

## DAVID MENDONÇA

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### APPOINTMENTS

- 2006– *Associate Professor*, Information Systems Department, New Jersey Institute of Technology, Newark, NJ
- 2001–2006 *Assistant Professor*, Information Systems Department, New Jersey Institute of Technology, Newark, NJ

### VISITING AND COURTESY APPOINTMENTS

- 2008-2009 *Visiting Researcher*, Department of Informatics, University of Lisbon, Portugal
- 2007 *Visiting Professor*, Faculty of Technology, Policy and Management, Delft University of Technology, Delft, The Netherlands  
(May–Dec.)
- 2001– *Faculty Member*, Rutgers School of Business, Newark, NJ (Courtesy Appointment)
- 1999 *Visiting Scholar*, Faculty of Technology, Policy and Management, Delft University of Technology, Delft, The Netherlands  
(May-Aug)

### PROFESSIONAL PREPARATION

- |        |                                        |                                           |      |
|--------|----------------------------------------|-------------------------------------------|------|
| Ph. D. | Rensselaer Polytechnic Institute       | Decision Sciences and Engineering Systems | 2001 |
| M. S.  | Carnegie Mellon University             | Public Policy and Management              | 1994 |
| B. A.  | University of Massachusetts at Amherst | English                                   | 1990 |

### HONORS AND AWARDS

- National Science Foundation CAREER Award, 2005–2010
- Doctoral Consortium Fellow, *International Conference on Information Systems*, 2000
- Rensselaer Scholar Fellow, Rensselaer Polytechnic Institute, 1995–96
- Chauncey and Doris Starr Fellow, Rensselaer Polytechnic Institute, 1995–96
- W.W. Cooper Merit Scholar, Carnegie Mellon University, 1992–94
- Member, *Alpha Pi Mu*, the Industrial Engineering Honor Society

## RESEARCH SUMMARY

My research examines the cognitive processes underlying individual and group decision making in high stakes, time-pressured conditions, predominantly in the domains of emergency response and critical infrastructure management. This research has employed data collected from laboratory, field and archival sources, leading to statistical and computational models, as well as to systems that support cognition and learning in the target domains.

## PUBLICATIONS

Available papers are located in the directory <http://web.njit.edu/~mendonca/papers> under the file names given below.

## REFEREED JOURNAL PUBLICATIONS

Mendonça, D., G. Webb, C. Butts (forthcoming). "Improvisation in Emergency Response: Linking Cognition, Behavior and Social Interaction." *Tracés*.

Chakrabarty, M. and D. Mendonça (forthcoming). "Information Visualization in Scientific Research: Evidence from Top Journals in Computing and Related Sciences." *Journal of Information Technology Theory and Application*.

Mendonça, D., P. Chang, Y. Hu, Q. Gu (forthcoming), "Simulation, Shared Spaces and Information Management to Support Discovery and Learning: An Application in Emergency Management." *Computer Applications in Engineering Education*.

LaContora, J. and D. Mendonça (forthcoming). "Performance Support Systems in Learning Environments: An Application to Engine Diagnostics." *International Journal of Innovation and Learning*.

Mendonça, D., J. Harrald and T. Jefferson (2007). "Emergent Interoperability: Collaborative Adhocracies and Mix and Match Technologies in Emergency Management." *Communications of the ACM*, 50(3) 45–49.

Mendonça, D. and W. A. Wallace (2007). "A Cognitive Model of Improvisation in Emergency Management." *IEEE Systems, Man and Cybernetics: Part A*, 37(4) 547 - 561 (improvmodel.pdf).

Mendonça, D. (2007). "Decision Support for Improvisation in Response to Extreme Events." *Decision Support Systems* 43(3) 952–967 (xedss.pdf).

Mendonça, D. and W. A. Wallace (2006). "Impacts of the 2001 World Trade Center Attack on New York City Critical Infrastructures." *Journal of Infrastructure Systems* 12(4) 260-270 (wtcimpacts.pdf).

