

Alfredo Weitzenfeld

Professor

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Advisor: USF Robobulls

<http://www.usfrobobulls.org>

Executive Advisory Board: Journal of Intelligent & Robotic Systems

<http://www.springer.com/engineering/robotics/journal/10846>

Executive Advisory Board: Latin American Robotics Council

<http://ewh.ieee.org/reg/9/robotica/>

Internal Advisory Council: RoboCup Federation

http://wiki.robocup.org/wiki/Organization_of_RoboCup#Internal_Advisory_Board

Internal Advisory Board: Mexican Robotics Federation

www.femexrobotica.org

Research Interests

Biologically-inspired Robotics, Cognitive Robotics, Humanoid Robots, Multi-Robot Systems, Human-Robot Interaction, and Neural Networks.

Education

PhD 1992, Computer Science, University of Southern California, Los Angeles, CA.

Thesis: *A Unified Computational Model for Schemas and Neural Networks in Concurrent Object-Oriented Programming*, Advisor: Michael Arbib.

MS 1985, Computer Engineering, University of Southern California, Los Angeles, CA.

BS 1982, Electrical Engineering, TECHNION, Israel Institute of Technology, Haifa, Israel.

Faculty

Professor 2014-present, Computer Science and Engineering Department, College of Engineering, University of South Florida, Tampa, FL.

Professor 2009-2014, Division of Information Technology, College of Engineering, University of South Florida, Lakeland, FL.

Visiting Professor	Summer 2010, Engineering, Polytech Marseille, France.
Visiting Professor	2006-2008, Computer Science and Engineering Department, College of Engineering, University of South Florida, Tampa, FL.
Visiting Professor	Summer 2005, Computer Engineering Department, University of California, Santa Cruz, CA.
Visiting Professor	Summer 2004, Information and Computer Science Department, University of California, Irvine, CA.
Visiting Professor	Summer 2003, Information and Computer Science Department, University of California, Irvine, CA.
Professor	1994 – 2009, Computer Engineering Dept, ITAM, Mexico City.
Research Assistant Professor	1993, Computer Science Department, USC, Los Angeles, CA.

Laboratories

Director	2012 – present, BioRobotics Laboratory, Computer Science and Engineering Dept, College of Engineering, USF, Tampa, FL.
Director	2008 – 2013, Robotics Laboratory, Division of Information Technology, USF, Lakeland, FL.
Director	2002 – 2009, Robotics Laboratory, Computer Engineering Dept, School of Engineering, ITAM, Mexico, DF.
Director	1995 – 2009, CANNES Biorobotics Laboratory, Computer Engineering Dept, School of Engineering, ITAM, Mexico, DF.
Manager	1987 - 1993, Brain Simulation Laboratory, Computer Science Dept, USC, Los Angeles, CA.

Projects

RoboCup SSL RB	2006 – present, RoboBulls, RoboCup Small-Size Team, College of Engineering, USF, Tampa, FL, USA. (http://www.usfrobobulls.org)
RoboCup @Home	2006 – 2011, Radical Dudes, RoboCup @Home Team, Information Technology at USF, Lakeland and Tampa, FL, USA and INSERM, Lyon, France.
RoboCup SSL EK	2002 – 2009, Eagle Knights, RoboCup Small-Size and Four-Legged Soccer Teams, Robotics Laboratory, Computer Engineering, ITAM, Mexico, DF.
NSL	1989 – present, NSL – Neural Simulation Language. (http://www.neuralsimulationlanguage.org).

Scholarships and Fellowships

Fellowship	2010, Visiting Faculty, Polytech Marseille, France
Fellowship	2003, UC MEXUS-CONACYT Faculty Visit Grant: “Distributed Embedded Robotics, Supporting Middleware Architectures and Applications” (Visiting Nalini Venkatasubramanian at UCI)
Fellowship	1995 – 2008, Member of the Mexican Researchers System (SNI), Mexico, City.
Scholarship	Summer 1987, San Diego Supercomputer Center, San Diego, CA.
Scholarship	1985 – 1986, Teaching Assistant, Mathematics Dept, USC, Los Angeles, CA.

Research Grants

NSF	2015, PI, REU, “A replay-driven model of spatial sequence learning in the Hippocampus-PFC network using reservoir computing”, CRCNS #1503569, NSF (USF: Alfredo Weitzenfeld)
NSF-ANR	2014-2017, PI, “A replay-driven model of spatial sequence learning in the Hippocampus-PFC network using reservoir computing”, CRCNS #1429937, NSF-ANR (USF: Alfredo Weitzenfeld; U. Arizona: Jean-Marc Fellous; INSERM, Lyon, France: Peter Dominey)
NSF	2013-2014, PI, REU, “Investigations of the Role of Dorsal versus Ventral Place and Grid Cells during Multi-Scale Spatial Navigation in Rats and Robots”, Robust Intelligence, IIS #1339019, NSF (USF: Alfredo Weitzenfeld)
NSF	2012-2013, PI, REU, “Investigations of the Role of Dorsal versus Ventral Place and Grid Cells during Multi-Scale Spatial Navigation in Rats and Robots”, Robust Intelligence, IIS #1236975, NSF (USF: Alfredo Weitzenfeld)
NSF	2011-2015, PI, “Investigations of the Role of Dorsal versus Ventral Place and Grid Cells during Multi-Scale Spatial Navigation in Rats and Robots”, Robust Intelligence, IIS #1117303, NSF (USF: Alfredo Weitzenfeld; U. Arizona: Jean-Marc Fellous)
NSF	2013-2015, PI, “Scaling the STARS Alliance: A National Community for Broadening”, NSF, UNCC (PI: Alfredo Weitzenfeld)
USF	2010-2013, co-PI, “Sensor-Based Bladder Monitoring for Injury Detection during Pelvic Surgery”, USF Office of Technology Licensing Commercialization Fund (USF: Stuart Hart MD, Jay DiLeo MD, Susana Lai-Yuen PhD, Alfredo Weitzenfeld PhD)
USF	2010 – 2013, co-PI, “Sensor-Based Bladder Monitoring for Injury Detection during Pelvic Surgery”, USF Interdisciplinary Grant (USF: Stuart Hart MD, Jay DiLeo MD, Susana Lai-Yuen PhD, Alfredo Weitzenfeld PhD)
LAFMI-CONACYT	2005-2007, co-PI, French-Mexican Informatics Laboratory Research Collaboration Grant: “A Natural Language Interface for Robot Command and

	Control” (ISC-CNRS: Peter Dominey, ITAM: Alfredo Weitzenfeld)
UC MEXUS- CONACYT	2004-2007, co-PI, Research Collaboration Grant: “Networked SEREBROs: Ad-Hoc Networking for Collaborative Search and Rescue Biomimetic Robots” (UCSC: Katia Obraczka, ITAM: Alfredo Weitzenfeld)
NSF- CONACYT	2004-2007, co-PI, Research Collaboration Grant: “Visually-guided NeuroEthological Autonomous Robots: An Adaptive Middleware Approach to Distributed Embedded Mobile Systems” (UCI: Nalini Venkatasubramanian, ITAM: Alfredo Weitzenfeld)
UC MEXUS- CONACYT	2002-2003, co-PI, Research Collaboration Grant: “MIRO: Adaptive Middleware for Mobile Internet Robots” (UCI: Nalini Venkatasubramanian, ITAM: Alfredo Weitzenfeld)
CONACYT- REDII	1998-2001, PI, Research Grant: “Brain Models on the Web” (ITAM: Alfredo Weitzenfeld)
NSF- CONACYT	1996-1999, co-PI, Research Collaboration Grant: “Multi-Level Simulation Methodology: A Computational and Experimental Approach to Neural Systems” (USC: Michael Arbib; CINVESTAV: Pablo Rudomin; ITAM: Alfredo Weitzenfeld, Francisco Cervantes)
NSF- CONACYT	1995-1998, co-PI, Research Collaboration Grant: “Ecological Robots: A Schema-based Approach” (GeorgiaTech: Ronald Arkin; ITAM: Alfredo Weitzenfeld, Francisco Cervantes)

Academic Grants

LeapDoctor 2015-2016, PI, USF BEST Project

Graduate Teaching

USF	Intelligent Agents, Robotic Applications
USC	Advanced Computer Graphics
ITAM	Software Engineering, Object-Oriented Programming, Autonomous Agents

Undergraduate Teaching

USF	Human-Computer Interface, Introduction to Mobile Robots, Advanced Mobile Robots, Software Engineering
ITAM	Robotics, Object-Oriented Software Development, Computer Graphics, Operating Systems

Patents

1. Onal, S., Lai-Yuen, S., Bao, P., Weitzenfeld, A., and Hart, S., Image-based Automated Measurement Model to Predict Pelvic Organ Prolapse, US Patent (submitted 2015).

2. Hart, S., DiLeo, G., Weitzenfeld, A., Lai-Yuen, S., Hipol, P., and Sweeney, M., Electronic Catheter Stethoscope, US Patent, #20130018267 (submitted 2011).

Books

1. Weitzenfeld, A., 2004, Object Oriented Software Engineering with UML, Java and Internet, Thomson Learning / Cengage Learning (in Spanish) (ISBN 970-686-190-4).
2. Weitzenfeld, A., Arbib, M.A., Alexander, A., 2002, The Neural Simulation Language: A System for Brain Modeling, MIT Press (ISBN 0-262-73149-5).

Conference Editions

1. Weitzenfeld, A., Ruiz del Solar (Editors) 2014, Proc 16th International Conference on Advanced Robotics ICAR 2013, IEEE Xplore (ISBN-978-1-4799-2722-7).
2. Luca, I. A., Matsubara, H., Weitzenfeld, A., Zhou, C., (Editors) 2009, Proc RoboCup 2008: Robot WorldCup XII, Lecture Notes in Artificial Intelligence (LNAI), Springer.
3. Weitzenfeld, A., Ruiz del Solar, J., Zegers, P., García, R., (Editors) 2009, Proc 6th IEEE-RAS Latin American Robotics Symposium LARS 2009, IEEE Xplore.
4. Weitzenfeld, A., Barrera, A., (Editors) 2004, Proc 1st IEEE-RAS Latin American Robotics Symposium LARS 2004 (ISBN 970-943-770-4).

