Rapid Deployment of Ad Hoc Mobile Systems," in *Proceedings of the 1<sup>st</sup> International ICDCS Workshop on Mobile Computing Middleware* (co-located with ICDCS), May 2003.
85. Christine Julien and Gruia-Catalin Roman, "Egocentric Context-Aware Programming in Ad Hoc Mobile Environments," in *Proceedings of the 10<sup>th</sup> International Symposium on the Foundations of Software Engineering (FSE-10)*, November 2002, pp. 21-30. **(13% acceptance rate)**
86. Gruia-Catalin Roman, Christine Julien, and Qingfeng Huang, "Network Abstractions for Context Aware Mobile Computing," in *Proceedings of the 24<sup>th</sup> International Conference on Software Engineering (ICSE)*, May 2002, pp. 363-373. **(15% acceptance rate)**
87. Gruia-Catalin Roman, Christine Julien, and Amy L. Murphy, "A Declarative Approach to Agent-Centered Context-Aware Computing in Ad Hoc Wireless Environments," in *Proceedings of the 1<sup>st</sup> International Workshop on Software Engineering for Large-Scale Multi-Agent Systems* (co-located with ICSE), May 2002.
88. Gruia-Catalin Roman, Christine Julien, and Qingfeng Huang, "Formal Specification and Design of Mobile Systems," in *Proceedings of the 7<sup>th</sup> International Workshop on Formal Methods for Parallel Programming: Theory and Applications*, April 2002.

## GRANTS AND CONTRACTS

<b>Project Title</b>	<b>Source</b>	<b>Grant Total</b>	<b>My Share</b>
SGER: Enabling Truly Pervasive Computing: Communications Meets Software Engineering (9/2006—8/2008), sole PI	NSF	\$200,000	\$200,000
Computer Science Study Group (4/2006—12/2006), sole PI	DARPA	\$87,328	\$87,328
Context-Aware Data-Driven Communication for Mobile Applications (6/2006—7/2006), sole PI	UT-SRA	\$22,678	\$22,678
Cooperative Communication and Architectures for Cross-Layer Coordination (6/2006—12/2006), co-PI (with Scott Nettles, PI)	DARPA	\$118,401	\$61,329
ACLI-Ware: Dynamic Data Driven Control For Wireless Implemented Application Systems (7/2006—6/2008), PI (with Sriram Vishwanath, co-PI)	NSF	\$75,000	\$37,500
Adaptive Application-Centered Communication in Mobile and Pervasive Computing (9/2006—8/2009), sole PI	NSF	\$239,999	\$239,999
Educating a Competitive, Cyberinfrastructure Savvy Engineering and Construction Workforce (9/2006—8/2008), co-PI (with William J. O'Brien, PI and Kathy Schmidt, co-PI)	NSF	\$250,000	\$102,728
Adaptive Coordination for Dynamic Mobile Systems (Young Investigator Award) (1/2007—12/2009), sole PI	AFOSR	\$366,201	\$366,201

Middleware Abstractions for Network-Centric Communication (3/2007—2/2008), sole PI	DARPA	\$472,977	\$472,977
MPC Reference Solutions Lab (3/2007), sole PI	Freescale	\$25,000	\$25,000
Mobile, Distributed and Pervasive Computing Research Test Bed (6/2007—6/2008), PI (with Sriram Vishwanath, co-PI)	AFOSR	\$380,250	\$190,125
Cross-Layer Architectures for Delay-Tolerant Networks (9/2007—12/2010), PI (with Sanjay Shakkottai and Sriram Vishwanath, co-PI)	DoD	\$791,186	\$263,729
CI-TEAM Implementation: Educating a Competitive, Cyberinfrastructure Savvy Engineering Construction Workforce (5/2008—4/2010), co-PI (with William J. O'Brien, PI, Kathy Schmidt, co-PI, and Randolph Bias, co-PI)	NSF	\$1 million	\$166,563
CAREER: Opportunistic Middleware for Delay-Tolerant Networks (6/2009—5/2014), sole PI	NSF	\$400,000	\$400,000
Computer Science Study Group: Network-Centric Capture, Storage, and Distribution in Sensor Networks (3/2009—11/2009), sole PI	AFOSR	\$114,377	\$114,377
Computer Science Study Group: Network-Centric Capture, Storage, and Distribution in Sensor Networks (matching grant) (4/2009—3/2010), sole PI	DARPA	\$114,377	\$114,377
Cross-Layer Architectures for Delay-Tolerant Networks (Phase 2) (1/2011—12/2012), PI (with Sanjay Shakkottai and Sriram Vishwanath, co-PI)	DoD	\$249,377	\$83,186
<b>Total</b>		\$4,907,151	\$2,948,097