Mendonça, D. and F. Fiedrich (2006). "Training for Improvisation in Emergency Management: Opportunities and Limits for Information Technology," *International Journal of Emergency Management* 3(4) 348-363 (improvtrain.pdf).

Mendonça, D., G. E. G. Beroggi, D. van Gent and W. A. Wallace (2006). "Assessing Group Decision Support Systems for Emergency Response Using Gaming Simulation." *Safety Science* 44(6) 523-535 (gdsser.pdf).

Mendonça, D. and W. A. Wallace (2004). "Studying Organizationally-Situated Improvisation in Response to Extreme Events." *International Journal of Mass Emergencies and Disasters* 22 (2) 5–29 (osi.pdf).

Mendonça, D., G. E. G. Beroggi and W. A. Wallace (2001). "Decision Support for Improvisation During Emergency Response Operations." *International Journal of Emergency Management* 1 (1) 30–38 (impero.pdf).

Mendonça, D. and M. Raghavachari (2000). "Comparing the Efficacy of Ranking Methods for Multiple Round-robin Tournaments." *European Journal of Operational Research* 123 (3) 593–605 (ranking.pdf).

Mendonça, D., R. Rush and W. A. Wallace (2000). "Timely Knowledge Elicitation from Geographically Separate, Mobile Experts During Emergency Response." *Safety Science* 35 (1–3) 193–208 (timely.pdf).

#### **JOURNAL SUBMISSIONS UNDER REVIEW OR REVISION**

Mendonça, D., G. Webb and C. Butts. "Cognitive Foundations of Improvisation in Response to Disaster: The Cases of the Murrah Building and the World Trade Center." Under revision for resubmission.

Mendonça, D. and Q. Gu. "Group Information Foraging during Emergency Response: A Process View." Under first revision.

#### **JOURNAL SUBMISSIONS IN PREPARATION**

Mendonça, D. and B. Osatuyi. "Group Information Foraging under Time Constraint: An Application to Emergency Response Organizations."

Mendonça, D. and W.A. Wallace. "Adaptive Capacity: Electric Power Restoration in New York City following the 11 September 2001 Attacks."

Mendonça, D. "Risk/Reward Tradeoffs: Evidence from the Ground Zero Cleanup Operations."

Chakrabarty, M. and D. Mendonça. "Search with Informationally Equivalent but Visually Different Diagrams."

Mendonça, D. and P. Venkatraman. "Acquiring and Validating Knowledge for Ontologies: A Survey of Published Practices."

#### **REFEREED CONFERENCE PUBLICATIONS**

Cirik, A. and D. Mendonça (2009). "Responding to Disaster in Complex Socio-technical Systems: Two Case Studies." *IEEE International Conference on Systems, Man and Cybernetics*, 11-14 October, San Antonio, TX.

Mendonça, D. and Y. Hu (2009). "Group Decision Making in Simulated Emergency Response." *Human Factors and Ergonomics Society Conference*, 19-23 October, San Antonio, TX.

Mendonça, D. and Y. Hu (2008). "Group Solution Assembly in Response to a Simulated Emergency." *Cognitive Science Conference*, 23-26 July, Washington, DC.

Mendonça, D. and W.A.G.A. Bouwman (2008). "Information and Communications Technology for Crisis Management: Defining an Agenda for Scientific Research." *Next Generation Infrastructures Conference*, Delft, The Netherlands.

Mendonça, D., Y. Hu and Q. Gu (2007) "Cognitive-level Support for Improvisation in Emergency Response." *Information Systems for Crisis Response and Management Conference*.

Mendonça, D. and W.A. Wallace (2006). "Adaptive Capacity: Electric Power Restoration in New York City following the 11 September 2001 Attacks." *2nd International Symposium on Resilience Engineering*, Nice, France, 8–10 November 2006.

Mendonça, D., D. Peraza and P. Stefan (2005). "Innovation, Risk and Reward during Debris Removal at Ground Zero." *American Society of Civil Engineers Structures Congress*, New York, NY, 20–24 April (irr.pdf).