Special Issue Editions

1. Ruiz del Solar, J., Weitzenfeld, A., (Guest Editors) 2015, Special Issue on "Advanced Robotics", Journal of Intelligent and Robotic Systems, Vol. 77 No. 1, January.
2. Ruiz del Solar, J., Weitzenfeld, A., (Guest Editors) 2012, Special Issue on "Advances in Robotics in Latin America", Journal of Intelligent and Robotic Systems (DOI: 10.1007/s10846-011-9629-6).

Refereed Publications (Robotics, Neural Networks, AI)

1. Llofriu, M., Tejera, G., Contreras, M., Pelc, T., Fellous, J.M., and Weitzenfeld, A., 2015, Multi-Scale Space Representation and Learning in Goal-Oriented Robot Navigation, Journal of Neural Network, Elsevier, doi:10.1016/j.neunet.2015.09.006.
2. Contreras, M., Pelc, T., Llofriu, M., Weitzenfeld, A., Fellous, J.M., 2015, Ventral hippocampus inactivation impairs goal-directed spatial navigation in obstacle-laden environments, Neuroscience 2015, Chicago, IL, Oct 17-21.
3. Cazin, N., Fellous, J.M., Weitzenfeld, A., Dominey, P.F., 2015, Prefrontal Cortex Reservoir Network Learns to Reconstruct Navigation Sequences by Concatenating Place-cell Snippets Replayed in Hippocampus, Neuroscience 2015, Chicago, IL, Oct 17-21.
4. Dominey, P.F., Cazin, N., Fellous, J.M., Weitzenfeld, A., 2015, Prefrontal Cortex Reservoir Network Learns to Reconstruct Navigation Sequences by Concatenating Place-cell Snippets Replayed in Hippocampus, CRCNS 2015, Seattle, WA, Sept 28-30.
5. Elibol, E., Calderon, J., Llofriu, M., Moreno, W., and Weitzenfeld, A., 2015, Power Usage Reduction of Humanoid Standing Process using Q-Learning, RoboCup Symposium 2015, July 23, Hefei, China.

6. Tejera, G., Llofriu, M., Barrera, A., and Weitzenfeld, A., 2015, A Spatial Cognition Model Integrating Grid Cells and Place Cells, International Joint Conference on Neural Networks, IJCNN 2015, July 12-17, Killarney, Ireland.
7. Calderon, J., Llofriu, M., Moreno, W., and Weitzenfeld, A., 2015, Soft landing in jumping robot using compliant motor capability, ICRA 2015 Workshop, "Get in touch!" Tactile & force sensing for autonomous, compliant, intelligent robots, Seattle, Washington, May 30.
8. Savage, J., Weitzenfeld, A., and Morales, M., 2015, Promoting Robotics Development in Mexico, ICRA 2015 Developing Countries Forum, Seattle, Washington, May 29.
9. Llofriu, M., Tejera, G., Calderon, J., Fellous, J.M., and Weitzenfeld, A., 2015, Bio-Inspired Multi-Scale Representation for Navigation Learning, ICRA 2015 Workshop, Sensorimotor Learning, Seattle, Washington, May 26.
10. Barrera, A., Tejera, G., Llofriu, M., and Weitzenfeld, A., 2015, Learning Spatial Localization: From Rat Studies to Computational Models of the Hippocampus, Journal of Spatial Cognition and Computation, Taylor-Francis, Vol. 15 No. 1, pp. 27-59. DOI: 10.1080/13875868.2014.961602
11. Contreras, M., Llofriu, M., Weitzenfeld, A., Fellous, J.M., 2014, Effect of dorsal or ventral hippocampus inactivation on goal-directed spatial navigation in rats and computational models, Neuroscience 2014, Washington, DC, Nov 15-19.
12. Weitzenfeld, A., Bismas, J., Akar, M., Sukvichai, K., 2014, RoboCup Small Size League: Past, Present, and Future, RoboCup Symposium 2014, Joao Pessoa, Brasil, July 25.
13. Tejera, G., Barrera, A., Llofriu, M., and Weitzenfeld, A., 2013, Solving uncertainty during robot navigation by integrating grid cell and place cell firing based on rat spatial cognition studies, 16th International Conference on Advanced Robotics, ICAR 2013, Nov 25-29, Montevideo, Uruguay.
14. Llofriu, M., Andrade, F., Benavides, F., Weitzenfeld, A., and Tejera, G., 2013, An embedded particle filter SLAM implementation using an affordable platform, 16th International Conference on Advanced Robotics, ICAR 2013, Nov 25-29, Montevideo, Uruguay.
15. Lopez, J., Perez, K., Rojas, E., Rodriguez, S., Calderon, J., and Weitzenfeld, A., 2013, Comparison between a fuzzy controller and classic controller applied to stabilize a Humanoid robotic platform, 16th International Conference on Advanced Robotics, ICAR 2013, Nov 25-29, Montevideo, Uruguay.
16. Llofriu, M., Tejera, G., Barrera, A., and Weitzenfeld, A., 2013, A humanoid robotic platform to evaluate spatial cognition models, 8th Workshop on Humanoid Soccer Robots, Humanoids 2013, Atlanta, GA, Oct 15.
17. Calderon, J., Elibol, E., Moreno, W., and Weitzenfeld, A., 2013, Current usage reduction through stiffness control in humanoid robot, 8th Workshop on Humanoid Soccer Robots, Humanoids 2013, Atlanta, GA, Oct 15.
18. Lyttle, D., Weitzenfeld, A., Fellous, J.M., Lin, K., 2013, The influence of multiple firing events on the formation and stability of activity patterns in continuous attractor networks, Computational Neuroscience Meeting CNS-2013, Paris, France, July 13-18.
19. Elibol, E., Calderon, J., and Weitzenfeld, A., 2013, Optimizing energy usage through variable joint stiffness control during humanoid robot walking, RoboCup Symposium, Eindhoven, Netherlands, July 1.

20. Weitzenfeld, A., Cruz, W., Enriquez, A., Cooper, D., and Thomas, N., 2013, Playing Soccer with Lego Robots under RoboCup Small Size League Rules, FLAIRS-26, Florida AI Research Society, St. Pete Beach, FL, USA, May 22-24.
21. Tejera, G., Barrera, A., Fellous, J.M., Llofriú, M., and Weitzenfeld, A., 2013, Spatial Cognition: Robot Localization in Open Arenas based on Rat Studies, SPIE Conference on Multisensor, Multisource Information Fusion: Architectures, Algorithms, and Applications, 29 April – 1 May, Baltimore, MD.
22. Elibol, E., and Weitzenfeld, A., 2012, Experimental studies on variable motor stiffness during humanoid robot walking, Workshop on Variable stiffness actuators moving the robots of tomorrow, ICRA, St. Paul, MN, May 14.
23. Weitzenfeld, A., Fellous, J.M., Barrera, A., and Tejera, G., 2012, Allothetic and idiothetic sensor fusion in rat-inspired robot localization, SPIE Conference on Multisensor, Multisource Information Fusion: Architectures, Algorithms, and Applications, 23-27 April, Baltimore, MD.
24. Barrera, A., Caceres, A., Weitzenfeld, A., and Ramirez-Amaya, V., 2011, Comparative Experimental Studies on Spatial Memory and Learning in Rats and Robots, Journal of Intelligent and Robotic Systems, Volume 63, Numbers 3-4, 361-397, Sept (DOI: 10.1007/s10846-010-9467-y).
25. Weitzenfeld, A., Ejnoui, A., and Dominey, P., 2010, Human Robot Interaction: Coaching to Play Soccer via Spoken-Language, Humanoids 2010 Workshop on Humanoid Robots Learning from Human Interaction, Dec 7, Nashville, Tennessee.
26. Barrera, A., Weitzenfeld, A., Caceres, A., and Ramirez-Amaya, V., 2010, Spatial Memory and Learning: Towards a Set of Metrics to Evaluate Task Performance in Rats and Robots, IEEE-RAS International Conference on Robotics and Automation, May 3-8, Anchorage, Alaska.
27. Barrera, A., and Weitzenfeld, A., 2009, Behavioral Match Evaluation of Spatial Cognition in Rats and Robots, EMBC 2009, International Conference of the IEEE Engineering in Medicine and Biology Society, September 2-6, Minneapolis, Minnesota.
28. Weitzenfeld, A., and Barrera, A., 2009, A Multi-Level Robotic Architecture for Biologically-inspired Modeling, EMBC 2009, International Conference of the IEEE Engineering in Medicine and Biology Society, September 2-6, Minneapolis, Minnesota.
29. Weitzenfeld, A., Ramos, C, and Dominey, P., 2009, Coaching Robots to Play Soccer via Spoken-Language, RoboCup Symposium, RoboCup 2008: Robot Soccer World Cup XII, L. Iocchi et al. (Eds.), LNCS/LNAI 5399, pp. 379–390, Springer-Verlag, ISSN 0302-9743.
30. Torres, E., and Weitzenfeld, A., 2008, RoboCup Small-Size League: Using Neural Networks to Learn Color Segmentation during Visual Processing, ENRI-LARS 2008, Oct 29-30, Salvador, Brasil.
31. Barrera, A., and Weitzenfeld, A., 2008, Computational Modeling of Spatial Cognition in Rats and Robotic Experimentation: Goal-Oriented Navigation and Place Recognition in Multiple Directions, BioRob 2008, Oct 19-22, Scottsdale, AZ, USA.
32. Barrera, A., and Weitzenfeld, A., 2008, Biologically-inspired Robot Spatial Cognition based on Rat Neurophysiological Studies, Journal of Autonomous Robots, Springer, Vol 25, No. 1-2, pp. 147-169, Aug, ISSN 0929-5593.

