

MARY BERNARDINE DIAS

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PROFESSIONAL EXPERIENCE

- Research Scientist**, Carnegie Mellon University (August 2005 to present) Pittsburgh, PA
Overseas assignments at Carnegie Mellon University Qatar campus:
August – December 2005
January – May 2007
- Special Research Faculty**, Carnegie Mellon University (November 2003 to August 2005) Pittsburgh, PA

EDUCATION

- Carnegie Mellon University** (August 1998 to May 2004) Pittsburgh, PA
Doctor of Philosophy degree in Robotics
Advisor: Professor Anthony Stentz
Thesis: “*TraderBots: A New Paradigm for Robust and Efficient Multirobot Coordination in Dynamic Environments*”
Research centered on the design and implementation of a distributed market-based approach, for robust and efficient autonomous multirobot coordination.
- Carnegie Mellon University** (August 1998 to May 2000) Pittsburgh, PA
Master of Science degree in Robotics
Received after fulfillment of Master of Science degree requirements while enrolled in Ph.D. program (GPA 3.88/4.0)
- Hamilton College** (August 1994 to May 1998) Clinton, NY
Bachelor of Arts degree in Physics and Computer Science with a minor in Women’s Studies (May 1998)
Thesis: “*Visual Navigation of a Mobile Robot*” (GPA 4.0/4.0)
- Macquarie University** (June 1996 to December 1996) Sydney, Australia
Hamilton College semester abroad program (GPA 4.0/4.0)

RESEARCH PROJECTS

- “Computing-Technology Education for Developing Communities” funded by Berkman Faculty Development Grant and by Qatar Foundation: Principal Investigator – M. Bernardine Dias** (May 2006 to present)
This project aims to design and implement a Robotics curriculum for University-level education in developing communities. The first instantiation of this courseware is on-going at Ashesi University in Accra, Ghana.
- “A Low-Cost, Robust, Braille-Writing Tutor with Audio Feedback” funded by the V Unit: Faculty Advisor – M. Bernardine Dias** (May 2006 to present)
This V Unit project by Robotics Institute graduate students Tom Lauwers and Nidhi Kalra designed and implemented an audio-feedback based Braille writing tutor to overcome some of the challenges in Braille literacy in the developing world. Initially carried out in partnership with the Mathru Educational Trust, a small school for the blind in Bangalore, India, this project is continuing with the support of a variety of small grants.
- “HATCH: Helping Advance Technology, Communication, and Health in Haiti” funded by the V Unit: Faculty Advisor – M. Bernardine Dias** (January 2006 to May 2006)
This V Unit project by graduate students Joe Dupelle, Mindy Lauck, Alexis Lozada, Pete Noll, and Benjamin Todd designed and implemented a scheduling system, and recommended a communication system for Hôpital Albert Schweitzer in Haiti.

“Kané Project: Automated English Reading Tutor for Ghana” funded by private grant to TechBridgeWorld: Principal Investigator – M. Bernardine Dias (May 2005 to August 2005)

This evaluated the effectiveness of the LISTEN English reading tutor to improve English literacy among the Ghanaian children. The project is in partnership with Jack Mostow from Carnegie Mellon University and Leslie Casely-Hayford from Associates for Change, Ghana. UNESCO recently funded a second phase of this project.

“Dynamic Human-Robot Teams Engaged in Complex Adversarial Tasks using Language-Based Communications” funded by The Boeing Company: Principal Investigators – Manuela Veloso, Anthony Stentz, Alex Rudnicky, and M. Bernardine Dias (May 2004 to present)

This five-year project leads an investigation of fundamental issues in dynamically formed teams of humans and heterogeneous robots for tasks where the humans and robots participate as team members and interact via speech. I am leading the investigation of applying market-based techniques to enable role assignment in the teams, issues of robustness, and human-multi-robot interaction.

“Advanced Global Path Planning for Mars Rover Exploration” funded by NASA: Principal Investigators – Anthony Stentz and David Wettergreen (November 2003 to present)

This project investigates and implements global path planning algorithms that take into account multiple constraints relevant to space exploration by rovers. I am assisting with project management and am leading the technology transfer effort to the Jet Propulsion Laboratory.