Gu, Q. and D. Mendonça (2004). "Patterns of Group Information-seeking in a Simulated Emergency Response Environment." *Information Systems for Crisis Response and Management Conference*, Brussels, Belgium, 18–20 April.

Chakrabarty, M. and D. Mendonça (2004). "Design considerations for information systems to support critical infrastructure management." *Information Systems for Crisis Response and Management Conference*, Brussels, Belgium, 18–20 April.

Chang, P., D. Mendonça, X. Yao and M. Raghavachari (2004). "An Evaluation of Ranking Methods for Multiple Incomplete Round-robin Tournaments." *Decision Sciences Institute Annual Meeting*, Boston, MA, 20–23 December (rankeval.pdf).

Chakrabarty, M. and D. Mendonça (2004). "Integrating Visual and Mathematical Models for the Management of Interdependent Critical Infrastructures." *IEEE International Conference on Systems, Man and Cybernetics*, The Hague, The Netherlands, 10–13 October (vizcii.pdf).

Mendonça, D. and W. A. Wallace (2004b). "Cognition in Jazz Improvisation: An Exploratory Study." *Cognitive Science Society Annual Meeting*, Chicago, IL, 5–8 August (jazzimp.pdf).

Hendela, A. and D. Mendonça (2004). "Innovation in Demolition: A Case Study from the Cleanup of Ground Zero." *Americas Conference on Information Systems*, New York, NY, 5–8 August (iidgz.pdf).

Chang, P., D. Mendonça and I. Im (2004). "Inside the Customer: Modeling Cognition during Online Shopping." *Americas Conference on Information Systems*, New York, NY, 5–8 August (cogshop.pdf).

Mendonça, D. and F. Fiedrich (2004). "Design for Improvisation in Computer-based Emergency Response Systems." *Information Systems for Crisis Response and Management Conference*, Brussels, Belgium, 3–4 May (dfimprov.pdf).

Gu, Q., D. Mendonça and D. Wu (2003). "An Exploration of Information-Seeking Behavior in Emergency Management." *IEEE International Conference on Systems, Man and Cybernetics*, Washington, DC, 5–8 October (infoseek.pdf).

Venkataraman, P. and D. Mendonça (2003). "Using Process Data to Populate Ontologies." *IEEE International Conference on Systems, Man and Cybernetics*, Washington, DC, 5–8 October (proconto.pdf).

Mendonça, D., G. E. G. Beroggi and W. A. Wallace (2003). "Evaluating Support for Improvisation in Simulated Emergency Scenarios." *Hawaii International Conference on System Sciences (HICSS-36)*, Big Island, HI, 6–9 January (impsupport.pdf).

Mendonça, D. and W. A. Wallace (2002). "Development of a Decision Logic to Support Group Improvisation: An Application to Emergency Response." *Hawaii International Conference on System Sciences (HICSS-35)*, Big Island, HI, 7–10 January (implogic.pdf).

Mendonça, D., G. E. G. Beroggi and W. A. Wallace (1999). "Decision Support for Improvisation During Emergency Response Operations." *The International Emergency Management Society Conference*, Delft, The Netherlands, 8–11 June (dssimp.pdf).

#### **NON-REFEREED CONFERENCE PAPERS**

Gu, Q. and D. Mendonça (2006). "Group Information Foraging In Emergency Response: An Illustration Incorporating Discrete-Event Simulation." *Winter Simulation Conference*, Monterey, CA, 3–6 December (Invited Paper).

Lee II, E., W. A. Wallace, J. Mitchell and D. Mendonça, (2005). "Decision technologies for protection of critical infrastructures." *Working Together: R&D Partnerships in Homeland Security*. Boston, 26–28 April.

Mendonça, D., E. Lee II and W. A. Wallace (2004). "Impact of the 2001 World Trade Center Attack on Critical Interdependent Infrastructures." *IEEE International Conference on Systems, Man and Cybernetics*, The Hague, The Netherlands, 10–13 October.

Lacontora, J. and D. Mendonça (2003). "Communities of Practice as Learning and Performance Support Systems." *IEEE International Conference on Information Technology, Research and Education*, Newark, NJ, 10–13 August.