33. Savage, J, Ayala, F, Cuellar, S, Weitzenfeld A, 2008, The use of scripts based on conceptual dependency primitives for the operation of service mobile robots, RoboCup Symposium, RoboCup 2008: Robot Soccer World Cup XII, L. Iocchi et al. (Eds.), LNCS/LNAI 5399, pp. 284-295, Springer-Verlag, ISSN 0302-9743.
34. Weitzenfeld, A., 2008, A Prey Catching and Predator Avoidance Neural-Schema Architecture for Single and Multiple Robots, Journal of Intelligent and Robotics Systems, Springer, Vol. 51, No. 2, pp 203-233, Feb, ISSN 0921-0296.
35. Weitzenfeld, A., 2008, From Schemas to Neural Networks: A Multi-level Modeling Approach to Biologically-Inspired Autonomous Robotic Systems, Journal of Robotics and Autonomous Systems, Elsevier, Vol. 56, No. 2, pp. 177-197, Feb, ISSN 0921-8890.
36. Weitzenfeld, A., Barrera, A., and Morales, M., 2007, Cognitive Robotics: A Multilevel Approach, Mexican Workshop on Artificial Intelligence, MICAI 2007, Aguascalientes, Mexico, Nov 5-6.
37. Obraczka, K., Boice, J., Weitzenfeld, A., Martínez, L., Francois, J.P., Levin, A., 2007, StAR: Ad-Hoc Wireless Networking for Autonomous Multi-Robot Coordination, Robocomm 2007, Athens, Greece, Oct 15-17.
38. Weitzenfeld, A., and Dominey, P., 2007, Cognitive Robotics: Command, Interrogation and Teaching in Robot Coaching, RoboCup Symposium, RoboCup 2006: Robot Soccer World Cup X, G. Lakemeyer et al. (Eds.), LNCS/LNAI 4434, pp. 379-386, Springer-Verlag, ISSN 0302-9743.
39. Barrera, A., and Weitzenfeld A., 2007, Rat-inspired Robot Spatial Cognition and Goal-oriented Navigation, MED 2007, Athens, Greece, June 26-29.
40. Barrera, A., and Weitzenfeld A., 2007, Bio-inspired Model of Robot Spatial Cognition: Topological Place Recognition and Target Learning, CIRA 2007, Jacksonville, Florida, June 20-23.
41. Weitzenfeld A., 2007, Multi Robot Systems: The EagleKnights/RoboBulls Small-Size League RoboCup Architecture, FCRAR 2007, Tampa, Florida, May 31-June 1.
42. Weitzenfeld, A., and Dominey, P., 2007, Cognitive Robotics: Robot Soccer Coaching using Spoken Language, in "Mobile Robots, Moving Intelligence", Editor Aleksandar Lazinica, ARS Books, pp 279-294.
43. Weitzenfeld, A., Martínez, L., Francois, J.P., Levin, A., Obraczka, K., Boice, J., 2006, Beyond RoboCup: Ad-hoc networking for autonomous mobile robots, International Conference on Mechatronics Technology, Mexico City, Mexico, November 20-24.
44. Weitzenfeld A., Vallesa, A., and Flores, H., 2006, A Biologically-Inspired Wolf Pack Multiple Robot Hunting Model, LARS 2006, Santiago Chile, Oct 26-27.
45. Weitzenfeld, A., Martínez, L., Francois, J.P., Levin, A., Obraczka, K., Boice, J., 2006, Multi-Robot Systems: Extending RoboCup Small-Size Architecture with Local Vision and Ad-Hoc Networking, LARS 2006, Santiago Chile, Oct 26-27.
46. Soto-Ruiz, M., and Weitzenfeld A., 2006, Soccer Dribbler Design for the Eagles Knights RoboCup Small Size Robot, LARS 2006, Santiago Chile, Oct 26-27.
47. Soto-Hernandez, V., and Weitzenfeld A., 2006, Ant Colony Algorithm for Swarm Systems, LARS 2006, Santiago Chile, Oct 26-27.

48. Barrera, A., and Weitzenfeld A., 2006, Bio-inspired Model of Robot Adaptive Learning and Mapping, IROS – International Robots and Systems Conference, Beijing, China, Oct 9-13.
49. Barrera, A., and Weitzenfeld A., 2006, Biologically Inspired Neural Controller for Robot Learning and Mapping, IJCNN – International Joint Conference on Neural Networks, Vancouver, Canada, July 16-21.
50. Barrera, A., and Weitzenfeld A., 2006, Return of the Rat: Biologically-Inspired Robotic Exploration and Navigation, BioRob 2006, Feb 20-22, Pisa, Italy.
51. Dominey, P., Weitzenfeld, A., 2005, Robot Command, Interrogation and Teaching via Social Interaction, IEEE Conference on Humanoid Robotics 2005, December 5-7, Tsukuba, Japan.
52. Dominey, P., Weitzenfeld, A., 2005, Levels of Interaction Allowing Humans to Command, Interrogate and Teach a Communicating Object: Lessons Learned From Two Robotic Platforms, Smart Objects & Ambient Intelligence, October 12-14, Grenoble, France.
53. Barrera, A., and Weitzenfeld A., 2005, A robotic navigation model inspired on the rat hippocampus: simulation with NSL, Proc. 2nd IEEE-RAS Latin American Robotics Symposium, Sao Luis, Brasil, Sept 20-23.
54. Martínez-Gómez, J.A., Weitzenfeld, A., 2005, Real Time Localization in Four Legged RoboCup Soccer, Proc. 2nd IEEE-RAS Latin American Robotics Symposium, Sao Luis, Brasil, Sept 20-23.
55. Martínez-Gómez, L.A, Moneo, F., Sotelo, D., Soto, M., Weitzenfeld, A., 2005, Design and Implementation of a Small Size RoboCup Soccer Team, Proc. 2nd IEEE-RAS Latin American Robotics Symposium, Sao Luis, Brasil, Sept 20-23.
56. Flores Ando, F., and Weitzenfeld, A., 2005, Visual Input Compensation using the Crowley-Arbib Saccade Model, Proc. International Conference on Advanced Robotics ICAR, Seattle, USA, July 17-20.
57. Martínez-Gómez, L.A., and Weitzenfeld, A., 2004, Real Time Vision System for a Small Size League Team, Proc. 1st IEEE-RAS Latin American Robotics Symposium, ITAM, Mexico City, October 28-29.
58. Lecorne, S., and Weitzenfeld, A., 2004, Robot Navigation using Stereo Vision, Proc. 1st IEEE-RAS Latin American Robotics Symposium, ITAM, Mexico City, October 28-29.
59. Flores Ando, F., and Weitzenfeld, A., 2004, Alternatives for the Implementation of the Crowley-Arbib Saccade Model in a Robotic System, Proc. 1st IEEE-RAS Latin American Robotics Symposium, ITAM, Mexico City, October 28-29.
60. Barrera, A., and Weitzenfeld, A., 2004, Biologically-inspired robotic mapping as an alternative for metric and topological approaches, Proc. 1st IEEE-RAS Latin American Robotics Symposium, ITAM, Mexico City, October 28-29.
61. Cerón, R., and Weitzenfeld, A., 2004, MIRO: Middleware for controlling biologically inspired mobile robots, Proc. 1st IEEE-RAS Latin American Robotics Symposium, ITAM, Mexico City, October 28-29.
62. Vallesa Sánchez, A.J., and Weitzenfeld, A., 2004, A Multi-Robot Hunting Model, Proc. 1st IEEE-RAS Latin American Robotics Symposium, ITAM, Mexico City, October 28-29.
63. Weitzenfeld, A., 2004, MIRO: A Distributed Embedded Architecture for Visually-guided Neuroethological Autonomous Robots, Journal of Robotics and Applications, Vol 447 (27),

- ACTA Press, Proc. 10th IASTED International Conference on Robotics and Applications, Honolulu, Hawaii, August 23-25.
64. Cervantes-Perez, F., Cairó, O., Incera, J., Weitzenfeld, A., 2004, Building Computational Agents Using Neuronal Networks, Schema Theory and Artificial Intelligence, Proceeding MICAI 2004 Workshop on Intelligent Computing, Xalapa, Mexico, April 26-27.
 65. Weitzenfeld A., 2003, The Neural Simulation Language, in The Handbook of Brain Theory and Neural Networks, 2nd Edition, ed. Michael Arbib, MIT Press.
 66. Weitzenfeld, A., Gutierrez-Nolasco, S., Venkatasubramanian, N., 2003, Controlling Mobile Robots with Distributed Neuro-Biological Systems, Proc. AINS 2003, 2nd Annual Symposium on Autonomous Intelligent Networks and Systems, SRI, Menlo Park, CA, June 30 – July 3.
 67. Weitzenfeld A., Gutierrez-Nolasco S., and Venkatasubramanian N., 2003, MIRO: An Embedded Distributed Architecture for Biologically inspired Mobile Robots, Proc ICAR-03, 11th International Conference on Advanced Robotics, Coimbra, Portugal, June 30 – July 3.
 68. Weitzenfeld A., 2003, Embedded Mobile Systems: From Brain Theory To Neural-based Robots, Proc MED '03, 11th Mediterranean Conference on Control and Automation, Rhodes, Greece, June 17-20.
 69. Sigala-Alanis, R., Cervantes, F., Weitzenfeld, A., 2002, MONEURAN: A Neuroethological Model for Prey Catching and Predator Avoidance Behaviors in Anurans, ASM 2002, Vol 363 (162), ACTA Press, June 25-28, Crete, Greece.
 70. Sigala-Alanis, R., Cervantes, F., Weitzenfeld, A., 2002, MONEURAN: A Neuroethological Computational Model for Visuomotor Coordination of Prey Catching and Predator Avoidance Behaviors in Anurans, in Proc. TAINA-2002, Workshop on Soft Computing at MICAI'2002: 2nd Mexican International Conference on Artificial Intelligence, Merida, Yucatan, Mexico, April.
 71. Weitzenfeld, A., 2002, NSL/ASL: A Framework for Modeling and Simulation of Biologically inspired Neural based Adaptive Autonomous Robotic Agents, Proc. EMCSR 2002, Vienna, Austria, April 2-5.
 72. Tanaka, T., and Weitzenfeld, A., 2002, Adaptive Resonance Theory, in The Neural Simulation Language: A System for Brain Modeling, by A. Weitzenfeld, M.A. Arbib and A. Alexander, pp. 157-169, MIT Press.
 73. Weitzenfeld, A., and Arbib, M.A., 2002, Depth Perception, in The Neural Simulation Language: A System for Brain Modeling, by A. Weitzenfeld, M.A. Arbib and A. Alexander, pp. 171-187, MIT Press.
 74. Corbacho, F., and Weitzenfeld, A., 2002, Retina, in The Neural Simulation Language: A System for Brain Modeling, by A. Weitzenfeld, M.A. Arbib and A. Alexander, pp. 189-206, MIT Press.
 75. Moran, F., Chacón, J.C., Andrade, M.A., and Weitzenfeld, A., 2002, Receptive Fields, in The Neural Simulation Language: A System for Brain Modeling, by A. Weitzenfeld, M.A. Arbib and A. Alexander, pp. 207-218, MIT Press.
 76. Fagg, A., and Weitzenfeld, A., 2002, A Model of Primate Visual-Motor Conditional Learning, in The Neural Simulation Language: A System for Brain Modeling, by A. Weitzenfeld, M.A. Arbib and A. Alexander, pp. 225-259, MIT Press.