## SCHOLARLY PRESENTATIONS

<b>Date</b>	<b>Presentation</b>
9/22/2011	<i>Research in Mobile and Pervasive Computing</i> Invited Talk at the University of Trento, Italy
6/8/2011	<i>The Context of Coordinating Groups in Dynamic Mobile Environments</i> COORDINATION, Reykjavik, Iceland
5/22/2011	<i>Keynote: Predictability of Software Driven Sensor Networks</i> ICSE Workshop on Software Engineering for Sensor Network Applications
5/22/2011	<i>Satisfying Multiple Stakeholders: Quality of Service in the Internet of Things</i> ICSE Workshop on Software Engineering for Sensor Network Applications
5/26/2009	<i>Network-Centric Capture, Storage, and Distribution in Sensor Networks</i> AFOSR Systems and Software Workshop, Arlington, VA
2/18/2009	<i>Context and Communication Fidelity in Dynamic Systems</i> AFOSR Complex Networks Workshop, Arlington, VA
6/15/2008	<i>ROCC: A Communication Overlay Abstraction for Wireless Users</i> CDS, Beijing, China

- 1/24/2008 *Adaptive Coordination of Dynamic Mobile Systems*  
AFOSR Complex Networks Workshop, Arlington, VA
- 12/14/2006 *Enabling Programmable Pervasive Computing Environments*  
Duke University, invited talk
- 12/5/2006 *Adaptive Preference Specifications for Application Sessions*  
ICSOC, Chicago, IL
- 10/11/2006 *Cross-Layer Discovery and Routing in Reconfigurable Wireless Networks*  
MASS, Vancouver, Canada
- 6/15/2006 *Enabling Ubiquitous Coordination Using Application Sessions*  
Coordination, Bologna, Italy
- 4/13/2006 *Ubiquitous Computing Middleware: Application Sessions for Dynamic Environments*  
EDGE, The University of Texas at Austin
- 10/16/2005 *A Dynamic Programming Framework for Pervasive Computing Environments*  
Pervasive@OOPSLA, San Diego, CA
- 10/8/2004 *Context-Aware Middleware for Mobile Ubiquitous Computing*  
Grace Hopper Celebration of Women in Computing, invited panel, Chicago, IL
- 5/24/2004 *Context-Sensitive Access Control for Open Multi-Agent Systems*  
SELMAS, Edinburgh, Scotland
- 2/26/2004 *Adaptive Coordination in Ad Hoc Networks*  
Coordination, Pisa, Italy
- 9/2/2003 *Reasoning about Context-Awareness in the Presence of Mobility*  
FOCLASA, Marseille, France
- 4/1/2003 *Context-Awareness and Coordination in Mobile Environments*  
ONR-MURI Grant Review, Philadelphia, PA
- 11/20/2002 *Egocentric Context-Aware Programming in Ad Hoc Mobile Environments*  
FSE, Charleston, SC
- 5/23/2002 *Network Abstractions for Context-Aware Mobile Computing*  
ICSE, Orlando, FL

**M.S. SUPERVISIONS COMPLETED**

<b>Name</b>	<b>Year</b>	<b>Thesis Title</b>
Enderle, Justin	2011	<i>A Routing Architecture for Delay Tolerant Networks</i>
Petz, Agoston	2008	<i>An Adaptive Middleware to Support Delay Tolerant Networking</i>
Baba, Varun	2007	<i>Impact of Mobility Model on Delay Tolerant Network Simulations</i>
Holloway, Seth	2007	<i>Sliverware: A Framework for Developing Collaborative Applications</i>
Rajamani, Vasanth	2007	<i>Query Domains: Grouping Heterogeneous Sensors Based on Proximity</i>
Srinivasan, Raghavan	2007	<i>A Passive Metric Suite for Mobile Ad-Hoc Networks</i>
Pridgen, Adam	2007	<i>A Security Based Mobile Agent System</i>
Venkataraman, Meenakshi	2006	<i>Cross-Layer Discovery and Routing in Mobile Ad Hoc Networks</i>



**ADMINISTRATIVE AND COMMITTEE SERVICE***Departmental Administrative Committees*

- ECE Faculty Recruiting Committee Member (2011-present)
- ECE Faculty Expectations Committee Member (2011-present)
- ECE Curriculum Committee Member (2011-present)
- ECE Colloquium Committee Member (2011-present)
- Software Engineering Graduate Area Advisor (2010-present)
- Software Engineering Graduate Coordinator (2010-present)
- Software Engineering Graduate Recruiting Chair (2008-present)
- Software Engineering Graduate Admissions Committee (2008-present), Chair (2010-present)
- Computer Engineering Curriculum Committee (2004-2010)
- Computer Engineering Graduate Admissions Committee (2004-present)
- ECE Graduate Studies Committee (2004-present)
- ECE Appeals Committee (2006-present)
- ECE Department Chair Review Committee (2005-2006)