#### **REFEREED BOOK CHAPTERS**

Mendonça, D. and Y. Hu (2009). "Cognitive Underpinnings of Resilience: A Case Study of Group Decision in Emergency Response," in *Resilience Engineering Perspectives (v. 2)*. C. Nemeth (Ed.). Ashgate Publishing Ltd., Aldershot, England (cogres.pdf).

Gu, Q. and D. Mendonça (2008). "Group Information-seeking Behavior in Emergency Response: An Investigation of Expert/Novice Differences," in *Real Time and Deliberative Decision Making*, Linkov, I., E. Ferguson, V.S. Magar (Eds.), Springer.

Mendonça, D. (2008). "Measures of Resilient Performance," in *Remaining Sensitive to the Possibility of Failure*. E. Hollnagel, C. Nemeth, S. Dekkers (Eds.). Ashgate Publishing Ltd., Aldershot, England.

Mendonça, D. and Y. Hu (2006). "Hurricane Katrina Debris Removal Operations: The Role of Communication and Computing Technologies," in *Learning from Catastrophe, Quick Response Research in the Wake of Hurricane Katrina*. Natural Hazards Research & Applications Information Center, University of Colorado, Boulder, CO.

Wallace, W. A., D. Mendonça, E. Lee, J. Mitchell and J. Chow (2003). "Managing Disruptions to Critical Interdependent Infrastructures in the Context of the 2001 World Trade Center Attack," in *Beyond September 11th: An Account of Post-Disaster Research*, J. Monday (Ed.), Natural Hazards Research & Applications Information Center, Public Entity Risk Institute, and Institute for Civil Infrastructure Systems. Special Publication #39. University of Colorado, Boulder, CO, pp. 165–198 (ciimgt.pdf).

Beroggi, G. E. G., D. Mendonça and W. A. Wallace (2003). "Operational Sustainability Management for the Infrastructure: The Case of Emergency Response," in *Systems Engineering and Management for*

*Sustainable Development*, Andrew P. Sage (Ed.), in *Encyclopedia of Life Support Systems*, EOLSS Publishers, Oxford, UK, <http://www.eolss.net> (opsust.pdf).

Chopra, K., D. Mendonça, R. Rush and W. A. Wallace (2000). "Acquiring and Assessing Knowledge from Multiple Experts Using Graphical Representations," in *Knowledge-based Systems Vol. I: Techniques and Applications*, Cornelius T. Leondes (Ed.), Academic Press, San Diego, CA, pp. 293–326.

#### **OTHER PUBLICATIONS**

Mendonça, D., Q. Gu, J. Osatuyi (2009). "Group Information Foraging in Emergency Response." Collaborative Information Behavior Workshop, *ACM GROUP 2009 Conference*.

Mendonça, D. and B. Van de Walle (2008). "Research Methods in Emergency Management: Introduction to the Special Issue." *International Journal of Emergency Management*, 5(1/2) 1–6.

Mendonça, D., C. Butts and G. Webb (2007). "Creativity and Improvisation after 9/11 and 11/9: Learning from the Response to Two Extreme Events." *Contingency Today*.

Mendonça, D. and F. Fiedrich (2006). "How To Design Information Technology for Planned and Improvised Response: A Research Perspective." *International Association of Emergency Managers Bulletin*, 23(7) p. 30.

Gu, Q. and D. Mendonça (2004) "Group Information-seeking Behavior in Emergency Response: An Exploratory Study." *International Conference on Information Systems Workshop: Information Systems–Cognitive Research Exchange*, Washington, DC, 12 December (isbCore.pdf).

Mendonça, D. and W. A. Wallace (2004). "Electric Power Restoration in Lower Manhattan after 11 September 2001." Summary report to *The National Commission on Terrorist Attacks Upon the United States*, 28 June.

Mendonça, D. (2003). "Decision Support for Improvisation: Prospects, Challenges and Opportunities." *International Conference on Information Systems Workshop: Research Directions on Decision Support*, Seattle, WA, 14 December (impchal.pdf).