77. Corbacho, F., and Weitzenfeld, A., 2002, Learning to Detour, in *The Neural Simulation Language: A System for Brain Modeling*, by A. Weitzenfeld, M.A. Arbib and A. Alexander, pp. 319-341, MIT Press.
78. Wiskott, L., von der Malsburg, C., and Weitzenfeld, A., 2002, Face Recognition by Dynamic Link Matching, in *The Neural Simulation Language: A System for Brain Modeling*, by A. Weitzenfeld, M.A. Arbib and A. Alexander, pp. 343-372, MIT Press.
79. Weitzenfeld, A., Cervantes, F., Sigala, R., 2001, NSL/ASL: Simulation of Neural based Visuomotor Systems, *Proc. IJCNN 2001 International Joint Conference on Neural Networks*, Washington DC, July 14-19, Neural Networks, Vol 2, pp. 1065-1070.
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Refereed Publications (Biomedical)

1. Onal, S., Lai-Yuen, S., Bao, P., Weitzenfeld, A., and Hart, S., 2015, Automated Localization of Multiple Pelvic Bone Structures on MRI, IEEE Journal of Biomedical and Health Informatics (Accepted).

2. Iman Nekooeimehr, Susana Lai-Yuen, Paul Bao, Alfredo Weitzenfeld, Stuart Hart, 2015, Automatic Tracking and Segmentation of Pelvic Floor Organs on Dynamic Magnetic Resonance Imaging, BMES 2015 Annual Meeting, "Biomedical Imaging and Optics" Track, October 7-10, Tampa, Florida.
3. Edna Márquez, Jesús Savage, Jaime Berumen, Christian Lemaitre, Ana Lilia Laureano-Cruces, Ana Espinosa, Ron Leder, Alfredo Weitzenfeld, 2015, A decision support system based in multi-agent technology for gene expression analysis, International Journal of Intelligence Science (IJIS), 5(3):158-172, DOI: 10.4236/ijis.2015.53014, April, Scientific Research Publishing.
4. Onal, S., Lai-Yuen, S., Bao, P., Weitzenfeld, A., Hogue, and Hart, S., 2015, Quantitative assessment of new MRI-based measurements to differentiate low and high stages of pelvic organ prolapse using support vector machines, International Urogynecology Journal, ISSN 0937-3462, 26(5):707-713, DOI 10.1007/s00192-014-2582-8.
5. Onal, S., Lai-Yuen, S., Bao, P., Weitzenfeld, A., Hart, S., 2014, Prediction Model Using Clinical and MRI-based Features for Pelvic Organ Prolapse Diagnosis, 2014 Biomedical Engineering Society, October 22-25, San Antonio, TX.
6. Onal, S., Lai-Yuen, S., Bao, P., Weitzenfeld, A., and Hart, S., 2014, Fully Automated Localization of Multiple Pelvic Bone Structures on MRI, IEEE 36th International Conference on Engineering in Medicine and Biology Society (EMBC'14), Chicago, Illinois, USA, August, 26-30, 2014.
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10. Onal, S., Lai-Yuen, S., Bao, P., Weitzenfeld, A., Greene, K., and Hart, S., 2013, Image Based Measurements for Evaluation of Pelvic Organ Prolapse," American Urogynecologic Annual Scientific Meeting, Las Vegas, NV, October 16-19.
11. Onal, S., Lai-Yuen, S., Bao, P., Weitzenfeld, A., and Hart, S., 2013, Combination of Supervised and Unsupervised Segmentation of Pubic Bone for Diagnosis of Pelvic Organ Prolapse, INFORMS Annual Meeting, Minneapolis, MN, October 6-9.
12. Onal, S., Lai-Yuen, S., Bao, P., Weitzenfeld, A., Greene, K., and Hart, S., 2013, Image Based Measurements for Evaluation of Pelvic Organ Prolapse, Annual Meeting of the International Urogynecological Association, Dublin, Ireland, May 28 – June 1.
13. Onal, S., Lai-Yuen, S., Bao, P., Weitzenfeld, A., and Hart, S., 2013, MRI-based Segmentation of Pelvic Bone for Evaluation of Pelvic Organ Prolapse, USF Annual Graduate Student and Post-Doctoral Scholar Research Symposium, Tampa, FL, March 22.
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Engineering, JBiSE, Scientific Research Publishing, Irvine, CA, Vol 6, No 1, pp 45-55, January.

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Refereed Publications (Software Engineering and Business)

1. Larsen, J., Plank, R., Pratt, R., Ejnoui, E., Budd, S., Weitzenfeld, A., Artis, A., Armitage, W., and Gaspar, A., 2009, Serving the Business Community: Determining Training and Education Needs to Benefit Local Manufacturing and Distribution Companies, Polytechnic Summit, July 16-17, Stout, Wisconsin.
2. Weitzenfeld, A., and Guardati, S., 2008, Software Engineering: The Process for Software Development, Introduction to Computing (in Spanish), Editors A. Gomez and I. Ania, pp. 355–397, Thomson Learning.
3. Alvarez, F., Muñoz, J., Cardona, P., Weitzenfeld, A., 2006, Interpretation of CMMi for the small software industry, SIMS 2006, Informatics Symposium, Uruguaiana, Brasil, Nov 8-10.
4. Alvarez, F., Muñoz, J., and Weitzenfeld, A., 2006, CMMi for Small Business: Initial Tailoring of a Mexican organization, IRMA Information Resources Management Association, Conference Proceedings, Washington, DC, May 21 – 24.
5. Alvarez, F., Cardona, J.S., and Weitzenfeld, A., 2004, A Computational Systems Software Engineering Undergraduate Curricular Proposal, 3rd ANIEI International Congress on Information and Technology, Nayarit, Mexico, October 20 – 22.
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7. Alvarez, F., and Weitzenfeld, A., 2004, CMM based Software Development Process Reduction, 3rd Iberoamerican Conference on Systems, Cybernetics and Informatics, Orlando, Florida, July 21 – 25.
8. Alvarez, F., Weitzenfeld, A., 2004, CMM compliance in small organizations, IRMA Information Resources Management Association, Conference Proceedings, New Orleans, Louisiana, May 23 – 26.
9. Mora, M., Forgionne, G., Gelman, O., Cervantes, F., Weitzenfeld, A. and Racynski, S. 2003, Implementation of Decision Making Support Systems: a Systemic Approach. In Tonfoni, G. and Jain, L. (Editors), in Innovations in Decision Support Systems, International Series on Advanced Intelligence, Vol. 3, Adelaide, Australia: Advanced Knowledge International, pp. 17-84.
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11. Mora, M., Gelman, O., Cervantes, F., Mejía, M., Weitzenfeld, A., 2003, A Systemic Approach for the Formalization of the Information Systems Concept: Why Information Systems are Systems?, in Critical Reflections on Information Systems: A Systemic Approach, Editor J. Cano, Idea Group Publishing, pp. 1-30.

12. Mora, M., Cervantes, F., Gelman, O., Forgionne, G., Mejia, M., Weitzenfeld, A., 2003, DMSS Implementation Research: A Conceptual Analysis of the Contributions and Limitations of the Factor-based and Stage-based Streams, in Decision Making Support Systems: Achievements and Challenges for the Next Decade, Editor M. Mora, G. Forgionne, J. Gupta, Idea Group Publishing, pp. 331-357.
13. Alvarez, F., Weitzenfeld, A., 2003, Small Teams CMM based Software Development Process Reduction, 1st International Workshop on Software Quality, Havana, Cuba, March 17 - 21.
14. Alvarez, F., Weitzenfeld, A., Cairo, O., 2002, The Application of CMM based Software Development Process Maturity Model to Small Teams, 9th Symposium on Research and Technological Development, Aguascalientes, Sept 23-27, pp. 76-77.
15. Alvarez, F., and Weitzenfeld, A., 2001, METPRO: A Methodology based on Prototypes, 8th Research and Technological Development Symposium, Aguascalientes, Mexico, pp. 85.
16. Alvarez, F. J., Weitzenfeld, A., 2000, A Method for Rapid Application Development, Proc SSGRR, International Conference on Advances in Infrastructure for Electronic Business, Science, and Education on the Internet, Rome, Italy, July 31-August 6.

Invited Publications

1. Fiorini, P., Weitzenfeld, A., 2014, ICAR to South America, Robotics and Automation Magazine, Vol. 21, No. 2, p 96, June.
2. Ruiz del Solar, J., Weitzenfeld, A., 2009, Regional, Robotics and Automation Magazine, Vol. 16, No. 1, p 115-116, March.
3. Ruiz del Solar, J., Weitzenfeld, A., 2008, Regional, Robotics and Automation Magazine, Vol. 15, No. 2, p 132, June.