“FIRE: Federation of Intelligent Robotic Explorers” funded by NASA: Principal Investigator – Reid Simmons (September 2001 to August 2003)

The goal of this project was an investigation of fundamental issues in heterogeneous multi-robot coordination for domains, such as space exploration, where complex tasks must be performed in environments that are largely inaccessible to humans. I lead the investigation of a market-based approach to multirobot coordination.

“Multi-level Control of the K9 Rover Using IDEA Agents”-- internship at NASA Ames Research Center – funded by NASA: Principal Investigator – Nicola Muscettola (Summer 2002)

This project completed the design and implementation of two IDEA agents that controlled the K9 rover and enabled it to perform simple tasks while monitoring for and avoiding hazardous conditions. I helped design and implement these agents and test the implementation on the K9 rover at the Mars-Yard in NASA Ames Research Center.

“Sun-Synchronous Robotic Exploration” funded by NASA: Principal Investigator – William Whittaker (October 2000 to September 2001)

This project completed the design and implementation of a prototype sun-synchronous circumnavigation robot to explore terrain while being cognizant of the broader environment. The robot was experimentally demonstrated in the Canadian Arctic July 2001. I implemented the local navigation for the robot and was a member of the field-team that demonstrated the robot’s capabilities on Devon Island.

“Cognitive Colonization” funded by DARPA: Principal Investigator – Anthony Stentz (October 1999 to October 2000)

This project investigated the design and implementation of a software architecture for autonomous task planning and execution for a robot colony engaged in distributed mapping of urban environments. I helped design the market-based architecture and integrate several components of supporting software, and implemented the initial version of the architecture in simulation and on a team of mobile robots.

“Trident: Robotic Tooling System for Field-Container handling” funded by HRI: Horticultural Research Institute, NASA and USDA-ARS: United States Department of Agriculture – Agricultural Research Service: Principal Investigator – Hagen Schempf (January 1999 to October 1999)

This project designed and implemented a prototype tool for automated container handling in the nursery/landscape industry. I lead the design for the sensing configuration on an intelligent grasping device for this automated container-handler.

TEACHING EXPERIENCE

Co-instructor and co-designer for the undergraduate course, “Technology and Global Development (TGD),” at Carnegie Mellon University (August 2006 – present)

Co-designer for the undergraduate course, “Introduction to Robotics and Artificial Intelligence,” at Ashesi University in Accra, Ghana, (June 2006 – August 2006)

Co-instructor and co-designer for the graduate course, “Technology for Developing Communities (TDC),” at Carnegie Mellon University (August 2004 – present)

Co-instructor and co-designer for the undergraduate course, “Autonomous Robots,” at Carnegie Mellon University Qatar (August 2005 – present)

Co-instructor for the graduate course, “Information Communication Technology for 4 Billion,” co-taught using video-conferencing technology at Carnegie Mellon University and the University of California, Berkeley (August 2003 – December 2003)

Co-teacher (with Carl Rubino) for First-Year seminar, “The Unity of Knowledge” at Hamilton College (August 1997 – December 1997)

Co-designer and co-moderator (with Carl Rubino) of Summer Alumni Seminar at Hamilton College (Summers of 1999, 2000, 2001, and 2002)

ADVISING

Ph.D. co-advisor with Anthony Stentz: G. Ayorkor Mills-Tettey and E. Gil Jones, Robotics Institute (Fall 2004 to present)

Ph.D. thesis committee: Rob Zlot (Spring 2004 – Fall 2006), Nidhi Kalra (Fall 2004 – Fall 2006), and Aaron Morris (Spring 2006 – present), Robotics Institute Ph.D. students

Ph.D. thesis committee: Carol Frieze, School of Computer Science Ph.D. student (Fall 2005 – Spring 2007)

Program co-advisor with Manuela Veloso: the V-unit program (Spring 2005 – present)

Undergraduate independent study in robotics co-advisor with Brett Browning: Carnegie Mellon University Qatar student Noura El-Moughny (Spring 2006)