Wallace, W. A., J. Chow and D. Mendonça (2001). "Impact of the World Trade Center Disaster on Critical Infrastructure Interdependencies." *Learning From Disasters: National Science Foundation Response And Opportunities For Future Research Workshop*, Institute for Civil Infrastructure Systems, New York University, New York, NY, 12–13 December.

## OTHER RESEARCH ACTIVITIES

### DOCTORAL THESIS ADVISEMENT

Principal thesis advisor for the following NJIT students:

- Chakrabarty, M.: *Visualization and Visual Tools for the Management of Complex Systems* (defense completed in Fall 2009).
- Cirik, A.: *Cognitive Dynamics in Emergency Response* (proposal in preparation)
- Chang, P.: *Customer Cognition and Behavior in Online Shopping Environments* (dissertation completed in Spring 2007)
- Hu, Y.: *A Computational Model of Improvisation in Emergency Response* (proposal completed in Summer 2009).
- Lacontora, J.: *Live, Virtual and Constructive Environments for Performance Support* (dissertation completed Fall 2004).
- Osatuyi, B. *Information Foraging in Emergency Response Organizations* (proposal in preparation).

Thesis committee member for E. Kim, B. Ngugi, S. Sabet and X. Zhou (all NJIT), and A. Adrot (Georgia State Univ.).

### GRANTS AWARDED

*PI:* U. Krogman; *Co-PI:* C. Andrews; *Investigators:* J. Amara, W. Huang, G. Kiss, G. Mainelis, D. Mendonça, M. Raman, R. Wener. "Self-sufficient Urban Buildings," National Science Foundation Grant BES-0725503, \$1,813,112, 1 September 2007–31 August 2012.

*PI:* D. Mendonça, *Co-PIs:* C. Butts, G. Webb. "Agents of Change: Improvisation in Emergency Response: Linking Cognition, Behavior and Social Interaction," National Science Foundation Grant CMS-0624257, \$710,000, 1 October 2006–30 September 2010.

*PI:* D. Mendonça. "CAREER: Improvisation in Response to Extreme Events." National Science Foundation Grant CMS-0449582, 15 January 2005–14 January 2010, \$400,000.

*PI:* M. Haselkorn; *Co-PIs:* R. Larson, D. Mendonça. "Humanitarian Service Science and Engineering Workshop," National Science Foundation Grant CMMI-0738733, \$44,230, 1 July 2007–1 January 2008.

*PI:* D. Mendonça. "International Research and Education in Engineering: Improvisation in Response to Extreme Events," National Science Foundation Grant CMS-0637118, \$20,000, 1 May 2006–31 August 2006.

*PI:* D. Mendonça. "Small Grant for Exploratory Research: Hurricane Katrina Debris Removal Operations: The Role of Communication and Computing Technologies," National Science Foundation Grant CMS-0553080, \$14,611, duration 1 October 2005–30 September 2006.

*PI:* W. A. Wallace, *Co-PIs:* D. Mendonça, J. Mitchell. "Decision Technologies for Managing Critical Infrastructure Interdependencies." National Science Foundation Grant CMS-0301661, 15 August 2003–31 January 2006, \$399,742.

*PI:* W. A. Wallace, *Co-PIs:* J. Chow, D. Mendonça. "Small Grant for Exploratory Research: Impact of the World Trade Center Disaster on Critical Infrastructure Interdependence." National Science Foundation Grant CMS-0139306, 1 October 2001–30 September 2003, \$70,000.

PI: D. Mendonça. "Course Development: Geographic Information Systems." New Jersey Information Technology Opportunities for the Workforce, Education and Research (NJ I-Tower), September 2000–May 2001.

#### **COLLABORATORS**

G. E. G. Beroggi, A. Boin, C. Butts, M. Chakrabarty, P. Chang, K. Chopra, J. Chow, F. Fiedrich, Q. Gu, J. Harrald, A. Hendela, T. Jefferson, J. Lacontora, E. Lee, J. E. Mitchell, D. Peraza, M. Raghavachari, R. Rush, P. Stefan, D. van Gent, P. Venkataraman, W. A. Wallace, G. Webb, X. Yao.