Student Posters

1. M. Llofriú, J. Calderon, G. Tejera, J. M. Fellous, A. Weitzenfeld, 2015, Goal-Oriented Robot Navigation Learning using a Multi-Scale Space Representation, USF Research Day, Tampa, FL, November 5.
2. J. Calderon, W. Moreno, A. Weitzenfeld, 2015, Soft Landing in Jumping Robot Using Variable Stiffness, USF Research Day, Tampa, FL, November 5 (Research Poster Award Winner).
3. J. Waugh, M. Shamsi, F. Williams, A. Ross, J. Calderon, M. Llofriú, A. Weitzenfeld, 2015, Design and Control of a Team of Autonomous Omni-Drive Robots for the RoboCup Small Size League, USF Research Day, Tampa, FL, November 5.
4. N. Hudson, C. Drew, F. Williams, M. Shamsi, J. Waugh, A. Weitzenfeld, 2015, RoboBulls SSL Solenoid Kicker Research, USF Research Day, Tampa, FL, November 5 (Research Poster Award Winner).
5. D. Cooper, J. Gaines and A. Weitzenfeld, 2015, USF STARS Corps, STARS Celebration, Charlotte, NC, August 13-15.
6. Shamsi, M., Williams, F., Waugh, J., Llofriú, M., Calderon, J., Weitzenfeld, A., 2015, Control of a Team of Omni-Directional Robots for the RoboCup SSL, USF Undergraduate Research Colloquium, Tampa, FL, April 9.
7. Calderon, J., Moreno, W., Weitzenfeld, A., 2014, Reduce impact force in landing phase of jumping process for humanoid robots, USF Research Day, Tampa, FL, November 19.

8. Shamsi, M., Ghaedi, N., Waugh, J., Calderon, J., Llofriu, M., Williams, F., Gillarde, R., Weitzenfeld, A., 2014, Control and Coordination of a Team of Differential and Omni Drive Autonomous Robots for the Robocup SSL, USF Research Day, Tampa, FL, November 19.
9. Ghaedi, N., Cruz, W., Cooper, D., and Weitzenfeld, A., 2014, Robobulls: Collaboration in Multiple Mobile Autonomous Robotic Systems, STARS Celebration, Washington DC, August 15.
10. Ross, A., Black, D., Enriquez, A., Cooper, D., and Weitzenfeld, A., 2014, USF K-8 Mentoring Outreach at Nancy Bartels Middle School, STARS Celebration, Washington DC, August 15.
11. Cooper, D., and Weitzenfeld, A., 2014, USF STARS Corps, STARS Celebration, Washington DC, August 15.
12. Ghaedi, N., Shamsi, M., Ross, A., Weitzenfeld, A., 2014, Robobulls: Collaboration in Multiple Mobile Autonomous Robotic Systems, USF Undergraduate Research Colloquium, Tampa, FL, April 15.
13. Cruz, W., Enriquez, A., Weitzenfeld, A., and Cooper, D., 2013, Lego Evolve, USF Research Day, Tampa, FL, November 15.
14. Enriquez, A., Cruz, W., Weitzenfeld, A., and Cooper, D., 2013, Lego Evolve, STARS Celebration, Atlanta, GA, August 15 (Best Research Poster Award).
15. Black, D., Weitzenfeld, A., and Cooper, D., 2013, Robotics Learning Lab, STARS Celebration, Atlanta, GA, August 15.
16. Cooper, D., Landin, M., and Weitzenfeld, A., 2013, USF STARS Corps 2013, STARS Celebration, Atlanta, GA, August 15.
17. Enriquez, A., Cruz, W., Weitzenfeld, A., Cooper, D., and Thomas, N., 2012, Lego and Soccer, Poster, STARS Celebration, Hampton, VA, August 13.

Technical Reports

1. Shamsi, M., Waugh, J., Williams, F., Ross, A., Llofriu, M., Calderon, J., Weitzenfeld, A., 2015, RoboBulls 2015: RoboCup Small Size League, Team Description Paper, USF, Tampa, FL.
2. Lallee, S., Jouen, A., Pettit, M., Madden, C., Boucher, J.D., Weitzenfeld, A., Dominey, P., 2011, Cooperative Human Robot Interaction with the NAO Humanoid, Radical Dudes, RoboCup@Home, Team Description Paper, INSERM/USF, France/USA.
3. Torres, E., Paolo, P., Cordova, A., Ruiz, H., Sanchez, J., Martinez, M., Morales, M., Holland, M., Blackshear, W., Hewell, C., and Weitzenfeld, A., 2010, ITAM EagleKnights / USF Robobulls 2010: Small-Size League, Team Description Paper, Mexico/USA.
4. Dominey, P., van der Zant, T., Lallee, S., Jouen, A., Hinaut, X., Weitzenfeld, A., van Hoof, H., Davila-Chacon, J., 2010, Cooperative Human Robot Interaction with the Nao Humanoid, Radical Dudes, RoboCup@Home, Team Description Paper, INSERM/ITAM/USF, France/Mexico/USA.
5. Torres E., Rodriguez, J., Paolo, P., Moses, A., Blackburn, J., Morales, M., and Weitzenfeld, A., 2009, ITAM EagleKnights / USF Robobulls 2009: Small-Size League, Team Description Paper, Mexico/USA.

6. Ramos, C., Rivera C., Rios, G., Herrera, E., Morales, M., and Weitzenfeld, A., 2009, EagleKnights 2009: Two-Legged Standard Platform League, Team Description Paper, ITAM, Mexico.
7. Dominey, P., Lallee, S., Khamassi, M., Lu, Z., Lallier, C., Boucher, J.D., Weitzenfeld, A., Ramos, 2009, Cooperative Human Robot Interaction with the Nao Humanoid, Radical Dudes, RoboCup@Home, Team Description Paper, INSERM/ITAM/USF, France/Mexico/USA.
8. Torres E., Rodriguez, J., Moses, A., Weitzenfeld, A., 2008, ITAM EagleKnights / USF RoboBulls 2008: Small-Size League, Team Description Paper, Mexico/USA.
9. Weitzenfeld, A., Martínez, A., Ramos, C., and Rivera C., 2008, EagleKnights 2008: Two-Legged Standard Platform League, Team Description Paper, ITAM, Mexico.
10. Torres E., Martínez, L.A., Muñoz, M., Rodríguez J., Soto, M., Silva, J., Murrieta, Y., Faba A., Chavarría, C., Beebe, J., Castillo, M., Garcia, R., Gill, D., Gupta, S., Gutierrez, A., Lindemuth, M., Kalyadin, D., Kern, J., King, S., Kontitsis, M., Moses, A., Palankar, M., Silverman, A., Tsalatsanis, A., and Weitzenfeld, A., 2007, ITAM EagleKnights / USF RoboBulls 2007: Small-Size League, Team Description Paper, Mexico/USA.
11. Weitzenfeld, A., Martínez, A., Muciño, B., Serrano, G., Ramos, C., and Rivera C., 2007, EagleKnights 2007: Four-Legged League, Team Description Paper, ITAM, Mexico.
12. Martínez-Gómez, L.A, Torres, E., Soto, M., Ponce, O., Murrieta, Y., Chavarría, C., Faba, A., Silva, J., Espinosa, L., Velázquez, E., Muñoz, M., and Weitzenfeld, A., 2006, Eagle Knights 2006: Small-Size League, Team Description Paper, ITAM, Mexico.
13. Weitzenfeld, A., Medrano, A., Martínez, A., Muciño, B., Serrano, G., Ramos, C., and Rivera C., 2006, Eagle Knights 2006: Four-Legged League, Team Description Paper, ITAM, Mexico.
14. Dominey, P., and Weitzenfeld, A., 2006, EK-Lyon 2006: RoboCup@Home, Team Description Paper, ITAM, Mexico.
15. Martínez-Gómez, L.A, Moneo, F., Sotelo, D., Soto, M., Weitzenfeld, A., 2005, Eagle Knights 2005: Small-Size League Team Description Paper, ITAM, Mexico.
16. Martínez-Gómez, J.A, Medrano, A., Chávez, A., Muciño, B., Weitzenfeld, A., 2005, Eagle Knights 2005: Four-Legged League, Team Description Paper, ITAM, Mexico.
17. Cervantes-Perez, F., Flores, L.R., Weitzenfeld, A., and Arkin, R., 2000, Neuronal Networks Working at Multiple Temporal Scales as a Basis for Amphibia's Prey-Catching Behavior.
18. Weitzenfeld, A., 1994, The Abstract Schema Language ASL: A Hierarchical Computational Model for Distributed Heterogeneous System.
19. Weitzenfeld, A., 1993, Operational Semantics for the Abstract Schema Language ASL, CNE-TR-93-03, Computer Science Dept., USC, Los Angeles, CA.
20. Weitzenfeld, A., 1993, ASL: A Hierarchical Computational Model for Distributed Heterogeneous System, CNE-TR-93-02, Computer Science Dept., USC, Los Angeles, CA.
21. Weitzenfeld, A., 1992, A Unified Computational Model for Schemas and Neural Networks in Concurrent Object-Oriented Programming, PhD Thesis, CS/CNE-TR-92-03, Computer Science Dept., USC, Los Angeles, CA.
22. Weitzenfeld, A., 1991, NSL: Neural Simulation Language, Version 2.1, CNE-TR 91-05, Center for Neural Engineering, USC, Los Angeles, CA.

23. Weitzenfeld, A., 1990, NSL: Neural Simulation Language, Version 2.0, CNE-TR 90-01, Center for Neural Engineering, USC, Los Angeles, CA.
24. Weitzenfeld, A., 1989, NSL: Neural Simulation Language, Version 1.0, CNE-TR 89-02, Center for Neural Engineering, USC, Los Angeles, CA.