Summer internship co-advisor with Brett Browning: Bernard Ghanem, Nour Hariri, Bilal Mikati, Samer Ghanem, Robin Lahoud, Karen Downum, Gaurav Taank, and Rawia Samad (Summer 2004 – 2006)

Undergraduate research advisor: Chris Casinghino (Summer 2005 – Spring 2006), Matthew Faria (Fall 2006 – present), Noura El-Moughny (Spring 2007 – present), and Daniel Dewey (Summer 2007)

AWARDS

Hamilton College Alumni Achievement Medal for outstanding accomplishments in Physics and Computer Science (October 2005)

School of Computer Science Graduate Student Service Award (March 2002)

John Nesbitt Memorial Fellowship as Salutatorian of Hamilton College Class of 1998 (May 1998)

Elihu Root Fellowship for Graduate Studies in the Sciences (May 1998)

Senior Prize in Physics (May 1998)

Kirkland Prize Scholarship (May 1998)

Leo Mackta Prize in Applied Physics (August 1997)

Woman of Color Prize Scholarship (May 1997)

William J. Schickler III Prize Scholarship (May 1997)

Leonard E. and Sue J. Kingsley Prize Scholarship (May 1996 and May 1997)

Willard Bostwick Marsh Prize Scholarship (August 1996)

Grant Keehn prize scholarship (May 1996)

G. Harvey Cameron Memorial Prize in Experimental Physics (May 1996)

Charles A. Dana Prize scholarship (August 1995)

HONORS

Invited Program Committee member and sponsored panelist, Anita Borg Institute for Women and Technology workshop, "TechLeaders For Social Innovators" held in conjunction with the Grace Hopper Celebration of Women in Computing, Orlando, Florida (October 2007)

Sponsored panelist, pre-conference workshop, "Women in Technology" held in conjunction with the 7th annual Emerging Technologies Conference, MIT campus, Cambridge, Massachusetts (September 2007)

Invited Computer Science curriculum design committee member, Asian University for Women, to be launched in Chittagong, Bangladesh, supported by the Asian University for Women Support Foundation, Cambridge, Massachusetts (July 2007)

Invited participant, Humanitarian Futures program to enhance the dialogue between scientists and humanitarian policy makers to enhance the capacity of organizations engaged in humanitarian response be more effective in preparing for more complex future crises, Coordinated from King's College, London, United Kingdom (July 2007)

Sponsored participant, "Shell Technology Futures 2007" workshop in Surrey, United Kingdom (January 2007)

Invited Program Committee member and sponsored panelist, workshop, "Artificial Intelligence in Information Communication Technology for Development" at the Twentieth International Joint Conference on Artificial Intelligence in Hyderabad, India (January 2007)

Sponsored participant, 2006 Women and ICT Task Force Meeting, "Re-Engineering Development: Engendering ICTs" at UNESCO headquarters in Paris, France (November 2006)

Invited Lecturer, Westinghouse Science Honors Institute, "TechBridgeWorld: Building Technology Bridges to Developing Communities" February 2006

Invited Speaker, Science Symposium, dedication ceremony of new Science Center, "Breaking New Ground in Computing Technology: A Liberal Arts Perspective" Hamilton College, October 2005

Invited Speaker, Convocation Lecture Series, H. John Heinz III School of Public Policy and Management, "Technology and International Development" Carnegie Mellon University, March 2005

Invited Speaker, Robotics Institute 25th anniversary celebrations, presentations to academic and business participants on the TechBridgeWorld initiative, Carnegie Mellon University, October 2004

Invited Speaker, Panel for the Kirkland Project series on Science/Technology and Democracy (presentation on the TechBridgeWorld initiative), Hamilton College, Clinton, NY, September 2003

Phi Beta Kappa Honor Society membership (May 1998)

Sigma Xi Honor Society membership (May 1998)

Departmental Honors in Physics and Computer Science (May 1998)

Senior Fellowship with research and travel grant (August 1997)

FUNDING

Research contract under the General Terms Agreement between "The Boeing Company" and Carnegie Mellon University for research on dynamic human-robot team coordination (5 years: 2004-2008)