#### **TEACHING ACTIVITIES**

##### **COURSES DEVELOPED AND TAUGHT**

*Quantitative Methods in Information Systems Research* (IS 768): core Ph.D.-level course in conduct and quantitative analysis of empirical studies in the field of Information Systems.

*Multimedia Systems* (IS 658): elective master's-level course in the design, implementation and evaluation of human-computer interfaces.

*Advanced Information Systems* (IS 465): core undergraduate-level course in information systems modeling and analysis.

*Geographic Information Systems* (IS 441): elective undergraduate-level course in the design of spatial databases and the analysis of spatial data.

##### **OTHER COURSES TAUGHT**

*Information Systems Principles* (IS 677): core master's-level course in information systems design and evaluation.

*Multimedia Information Systems* (IS 270): core undergraduate-level course in human-computer interface design.

#### **SERVICE AND AFFILIATIONS**

##### **WORKSHOPS**

Co-organizer (with W. Bouwman), "Workshop on Defining an Agenda for Research on Information and Communication Technology in Crisis Management," 5–6 November 2007, Delft, The Netherlands (partial funding provided by a supplemental grant from US National Science Foundation).

Co-organizer (with M. Haselkorn and R. Larson), "Humanitarian Service Science and Engineering Workshop," 8 October 2007, Seattle, Washington (funding provided by a grant from US National Science Foundation).

##### **CONFERENCE TRACKS AND PANELS**

Track Chair (2009), "Homeland Security." *IEEE International Conference on Systems, Man and Cybernetics*, San Antonio, TX.

Track Chair (2006–2009, annually), "Research Methods in Crisis Decision Making and Decision Support Systems." *Information Systems for Crisis Response and Management Conference*.

Panel Chair (2005), Improvised Thought, Behavior and Structure in Emergency Response. *Natural Hazards Workshop*, Boulder, CO.

Track Co-Chair (2004), "Interdependent Critical Infrastructure Systems" (with W. A. Wallace). *IEEE International Conference on Systems, Man and Cybernetics*, The Hague, The Netherlands.

## **EDITORIAL AND RELATED ACTIVITIES**

Member of Editorial Board: *Journal of Contingencies and Crisis Management* (2008–present), *International Journal of Emergency Management* (2001–present).

Guest Editor: *International Journal of Emergency Management*, 5(1/2), “Research Methods in Emergency Management” (with B. Van de Walle); *Natural Hazards Review*.

Reviewer (Journals): *Computational Mathematical and Organization Theory*; *Decision Support Systems*; *European Journal of Industrial Engineering*; *IEEE Systems, Man and Cybernetics Part A*; *Information, Knowledge, and Systems Management*; *International Journal of Mass Emergencies and Disasters*; *Journal of Homeland Security and Emergency Management*; *Knowledge and Information Systems*; *Logistics Information Management: an International Journal*; *MIS Quarterly*; *Natural Hazards Review*; *Policy Sciences*.

Reviewer (Conferences): *Americas Conference on Information Systems*; *Cognitive Science Society Annual Meeting*; *Hawaii International Conference on Systems Science*; *International Conference on Information Systems*; *IEEE International Conference on Systems, Man and Cybernetics*; *Information Systems for Crisis Response and Management Conference*.

## **UNIVERSITY COMMITTEES**

- Dean Search Committee, College of Computing Sciences (Spring 2005)
- International Relations Committee (Fall 2003–Spring 2008)
- Teaching Learning and Technology Committee (Spring 2003–Spring 2004)
- Albert Dorman Honors College Colloquium Committee (Fall 2002–Fall 2003)

## **DEPARTMENT COMMITTEES**

- Ph.D. Committee (Fall 2005–present)
- Faculty Hiring Committee (Fall 2003–Spring 2005)
- Excellence in Teaching Committee (Fall 2003–Spring 2004)

## **PRESENTATIONS AND OTHER ACTIVITIES**

### ***Workshops and Seminars***

Participant, "National Earthquake Resilience-Research, Implementation, and Outreach," National Research Council, 17-18 August 2009, Irvine, CA.