Conference Talks

1. A Spatial Cognition Model Integrating Grid Cells and Place Cells, 2015, International Joint Conference on Neural Networks, IJCNN 2015, July 12-17, Killarney, Ireland.
2. Spatial Cognition: Robot Localization in Open Arenas based on Rat Studies, 2013 SPIE Conference on Multisensor, Multisource Information Fusion: Architectures, Algorithms, and Applications, Baltimore, MD, Apr 29.
3. Lego and Soccer, 2012 STARS Celebration, Hampton, VA, August 13.
4. Allothetic and idiothetic sensor fusion in rat-inspired robot localization, 2012 SPIE Conference on Multisensor, Multisource Information Fusion: Architectures, Algorithms, and Applications, Baltimore, MD, April 25.
5. Human Robot Interaction: Coaching to Play Soccer via Spoken-Language, Humanoids 2010 Workshop on Humanoid Robots Learning from Human Interaction, Nashville, TN, Dec 7.
6. Spatial Memory and Learning: Towards a Set of Metrics to Evaluate Task Performance in Rats and Robots, 2010 Symposium on Multidisciplinary Approaches to Understanding the Mind and Brain, Tucson, Arizona, May 9-11.
7. Spatial Memory and Learning: Towards a Set of Metrics to Evaluate Task Performance in Rats and Robots, IEEE-RAS International Conference on Robotics and Automation 2010, Anchorage, Alaska, May 3-8.
8. Coaching Robots to Play Soccer via Spoken-Language, RoboCup Symposium 2008, Suzhou, China, July 14-20.
9. Rat-inspired Robot Spatial Cognition and Goal-oriented Navigation, Med 2007, Athens, Greece, June 26-29.
10. Multi Robot Systems: The EagleKnights/RoboBulls Small-Size League RoboCup Architecture, FCRAR 2007, Tampa, Florida, June 1, 2007.
11. A Biologically-Inspired Wolf Pack Multiple Robot Hunting Model, LARS 2006, Santiago Chile, Oct 26-27, 2006.
12. Multi-Robot Systems: Extending RoboCup Small-Size Architecture with Local Vision and Ad-Hoc Networking, LARS 2006, Santiago Chile, Oct 26-27, 2006.
13. Soccer Dribbler Design for the Eagles Knights RoboCup Small Size Robot, LARS 2006, Santiago Chile, Oct 26-27, 2006.
14. Ant Colony Algorithm for Swarm Systems, LARS 2006, Santiago Chile, Oct 26-27, 2006.
15. Return of the Rat: Biologically-Inspired Robotic Exploration and Navigation, BioRob 2006, Feb 20-22, Pisa, Italy
16. A Robotic Navigation Model Inspired on the Rat Hippocampus: Simulation with NSL, Proc. IEEE-RAS Latin American Robotics Symposium SBAI-LARS, Sao Luis, Brasil, Sept 21, 2005.
17. Design and Implementation of a Small Size RoboCup Soccer Team, Proc. IEEE-RAS Latin American Robotics Symposium SBAI-LARS, Sao Luis, Brasil, Sept 21, 2005.

18. Real Time Localization in Four Legged RoboCup Soccer, Proc. IEEE-RAS Latin American Robotics Symposium SBAI-LARS, Sao Luis, Brasil, Sept 21, 2005.
19. Visual Input Compensation using the Crowley-Arbib Saccade Model, Proc. International Conference on Advanced Robotics ICAR, Seattle, USA, July 17-20, 2005.
20. MIRO: A Distributed Embedded Architecture for Visually-guided Neuroethological Autonomous Robots, Proc. 10th IASTED International Conference on Robotics and Applications, Honolulu, Hawaii, August 23-25, 2004.
21. MIRO: An Embedded Distributed Architecture for Biologically inspired Mobile Robots, Proc ICAR-03, 11th International Conference on Advanced Robotics, Coimbra, Portugal, June 30 – July 3, 2003.
22. Embedded Mobile Systems: From Brain Theory To Neural-based Robots, Proc MED '03, 11th Mediterranean Conference on Control and Automation, Rhodes, Greece, June 17-20, 2003.
23. MIRO: Adaptive Middleware for Mobile Internet2 Robots, CUDI Workshop, Ensenada, Mexico, April 2003.
24. MIRO: Adaptive Middleware for Mobile Internet2 Robots, UC MEXUS CONACYT Advanced Network Services Internet 2 Workshop, Riverside, CA, February 2003.
25. NSL/ASL: A Framework for Modeling and Simulation of Biologically inspired Neural based Adaptive Autonomous Robotic Agents, Proc. EMCSR 2002, Vienna, Austria, April 2-5, 2002.
26. MIRO: Adaptive Middleware for Mobile Internet2 Robots, CUDI Workshop, Guadalajara, Mexico, August, 2001.
27. NSL/ASL: Simulation of Neural based Visuomotor Systems, Proc. IJCNN 2001 International Joint Conference on Neural Networks, Washington DC, July 14-19, 2001.
28. ASL/NSL: A Multi-level Distributed Approach to Neural-based Architectures, Symposium on Computational and Cognitive Neuroscience, August 11-12, 2000.
29. Neuronal Networks Working at Multiple Temporal Scales as a Basis for Prey-Catching Habituation in Toads, Symposium on Computational and Cognitive Neuroscience, University of Southern California, Los Angeles, California, USA, August 11-12, 2000.
30. A Multi-level Approach to Biologically Inspired Robotic Systems, Proc of NNW 2000, 10th International Conference on Artificial Neural Networks and Intelligent Systems, Prague, Czech Republic, July 9-12, 2000.
31. ASL/NSL: A Multi-level Approach to Neural-based Architectures, Proc ICAI 2000 International Conference on Artificial Intelligence, Las Vegas, Nevada, June 26-29, 2000.
32. NSL/ASL: Distributed Simulation of Modular Neural Networks, Proc. MICAI 2000 Mexican International Conference on Artificial Intelligence, Acapulco, Mexico, April 14-18, 2000.
33. A Neural Schema Architecture for Autonomous Robots, Proc. 1998 International Symposium on Robotics and Automation, Saltillo, Coahuila, Mexico, Dec 12-14, 1998.
34. Visualization of Multi-level Neural-based Robotic Systems, Proc 2nd Conference on Visual Computing, Mexico, DF, Mexico, April 20-24, 1998.
35. Multi-level Simulation Methodology: A Computational and Experimental Approach to Neural Systems, Proc. 1998 NSF Design and Manufacturing Grantees Conference, Monterrey, Mexico, Jan 5-8, 1998.

36. Ecological Robotics: A Schema-Theoretic Approach, Proc. 1998 NSF Design and Manufacturing Grantees Conference, Monterrey, Mexico, Jan 5-8, 1998.
37. Object Oriented Software Process, Human Brain Project Workshop, Los Angeles, CA, 1996.
38. Distributed Computing with CORBA, Human Brain Project Workshop, Los Angeles, CA, 1996.
39. Hierarchical and Distributed Neural Network Simulation and its Application to Autonomous Robots, Engineering Institute 40th Anniversary, UNAM, Mexico City, 1996.
40. Hierarchical and Distributed Neural-Network Simulation Systems, NNACIP International Workshop on Neural Networks Applied to Control and Image Processing, Mexico City, 1994.
41. ASL: Hierarchy, Composition, Heterogeneity, and Multi-Granularity in Concurrent Object-Oriented Programming, Proceeding of the Workshop on Neural Architectures and Distributed AI: From Schema Assemblages to Neural Networks, Center for Neural Engineering, USC, Los Angeles, CA, Oct 19-20, 1993.
42. Hierarchical and Multi-Granular Neural-Based Simulation Systems, Proceedings of 1st Workshop on Connectionist Supercomputers, ICSI, Berkeley, CA, 1993.
43. Hierarchical and Multi-Granular Neural-Based Simulation Systems, ACM-TACART, Los Angeles, CA, 1993.
44. An Overview of ASL: Schemas and Neural Networks in Concurrent Object-Oriented Programming, Proceedings of OOPSLA '92, Workshop on Next Generation Computing, Vancouver, Canada, 1992.
45. A Concurrent Object-Oriented Framework for the Simulation of Neural Networks, Proceedings of ECOOP/OOPSLA '90, Workshop on Object-Based Concurrent Programming, Ottawa, Canada, April, 1991.
46. English/Spanish Machine Translation, Southern California AI Society, Los Angeles, CA, 1985.

Invited Talks

1. A Spatial Cognition Model Integrating Grid Cells and Place Cells, International Joint Conference on Neural Networks, IJCNN 2015 Workshop, Spatial Representation in Biology and Robots, Killarney, Ireland, July 17, 2015.
2. Spatial Cognition in Biologically Inspired Robotics, Keynote Speaker, CLEI 2014, Montevideo, Uruguay, Sept 17, 2014.
3. Spatial Cognition in Robots based on Rat Studies, UNAM, Mexico City, Mexico, Aug 29, 2013.
4. Robotics, Bartels Middle School, Great America Teach-In, Tampa, FL, USA, Nov 15, 2012.
5. Robotics, Education Panel, 1st PolySTEM Conference, USF Polytechnic, Lakeland, FL, USA, April 9, 2012.
6. Biologically-Inspired Robotics, Research Panel, 1st PolySTEM Conference, USF Polytechnic, Lakeland, FL, USA, April 9, 2012.
7. Biologically-Inspired Robotics: Spatial Cognition in Rats, University of Miami, Miami, FL, USA, Feb 15, 2012.
8. RoboCup, Steinbrenner High School, Tampa, FL, USA, Nov 29, 2011.