Egerman Family Foundation gifts, in support of TechBridgeWorld, (2004, 2005, 2006, 2 years: 2007-2008)

Intel's First Year Research Experience (IFYRE) undergraduate summer fellowship grant, "Braille Tutor Software Development," co-authored with Carnegie Mellon University Pittsburgh students Tom Stepleton and Daniel Dewey (April 2007)

Qatar National Research Fund's (QNRF) Undergraduate Research Experience Program (UREP) grant, "Exploring and Enhancing Assistive Technology for Learning to Write Braille," co-authored with Carnegie Mellon University Qatar student Noura El-Moughny (March 2007)

UNESCO grant, in collaboration with Ghana-India Kofi Annan Center for Excellence in ICT (AITI-KACE) and Associates for Change, both in Accra, Ghana, "Project Kane: Impact of an Automated Tutor in Ghana" (November 2006)

Berkman Faculty Development grant, "Computing-Technology Education for Developing Communities" (May 2006)

Carnegie Mellon University Global Education Initiative grant, "Technology for Developing Communities (TFDC): Globalizing the Benefits of Technology" (December 2005)

Carnegie Mellon University Qatar seed funding (Fall 2005)

Carnegie Mellon University Qatar staff salary support (Fall 2005 to present)

Hamilton College well-wishers gifts, in support of TechBridgeWorld, (2005)

Grant from Provost's office, in support of TechBridgeWorld, (2004)

School of Computer Science discretionary funds, courtesy of Professor Manuela Veloso, in support of TechBridgeWorld, (2003)

Robotics Institute partial salary support (November 2003 to August 2005)

Robotics Institute seed funding (2003)

PROFESSIONAL ACTIVITIES

Organizing committee member: Inaugural undergraduate research conference for women (OurCS) at Carnegie Mellon University campus, Sponsored by Microsoft Research (October 2007)

Co-organizer with Brett Browning and Majd Sakr: Inaugural Meeting of the Minds at Carnegie Mellon University Qatar campus (April 2007)

Admission scholarship selection committee with Patrick McGinnis: Carnegie Mellon University Qatar (April 2007)

Admissions interviewer: Carnegie Mellon University Qatar (Spring 2007)

Member: Carnegie Mellon University Qatar Distinguished Lecture Series committee (Fall 2005 to present)

Coordinator, Field Robotics Center seminar series (January 2004 to present)

Member, School of Computer Science Alumni Advisory Board (October 2004 to present)

Member, School of Computer Science Alumni Award for Undergraduate Research selection committee (May 2003 to present)

Program Committee Member: International Conference on Information and Communication Technologies and Development (ICTD2006, 2007), International Joint Conference on Autonomous Agents & Multi-Agent Systems (AAMAS 2005, 2006, 2007), and National Conference on Artificial Intelligence (AAAI 2005, AAAI 2006)

Coauthor and panelist: "Ripple Effects Increasing the Diversity of Creators and Consumers of Computing Technology" at the Grace Hopper Celebration of Women in Computing Conference in San Diego (October 2006)

Faculty Advisor to Graduate Women@SCS: Mentor, advise and help to coordinate activities, events, and development for graduate students in Women@SCS (January 2006 to present)

Member: Carnegie Mellon University Globalization Research Committee (January 2005 to December 2005)

Organizer:

Half-Day Tutorial, "Exploring Non-Traditional Benefits of AI to the Global Society," M. Bernardine Dias, Rahul Tongia, and Kentaro Toyama, IJCAI 2007

Half-Day Tutorials, "Auction-Based Robot Coordination," Sven Koenig, Michail G. Lagoudakis, and M. Bernardine Dias, ICRA 2006, AAAI 2006, and AAMAS 2006

Full-Day workshop, "Auction-Based Robot Coordination," Sven Koenig, Michail G. Lagoudakis, and M. Bernardine Dias, AAAI 2006

Full-Day Workshop, "Towards Fieldable Multirobot Systems", M. Bernardine Dias, Brett Browning, Manuela Veloso, and Anthony Stentz, ICRA 2005