Lecturer, “Risk Management in Civil Engineering: Advanced Course,” National Civil Engineering Laboratory, Lisbon, Portugal, 19 November 2008.

Participant, “Security: Advancing a Framework for Enquiries,” Joint NATO/US National Science Foundation/European Science Foundation workshop, Paris, France, 17–18 November 2008.

Participant, “Decision Modeling and Behavior in Uncertain and Complex Environments,” Air Force Office of Scientific Research workshop, University of Arizona, Tucson, 28 February – 1 March 2008.

Participant, “Research & Education for Humanitarian Action Systems,” National Science Foundation Planning Meeting, Washington, DC, 26 January 2007.

Participant, “National Science Foundation Workshop on Resilient & Sustainable Infrastructures,” 4–5 December 2006.

Participant, “Unified Data Collection,” American Lifelines Alliance workshop, Washington, DC, 11–12 October 2006.

Instructor, ISCRAM/TIEMS 2006 Summer School, Tilburg University, The Netherlands. 15 June 2006.

Participant, Workshop on the Use of Information Technology to Enhance Crisis Management of Natural and Manmade Disasters, National Research Council. Washington, DC, 22–23 June 2005.

Participant, *The First Annual Conference on Infrastructure Priorities: A National Infrastructure Research Agenda*, Academy for Educational Development, Washington, DC, 24–26 October 2001.

### ***Presentations***

“Emergent Interoperability: Collaborative Adhocracies and Mix and Match Technologies in Emergency Management.” *Computer-supported Cooperative Work Conference*, Banff, Alberta, Canada, 7 November 2006.

“Adaptive Capacity: Electric Power Restoration in New York City following the September 11, 2001 Attacks.” School of Business, State University of New York at Buffalo, NY, 6 October 2006.

“Adaptive Capacity: Electric Power Restoration in New York City following the September 11, 2001 Attacks.” School of Business, University of Western Ontario, London, Ontario, 4 October 2006.

“A Cognitive Model of Improvisation in Emergency Management.” Department of Software Engineering, Monmouth University, NJ, and Signal Processing/Circuit and System Chapter of the IEEE New Jersey Coast Section, Long Branch, NJ, 27 April 2006.

“Impact of the 2001 World Trade Center Attack on Critical Infrastructure Interdependencies.” Consolidated Edison Inc., New York, NY, 22 November 2002.

“Impact of the 2001 World Trade Center Attack on Critical Infrastructure Interdependencies.” Public Service Enterprise Group Security Council, Newark, NJ, 19 November 2002.

“Impact of the 2001 World Trade Center Attack on Critical Infrastructure Interdependencies.” Construction Management Department, University of Karlsruhe, Karlsruhe, Germany, 19 August 2002.

“A Methodology for Investigating Organizationally-situated Improvisation in Emergency Response.” Disaster Research Center, University of Delaware, Newark, DE, 1 February 2002.

### ***Other Related Activities***

Program Committee Member, *Information Systems for Crisis Response and Management Conference*, 2004, 2006, 2008, 2009.

Faculty Mentor, “Enabling the Next Generation of Hazard Researchers,” National Science Foundation grant-sponsored project (PI: Thomas Birkland), 2008–present.

Member of Advisory Board, “Special Interest Group: Decision Support Systems Workshop,” *International Conference on Information Systems*, Milwaukee, WI, 10–13 December 2006.

International Advisory Committee Member, *First International Conference on Knowledge, Information and Creativity Support Systems*. Ayutthaya, Thailand, 1–4 August 2006.

Mentor, Ronald E. McNair Post-baccalaureate Achievement Program, New Jersey Institute of Technology, 2001–present.

**MEMBERSHIPS**

Cognitive Science Society, Institute for Operations Research and Management Science (INFORMS), Institute of Electrical and Electronics Engineers (IEEE), and IEEE Technical Committee on Homeland Security.

**LANGUAGES**

English (native), Portuguese (fluent)