*University Service*

- Women in ECE Faculty Advisor (2010-present)
- Edison Lecture Series: Presenter (annually, 2005-present), Organizer (2010-present)
- Grace Hopper Celebration of Women in Computing: organized conference trip for graduate and undergraduate women in computing (Fall 2007, Fall 2008)
- Presenter: The University of Texas at Austin Honors Colloquium (summer program), MITE: Introduction to Engineering (summer program), Women in Engineering Program “Consider Every Option” (pre-college program, Women in Engineering Program “Graduates Linked with Undergraduates in Engineering” (faculty panel) (2005-present)

**PROFESSIONAL SOCIETY MEMBERSHIPS, COMMITTEES, AND GOVERNMENTAL COMMITTEES***Professional Society Memberships*

- Association for Computing Machinery (ACM) Member (2004-present)
- Institute for Electrical and Electronic Engineers (IEEE) Member (2005-present)
- ACM SIGSOFT Member (2005-present)
- IEEE Computer Society Member (2005-present)

*Technical Committee Membership*

- IEEE International Conference on Pervasive Computing and Communications (PerCom), Vice Program Chair (2013)
- 20<sup>th</sup> International Symposium on the Foundations of Software Engineering, Technical Program Committee Member (2012)
- 20<sup>th</sup> International Symposium on the Foundations of Software Engineering, New Ideas and Emergent Results Track, Technical Program Committee Member (2012)
- International Conference on Coordination Models and Languages (Coordination), Technical Program Committee Member (2012)
- 3<sup>rd</sup> International Workshop on Software Engineering for Sensor Network Applications (SESNA), Technical Program Committee Member (2012)
- IEEE International Conference on Pervasive Computing and Communications (PerCom), Technical Program Committee Member (2012)
- IEEE International Conference on Pervasive Computing and Communications (PerCom), PhD Forum Program Committee Member (2012)
- 4<sup>th</sup> Extreme Conference on Communications (ExtremeCom), Technical Program Committee Member (2012)
- International ICST Conference on Mobile and Ubiquitous Systems (Mobiquitous), Technical Program Committee Member (2011)
- IEEE International Conference on Pervasive Computing and Communications (PerCom), PhD Forum Organizer (2011)

- 18<sup>th</sup> ACM SIGSOFT International Symposium on the Foundations of Software Engineering Program Committee Member (2010)
- 31<sup>st</sup> International Conference on Software Engineering, Doctoral Symposium Program Committee Member (2009)
- 1<sup>st</sup> International Workshop on Cooperation in Pervasive Environments (CoPE), Program Committee Member (2009)
- 6<sup>th</sup> International Conference on Mobile Systems, Applications, and Services (MobiSys), Program Committee Member (2008)
- 34<sup>th</sup> Euromicro Conference on Software Engineering and Advanced Applications, Special Session on Software Architectures for Pervasive Systems (SAPS), Program Committee Member (2008)
- 1<sup>st</sup> International Workshop on Software Architectures and Mobility (SAM), Program Committee Member (2008)
- 14<sup>th</sup> ACM/SIGSOFT Symposium on the Foundations of Software Engineering (FSE), Poster Selection Committee Member (2006)
- Workshop on Software Engineering Challenges for Ubiquitous Computing, Program Committee Member (2006)
- International Workshop on Combining Theory and Systems Building in Pervasive Computing, Program Committee Member (2006)
- IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing, Program Committee Member (2006)

*Government Panels and Reviewing*

- Member of NSF Proposal Review Panels (2005-present)
- Air Force Office of Sponsored Projects Proposal Reviewer (2008-present)

**HONORS AND AWARDS**

- Temple Foundation Faculty Fellowship (2010)
- National Science Foundation Early CAREER award (2009)
- IEEE Recognized Faculty, UT Austin IEEE Chapter (2008, student elected)
- Option III Software Engineering Program Outstanding Faculty Award (F2007, Sp2008, F2008, Sp 2009, student elected)
- Air Force Office of Scientific Research Young Investigator Award (2007)
- ACM/SIGSOFT Distinguished Paper Award (2007)
- Defense Advanced Research Projects Agency Computer Science Study Group (2006-2010)
- National Science Foundation Graduate Research Fellowship (2001-2004)