Reviewer: several journals, conferences, and workshops including IJRR, JFR, ICRA, AAAI, AAMAS, IROS, and RoboCup International Symposium (2004 to present)

Coauthor and panelist: "Women@IT: Graduate Education for Tomorrow's Leaders" at the Grace Hopper Celebration of Women in Computing Conference in Chicago (October 2004)

Coauthor, panelist and presenter: "From Bits to Bots: Women Everywhere, Leading the Way" at the Grace Hopper Celebration of Women in Computing Conference in Vancouver, Canada (October 2002)

Member: IEEE and AAAI

OTHER ACTIVITIES

Designer and Presenter, "How to Survive the Robotics Institute PhD Program" at the Robotics Institute Immigration Course (September 2004)

CPSR – Computer Professionals for Social Responsibility: Helped to revive the Carnegie Mellon University chapter of CPSR (2002)

Founding Member and Graduate Student Coordinator of Women@SCS: Helped to found this now nationally recognized Carnegie Mellon University organization to address and alleviate concerns of women students in the School of Computer Science (founding in 1999, coordinator 2001-2002 Academic Year)

Co-RoboCzar of RoboOrg with Joelle Pineau: Helped to plan, organize and coordinate student activities and to resolve student issues for Robotics students (2001)

Designer and first Organizer of the “Is There A Robot In Your Future?” Workshop for the Expanding Your Horizons Program: Helped to design and conduct an introductory robotics workshop for middle school girls participating in the Expanding Your Horizons program. This workshop continues to be conducted by Carnegie Mellon University students every year to date (March 2000)

Designer and Organizer of first SCS Day: Helped to design and orchestrate the first SCS Day for the School of Computer Science at Carnegie Mellon University. This event was designed to build community within the School of Computer Science. SCS Day was a huge success and is currently slated to become an annual event (February 2003).

Other Interests: Extracurricular activities include choreography, instructing, and performing of traditional Sri Lankan (Kandyan) dancing, performance in voice (mezzo-soprano), Salsa dancing, Argentine Tango, cooking, camping, and hiking.

PUBLICATIONS

Book Chapters:

Lenore Blum, Carol Frieze, Orit Hazzan, and M. Bernardine Dias, “A Cultural Perspective on Gender Diversity in Computing,” in *Reconfiguring the Firewall: Recruiting Women to Information Technology across Cultures and Continents* eds. by Carol J. Burger, Elizabeth G. Creamer, and Peggy S. Meszaros, AK Peters, Ltd., 2007.

Refereed Journal Publications:

M. Bernardine Dias and Anibal Ollero, guest editors, “Teamwork in Field Robotics,” *Journal of Field Robotics Special Issue*, to be published (expected 2008).

M. Bernardine Dias and Anthony Stentz, “*TraderBots*: Robust and Efficient Team Coordination for Robots in Dynamic Environments”, *International Journal of Robotics Research* (submitted 2007).

M. Bernardine Dias, Robert Zlot, Nidhi Kalra, and Anthony Stentz, “Market-Based Multirobot Coordination: A Survey and Analysis”, *IEEE special edition on multirobot coordination*, 2006.

M. Bernardine Dias, G. Ayorkor Mills-Tettey, and Joseph Mertz, “The TechBridgeWorld Initiative: Broadening Perspectives in Computing Technology Education and Research”, *Association of Computing Machinery (ACM) special proceedings of the International Symposium on Women and ICT: Creating Global Transformation*, 2006.

Ph.D. Dissertation:

M. Bernardine Dias, “*TraderBots*: A New Paradigm for Robust and Efficient Multirobot Coordination in Dynamic Environments,” Ph.D. Thesis, CMU-RI-TR-04-30, January 2004.

Refereed Conferences:

E. Gil Jones, M. Bernardine Dias, and Anthony Stentz, “Learning-enhanced Market-based Task Allocation for Oversubscribed Domains”, *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, October 2007, Accepted.

M. Bernardine Dias, Brett Browning, G. Ayorkor Mills-Tettey, Nathan Amanquah, and Noura El-Moughny, “Undergraduate Robotics Education in Technologically Underserved Communities”, *IEEE International Conference on Robotics and Automation (ICRA) 2007*.