9. Robotics, Steinbrenner High School, Tampa, FL, USA, Nov 29, 2011.
10. Robotics, Bartels Middle School, Great America Teach-In, Tampa, FL, USA, Nov 17, 2011.
11. Robotics, Hunter Elementary School, Great America Teach-In, Tampa, FL, USA, Nov 17, 2011.
12. Biologically-Inspired Robotics: Spatial Cognition in Rats, Denver University, Denver, CO, USA, Feb 10, 2011.
13. Robotics, Hunter Elementary School, Great America Teach-In, Tampa, FL, USA, Nov 18, 2010.
14. Biologically-Inspired Robotics: Spatial Cognition in Rats, Robotics Summer School, Universidad Santo Tomas, Bogota, Colombia, May 21, 2010.
15. RoboCup, Robotics Summer School, Universidad Santo Tomas, Bogota, Colombia, May 20, 2010.
16. Robotics, Dale R. Fair Elementary School, Great America Teach-In, Babson Park, FL, USA, March 5, 2010.
17. Robotics @ USF Polytechnic, Blue Sky West, Lakeland, FL, Feb 9, 2010.
18. Robotics, Hunter Elementary School, Great America Teach-In, Tampa, FL, USA, Nov, 2009.
19. Biologically-Inspired Robotics: Spatial Cognition in Rats, Latin American Robotics Symposium, Valparaiso, Chile, Oct 30, 2009.
20. RoboCup, V Congreso de Informática, Robotica e Inteligencia Artificial, Puerto Vallarta, Mexico, June 11, 2009.
21. Biologically-Inspired Robotics, V Congreso de Informática, Robotica e Inteligencia Artificial, Puerto Vallarta, Mexico, June 12, 2009.
22. USF Robobulls: RoboCup Autonomous Robot Soccer, Colloquium, Information Technology, USF Polytechnic, Lakeland, Florida, Jan 21, 2009.
23. Biologically-Inspired Robotics: Spatial Cognition in Rats, Seminar, School of Engineering, Universidad de la República, Montevideo, Uruguay, Dec 19, 2008.
24. Biologically-Inspired Robotics: Spatial Cognition in Rats, Summer School in Robotics, School of Engineering, Universidad de Chile, Santiago, Chile, Dec 16, 2008.
25. Biologically-Inspired Robotics: Prey Catching and Predator Avoidance in Frogs and Toads, Summer School in Robotics, School of Engineering, Universidad de Chile, Santiago, Chile, Dec 15, 2008.
26. Robotics, Hunter Elementary School, Great America Teach-In, Tampa, FL, USA, Nov, 2008.
27. Biologically-Inspired Robotics: Learning from Nature, CONIELECOMP, Universidad de las Americas - UDLA, Puebla, Mexico, March 4, 2008.
28. Biologically-Inspired Robotics: Learning from Nature, Graduate Seminar, Dept Computer Science, Fordham University, New York, NY, Feb 11, 2008.
29. Biologically-Inspired Robotics: Learning from Nature, School of Artificial Intelligence and Robotics, Universidad Autónoma del Estado de Morelos - UAEM, Cuernavaca, Mexico, Jan 31, 2008.
30. Biologically-Inspired Robotics: Learning from Nature, Graduate Seminar, Dept Mechanical Engineering, Florida Institute of Technology, Melbourne, FL, Nov 16, 2007.

31. Robotics, Hunter Elementary School, Great America Teach-In, Tampa, FL, USA, Nov 14, 2007.
32. Biologically-Inspired Robotics: Learning from Nature, Graduate Seminar, Dept Computer Science, TAMU, College Station, TX, Sept 24, 2007.
33. Biologically-Inspired Robotics: Learning from Nature, Communications Network Group, Dept Computer Science and Engineering, USF, Tampa, FL, June 7, 2007.
34. Biologically-Inspired Robotics: Learning from Nature, Plenary Session, Florida Conference on Recent Advances in Robotics & Robot Showcase FCRAR, Tampa, FL, June 1, 2007.
35. Biologically-Inspired Robotics: Learning from Nature, Electrical and Computer Engineering Department, University of Florida, Gainesville, FL, Feb 8, 2007.
36. Robotics, Hunter Elementary School, Great America Teach-In, Tampa, USA, Nov 16, 2006.
37. Mobile Robotic Systems: From Biology to RoboCup, NSF Workshop on Approximate Dynamic Programming, Cocoyoc, Morelos, México, April 3-6, 2006.
38. RoboCup: Autonomous Robots that Play Soccer, Conference in "Soccer as a Universal Language", UNAM-Acatlán, México, DF, March 24, 2006.
39. Biologically-Inspired Robotics: Learning from Nature, "E. Piaggio" Robotics Research Center, University of Pisa, Pisa, Italy, Feb 23, 2006.
40. Multiple Robotic Systems: From Soccer to Social Cognition, Computer Science and Engineering Department, USF, Tampa, Florida, Feb 13, 2006.
41. Biologically-Inspired Robotics: Learning from Nature, Computer Science and Engineering Department, USF, Tampa, Florida, Feb 10, 2006.
42. The Eagle Knights RoboCup, ORT, Montevideo, Uruguay, Dec, 2005.
43. The Eagle Knights RoboCup Team, Universidad Panamericana, Mexico City, Mexico, Oct, 2005.
44. Multi-Robots Systems: From Soccer to Social Cognition, ORT, Montevideo, Uruguay, Sept, 2005.
45. The Eagle Knights RoboCup Team: Cooperation and Competition in Autonomous Robots, Universidad Juarez Autonoma de Tabasco, Villahermosa, Mexico, Sept, 2005.
46. A Robotic Navigation Model Inspired on the Rat Hippocampus: Motivation, Learning and Mapping, UCSC, Santa Cruz, CA, August, 2005.
47. The Eagle Knights RoboCup Team: Cooperation and Competition in Autonomous Robots, LIP6, Universite Paris VI, Paris, France, April, 2005.
48. The Eagle Knights RoboCup Team: Cooperation and Competition in Autonomous Robots, CNRS-ISC, Lyon, France, April, 2005.
49. RoboCup and Robotics, U. Luca Paccioli, Cuernavaca, December 2004.
50. RoboCup and Robotics, UVM, Lomas Verdes, Mexico City, November 2004.
51. RoboCup and Robotics, ITAM, Mexico City, March 2004.
52. RoboCup, Universidad Autónoma de Aguascalientes, Aguascalientes, Mexico, December 2003.
53. Autonomous Robots, Universidad Autónoma de Aguascalientes, Aguascalientes, Mexico, December 2002.

54. Software Process Development, Health Information Technologies Symposium, Secretary of Defense, Mexico City, December 2002.
55. Autonomous Robotic Agents, UVM, Tlalpan, Mexico City, August 2001.
56. Modeling and Simulation of Autonomous Robotic Agents, 2nd International Congress in Computational Systems, ITESM, Guadalajara, Mexico, March 2000.
57. Modeling and Simulation of Autonomous Robotic Agents, 1st Symposium on Computational Robotics and Vision, ITESM, Cuernavaca, Mexico, November 1999.
58. Modeling and Simulation of Autonomous Robotic Agents, 1st Artificial Intelligence Conference, ITESM, State of Mexico, Mexico, October 1999.
59. Modeling and Simulation of Autonomous Robotic Agents, 3rd International Symposium on Computational Systems and Informatics, Instituto Tecnológico de Zacatecas, Mexico, June 1999.
60. MODERN: Dynamic Modulation of Neural Networks, Computing 98, UNAM, Mexico City, November 1998.
61. Ecological Robotics and Virtual Reality, Virtual Reality in Mexico Symposium, Engineering Department, UNAM, Mexico City, 1997.
62. ASL - A Computer Model for Hierarchical and Distributed Neural Networks, Laforia, Université Paris IV, Paris, France, 1995
63. Schema Language (ASL) for the Development of Autonomous Robotic Systems, Intelligent Robots, Summer Course, Universidad Complutense, El Escorial, Spain, 1995.
64. Object Oriented Programming: Myth and Reality, Computer Programming Industry National Association (ANIPCO), Mexico City, 1995.
65. Hierarchical and Distributed Neural Network Simulation, XI Artificial Intelligence National Conference, Guadalajara, Jalisco, Mexico City, 1994.
66. ASL – Distributed Computational Model, Instituto de Cibernética, UPC, Barcelona, Spain, 1993.
67. ASL - Distributed Computational Model, Universidad Complutense, Madrid, Spain, 1993.
68. The NSL Simulation Language, IBM Research Center, Madrid, Spain, 1990.

PhD Students

1. Martin Llofriu, Spatial Cognition in Rats and Robots, Computer Science and Engineering Dept, College of Engineering, University of South Florida, Tampa, FL, USA (advisor, in process).
2. Juan Calderon, Humanoid Robot Architectures, Electrical Engineering Dept, College of Engineering, University of South Florida, Tampa, FL, USA (advisor, in process).
3. Iman Nekooimehr, Regression Models for Imbalanced Datasets to Predict Risk of Development for Pelvic Organ Prolapse, Industrial Engineering Dept, College of Engineering, University of South Florida, Tampa, FL, USA, (committee member, in process).
4. Leonardo Leottau, Learning of Complex Behaviors based on Training of Recurrent and Relevant Situations in the Context of Robotic Soccer, Electrical Engineering Dept, College of Engineering, University of Chile, Santiago, Chile (committee member, in process).

5. Gonzalo Tejera, Robust Localization by the Interconnection of Grid Cells and Place Cells, Computer Institute, School of Engineering, Universidad de la República, Montevideo, Uruguay, December 2015 (advisor).
6. Ercan Elibol, Analyzing and Reducing Energy Usage in a Humanoid Robot During Standing Up and Sitting Down Tasks, Electrical Engineering Dept, College of Engineering, University of South Florida, Tampa, FL, USA, June 2015 (advisor).
7. Sinal Onal, Automated Localization and Segmentation of Pelvic Floor Structures on MRI to Predict Pelvic Organ Prolapse, Industrial Engineering Dept, College of Engineering, University of South Florida, Tampa, FL, USA, May 2014 (committee member).
8. Alfredo Perez, An Architecture for Global Ubiquitous Sensing, College of Engineering, University of South Florida, Tampa, FL, USA, 2011 (committee member).
9. Alejandra Barrera, A Spatial Cognition and Navigation Model in Rats for the Control of an Autonomous Mobile Robot, DEPFI, School of Engineering, UNAM, Mexico City, Mexico, 2007 (advisor).
10. Manuel Mora, Theoretic Foundation and Applicability of a Systemic Approach to the Study of Implementation Problems in Decision Support Systems, Electrical Engineering Dept, UNAM, Mexico City, Mexico, 2003 (committee member).
11. Felipe Padilla, Methodology for the Design of Applications with Genetic Classification Systems, Electrical Engineering Dept, UNAM, Mexico City, Mexico, 2003 (committee member).
12. Edgar Vallejo, Evolving Insect Locomotion Using Cooperative Genetic Programming, Computer Engineering Dept, ITESM, Cuernavaca, Morelos, Mexico City, Mexico, 2000 (committee member).
13. Osvaldo Cairó, The KAMET Methodology: A Modeling Approach for Knowledge Acquisition from Multiple Experts, Electrical Engineering Dept, UNAM, Mexico City, Mexico, 1997 (committee member).