E. Gil Jones, Brett Browning, M. Bernardine Dias, Brenna Argall, Manuela M. Veloso, and Anthony Stentz, “Dynamically Formed Heterogeneous Robot Teams Performing Tightly-Coordinated Tasks”, *IEEE International Conference on Robotics and Automation (ICRA) 2006*.

G. Ayorkor Mills-Tettey, Anthony Stentz, and M. Bernardine Dias, “DD* Lite: Efficient Incremental Search with State Dominance,” *Twenty-First National Conference on Artificial Intelligence (AAAI-06)*, July, 2006.

M. Bernardine Dias, Bernard Ghanem, and Anthony Stentz, "Improving Cost Estimation in Market-Based Coordination of a Distributed Sensing Task", IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), August 2005.

M. Bernardine Dias, G. Ayorkor Mills-Tettey, and Thrishantha Nanayakkara, "Robotics, Education, and Sustainable Development", IEEE International Conference on Robotics and Automation (ICRA), April 2005.

M. Bernardine Dias, Robert Zlot, Marc Zinck, and Anthony Stentz, "Robust Multirobot Coordination in Dynamic Environments", the IEEE International Conference on Robotics and Automation (ICRA), April 2004.

Anthony Stentz, M. Bernardine Dias, Robert Zlot, and Nidhi Kalra, "Market-Based Approaches for Coordination of Multi-Robot Teams at Different Granularities of Interaction," the ANS 10th International Conference on Robotics and Remote Systems for Hazardous Environments, March, 2004.

M. Bernardine Dias and Anthony Stentz, "A Comparative Study between Centralized, Market-Based, and Behavioral Multirobot Coordination Approaches", IEEE/RSJ International Conference on Intelligent Robots and Systems, October 2003.

M. Bernardine Dias, Solange Lemai, and Nicola Muscettola, "A Real-Time Rover Executive Based On Model-Based Reactive Planning", the 11th International Conference on Advanced Robotics, May 2003.

M. Bernardine Dias and Anthony Stentz, "Opportunistic Optimization for Market-Based Multirobot Control", IEEE/RSJ International Conference on Intelligent Robots and Systems, September 2002.

Christopher Urmson, M. Bernardine Dias and Reid Simmons, "Stereo Vision Based Navigation for Sun-Synchronous Exploration", IEEE/RSJ International Conference on Intelligent Robots and Systems, September 2002.

Robert M. Zlot, Anthony Stentz, M. Bernardine Dias, and Scott Thayer, "Multi-Robot Exploration Controlled By A Market Economy", IEEE International Conference on Robotics and Automation (ICRA), May 2002.

David Wettergreen, M. Bernardine Dias, Benjamin Shamah, Jim Teza, Paul Tompkins, Christopher Urmson, Michael D. Wagner, and William L. Whittaker, "First Experiment in Sun-Synchronous Exploration", IEEE International Conference on Robotics and Automation (ICRA), May 2002.

Scott Thayer, Bruce Digney, M. Bernardine Dias, Anthony Stentz, Bart Nabbe, and Martial Hebert, "Distributed Robotic Mapping of Extreme Environments", SPIE, November 2000.

M. Bernardine Dias and Anthony Stentz, "A Free Market Architecture for Distributed Control of a Multirobot System", 6th International Conference on Intelligent Autonomous Systems (IAS-6), July 2000.

Tutorials, Workshops, Symposia, Posters and Technical Reports:

G. Ayorkor Mills-Tettey, Anthony Stentz, and M. Bernardine Dias, "The Dynamic Hungarian Algorithm for the Assignment Problem with Changing Costs", Submitted to the 19th ACM-SIAM Symposium on Discrete Algorithms (SODA 2008).

G. Ayorkor Mills-Tettey, Anthony Stentz and M. Bernardine Dias, DD* Lite: Efficient Incremental Search with State Dominance, Technical Report CMU-RI-TR-07-12, Robotics Institute, Carnegie Mellon University, May, 2007.

G. Ayorkor Mills-Tettey, M. Bernardine Dias and Brett Browning, "Robotics Education in Emerging Technology Regions," AAAI Spring Symposium "Robots and Robot Venues: Resources for AI Education," 2007.

Nidhi Kalra, Tom Lauwers, and M. Bernardine Dias, "A Braille Writing Tutor to Combat Illiteracy in Developing Communities," Artificial Intelligence in Information Communication Technology for Development workshop, IJCAI 2007.

Juan Pablo Gonzalez, Simon Cook, Thomas Oberthur, Andrew Jarvis, J. Andrew Bagnell and M. Bernardine Dias, "Creating Low-Cost Soil Maps for Tropical Agriculture using Gaussian Processes," Artificial Intelligence in Information Communication Technology for Development workshop, IJCAI 2007.

G. Ayorkor Mills-Tettey, M. Bernardine Dias and Brett Browning, "Teaching technical creativity through Robotics: A case study in Ghana," Artificial Intelligence in Information Communication Technology for Development workshop, IJCAI 2007.

Carol Frieze, Orit Hazzan, Lenore Blum, and M. Bernardine Dias, "Culture and Environment as Determinants of Women's Participation in Computing: Revealing the 'Women-CS Fit'," Proceedings of the Thirty-Seventh SIGCSE Technical Symposium on Computer Science Education, 2006.

E. Gil Jones, M. Bernardine Dias, and Anthony Stentz, "Learning-enhanced Market-based Task Allocation for Disaster Response," technical report, Robotics Institute, October 2006.

M. Bernardine Dias, Thomas K. Harris, Brett Browning, E. Gil Jones, Brenna Argall, Manuela Veloso, Anthony Stentz, and Alexander A. Rudnicky, "Dynamically Formed Human-Robot Teams Performing Coordinated Tasks," AAI Spring Symposium "To Boldly Go Where No Human-Robot Team Has Gone Before," 2006.

M. Bernardine Dias, Brett Browning, Manuela Veloso, and Anthony Stentz, "Dynamic Heterogeneous Robot Teams Engaged in Adversarial Tasks," technical report, Robotics Institute, 2005.

Dani Goldberg, Vincent Cicirello, M. Bernardine Dias, Reid Simmons, Stephen Smith and Anthony Stentz, "Market-Based Multi-Robot Planning in a Distributed Layered Architecture", Multi-Robot Systems: From Swarms to Intelligent Automata: Proceedings from the 2003 International Workshop on Multi-Robot Systems, March 2003.

M. Bernardine Dias, Dani Goldberg, and Anthony Stentz, "Market-Based Multirobot Coordination for Complex Space Applications", the 7th International Symposium on Artificial Intelligence, Robotics and Automation in Space, May 2003.

Dani Goldberg, Vincent Cicirello, M. Bernardine Dias, Reid Simmons, Stephen Smith, Trey Smith and Anthony Stentz, "A Distributed Layered Architecture for Mobile Robot Coordination: Application to Space Exploration", Proceedings of the 3rd International NASA Workshop on Planning and Scheduling for Space, October 2002.

Reid Simmons, Trey Smith, M. Bernardine Dias, Dani Goldberg, David Hershberger, Anthony Stentz, and Robert M. Zlot, "A Layered Architecture for Coordination of Mobile Robots", Multi-Robot Systems: From Swarms to Intelligent Automata, Proceedings from NRL Workshop on Multi-Robot Systems, May 2002.

M. Bernardine Dias and Anthony Stentz, "A Market Approach to Multirobot Coordination," technical report, Robotics Institute, August 2001.

M. Bernardine Dias, "Trident Sensing System: A configuration of sensors to aid alignment of an intelligent grasping device used for field-container handling", technical report, Robotics Institute, November 2000.

M. Bernardine Dias, "Investigating the Viability of MEMS Vapor Sensors for Detecting Land Mines", technical report, Robotics Institute, October 2000.

Anthony Stentz and M. Bernardine Dias, "A Free market Architecture for Coordinating Multiple Robots", technical report, Robotics Institute, December 1999.