Master Students

1. Facundo Benavides, Path Planning in Mobile Autonomous Robots, Computer Institute, School of Engineering, Universidad de la República, Montevideo, Uruguay, 2012.
2. Luis Martínez, Robotic Exploration: Vision and Communication, Computer Engineering Dept, ITAM, Mexico City, 2007.
3. Gilberto Anzaldo, Automatic Learning Model Applied to Health Sciences, Engineering Dept, ITAM, Mexico City, 2005.
4. Miguel Saavedra, Buisness Process Orchestration for Collaborative Orders Administration via Web Services, Engineering Dept, ITAM, Mexico City, 2005.
5. Orion Guerrero and Hector Gutierrez, Mobile Internet Services for the Iberoamerican Judicial Network, Engineering Dept, ITAM, Mexico City, 2003.
6. Hugo Reyes, Information Systems for Credit Unions, Engineering Dept, ITAM, Mexico City, 2002.
7. Luis Roberto Flores, Variable Temporal Modulation in the Elicitation of the Prey Acquisition Behavior in Anuran Amphibians, Electrical Engineering Dept, UNAM, Mexico City, 1997.

Undergraduate Students

1. Tristan McKnight, USF Robobulls 2.0 – Rebuilding the Robobulls Web Portal, Information Technology, Computer Science and Engineering Dept, USF, Tampa, FL, December 2014.
2. Ryan Gillarde, USF Robobulls Small-Size League Robot GUI Control, Information Technology, Computer Science and Engineering Dept, USF, Tampa, FL, December 2014.
3. Narges Ghaedi, RoboCup Soccer Software Development, Computer Engineering Dept, USF, Tampa, FL, December 2014.
4. William Cruz, RoboCup Soccer Robot, Information Technology Dept, USF, Lakeland, FL, December 2013.
5. Luthfur Miah, Freedom Square Information Systems Project, Information Technology Dept, USF Polytechnic, Lakeland, FL, April 2012.
6. Wayne Blackshear, RoboCup Small-Size League Robot Design, Information Technology Dept, USF Polytechnic, Lakeland, FL, May 2010.
7. Jesús Rodríguez, Robotics Architectures for the RoboCup Small-Size League, Computer Engineering Dept, ITAM, Mexico City, Mexico, June 2009.
8. Ernesto Torres, Coordination Strategies for Multi-Robot Systems in RoboCup Small-Size League, Computer Engineering Dept, ITAM, Mexico City, Mexico, April 2009.
9. Carlos Ramos, Human Robot Interaction in Coaching Robots to Play Soccer, Computer Engineering Dept, ITAM, Mexico City, Mexico, April 2009.
10. Alonso Martínez, Coordination and Localization in RoboCup Four-Legged League, Computer Engineering Dept, ITAM, Mexico City, Mexico, May 2008.
11. Misael Soto, Experimental Design for the Dribbler Subsystem in the Small-size Robot League, Industrial Engineering Dept, ITAM, Mexico City, Mexico, 2007.
12. David Sotelo, Design and Implementation of ITAM's F-180 Robots, Telematics Engineering Dept, ITAM, Mexico City, Mexico, 2006.
13. Juan Pablo Francois, A Local Vision Architecture for ITAM's Mobile Robots, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2006.
14. Víctor Soto, Multi-Agent System based on Intelligent Colony Algorithms, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2005.
15. Adrián Martínez, Localization System Design for Autonomous Robots, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2005.
16. Francisco Moneo, High-Level Planning System for Robocup, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2005.
17. Rodrigo Cerón, MIRO: A Middleware Architecture for Wireless Robots, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2004.
18. Sylvain Lécorné, Robot Navigation by Stereo Vision, Ecole Nationale Supérieure d'Électronique, Informatique et Radio-Communications de Bordeaux, ENSEIRB, Bordeaux, France, 2004.
19. Luis Martínez, A Vision System for the Small-size Autonomous Robot Team at ITAM, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2004.
20. Alberto Vallesa, Multiple Autonomous Robotic Agents: A Wolf-inspired Hunting Model, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2004.

21. Hernán Arber, Musical Sequentiation with Artificial Intelligence, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2003.
22. Nancy Ramos, A Virtual 3D Graphics Environment, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2003.
23. Alberto Galindo, MMUVI: Interactive Virtual World Modeler, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2003.
24. Ximena Diaz, Virtual Museum, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2003.
25. Rodrigo Sigala, Fundamental Consciousness Elements in Autonomous Artificial Agents, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2002.
26. Juan Gabriel Olarte, Intelligent Agents in Electronic Commerce, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2002.
27. Fernando Rivera, Negotiating Agents in Electronic Commerce, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2001.
28. Francisco Otero Flores, Web Simulation of Autonomous Robotic Agents, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2001.
29. Erika Flores, Cognitive Computer Games, Computer Engineering Dept, ITAM, Mexico City, Mexico, 2000.
30. Sebastian Gutierrez-Nolasco, Design of a Reflective Meta-Architecture for ASL/NSL, Computer Engineering Dept, ITAM, Mexico City, Mexico, 1999.
31. Gerardo Rodriguez, Control of Signal Flow in Neural Networks, Computer Engineering Dept, ITAM, Mexico City, Mexico, 1999.
32. Rodolfo Mares, Design and Implementation of a concurrent virtual machine in Java, Computer Engineering Dept, ITAM, Mexico City, Mexico, 1999.
33. Roberto Olivares, ASL/NSL and MissionLab System Integration: Model and Architecture, Computer Engineering Dept, ITAM, Mexico City, Mexico, 1997.
34. Esther Ontiveros, ORBITAM: A Distributed Object-based System, Computer Engineering Dept, ITAM, Mexico City, Mexico, 1997.
35. Angel Reyes, HeadExpert: An Expert System for Headache Diagnostics, Computer Engineering Dept, ITAM, Mexico City, Mexico, 1997.
36. Claudia Calderas and Salvador Marmol, Design and Implementation of a Distributed Heterogeneous System for the Extended ASL Schema Language, Computer Engineering Dept, ITAM, Mexico City, Mexico, 1996.
37. Alejandra Barrera, Computational Model for the Processing and Dynamic Tactile Signal Representation of the Primate Nervous System, Computer Engineering Dept, ITAM, Mexico City, Mexico, 1995.
38. Thomas MacCarthy and Sonia Schulenberg, Stock Price Prediction using Neural Networks, Computer Engineering Dept, ITAM, Mexico City, Mexico, 1994.
39. Margarita Sordo and Daniel Curiel, Visual Pattern Recognition based on Neural Networks, Computer Engineering Dept, ITAM, Mexico City, Mexico, 1994.

REU Students

1. Muhaimen Shamsi, College of Engineering, USF, Tampa, FL, Oct 2014 – December 2015.
2. Fallon Williams, College of Engineering, USF, Tampa, FL, Sept 2014 – December 2015.
3. James Waugh, College of Engineering, USF, Tampa, FL, Aug 2014 – December 2015.
4. Narges Ghaedi, College of Engineering, USF, Tampa, FL, Feb 2014 – December 2014.
5. Yu Peng, College of Engineering, USF, Tampa, FL, Jan 2014 – Feb 2014.
6. William Cruz, Information Technology, USF, Lakeland, FL, May 2012 – December 2013.
7. Antonio Enriquez, Information Technology, USF, Lakeland, FL, May 2012 – April 2013.
8. Paolo Aguilar, College of Engineering, USF, Tampa, FL, June – August 2008.
9. Eric Garcia, College of Engineering, USF, Tampa, FL, June - August 2007.
10. Jameson Beebe, College of Engineering, USF, Tampa, FL, June - August 2007.

RoboCup Competitions

1. 15th RoboCup World Cup, @Home, Radical Dudes, INSERM/USF, Istanbul, Turkey, July 5 - 11, 2011.
2. 14th RoboCup World Cup, Small-Size League, ITAM Eagle Knights / USF Robobulls Team, Singapore, June 19 - 25, 2010.
3. 14th RoboCup World Cup, @Home, Radical Dudes, INSERM/ITAM/USF, Singapore, June 19 - 25, 2010.
4. 13th RoboCup World Cup, Small-Size League, ITAM Eagle Knights / USF Robobulls Team, Graz, Austria, June 29 - July 5, 2009.
5. 13th RoboCup World Cup, Standard Platform League, ITAM Eagle Knights Team, Graz, Austria, June 29 - July 5, 2009.
6. 13th RoboCup World Cup, @Home, Radical Dudes, INSERM/ITAM/USF, Graz, Austria, June 29 - July 5, 2009.
7. 12th RoboCup World Cup, Small-Size League, ITAM Eagle Knights Team, Suzhou, China, July 14-20, 2008.
8. 12th RoboCup World Cup, Standard Platform League, ITAM Eagle Knights Team, Suzhou, China, July 14-20, 2008.
9. 11th RoboCup World Cup, Small-Size League, ITAM Eagle Knights / USF Robobulls Team, Georgia Tech, Atlanta, Georgia, USA, July 3-8, 2007.
10. 11th RoboCup World Cup, Four-Legged League, ITAM Eagle Knights Team, Georgia Tech, Atlanta, Georgia, USA, July 3-8, 2007.
11. 2nd RoboCup Latin American Open, Four-Size League, ITAM Eagle Knights Team, Santiago, Chile, Oct 24-25, 2006 (1st place).
12. 10th RoboCup World Cup, Small-Size League, ITAM Eagle Knights Team, Bremen, Germany, June 14-18, 2006.
13. 10th RoboCup World Cup, Four-Legged League, ITAM Eagle Knights Team, Bremen, Germany, June 14-18, 2006.
14. 10th RoboCup World Cup, @Home League, ISC-ITAM EK-Lyon Team, Bremen, Germany, June 14-18, 2006 (4th place).

15. 1st RoboCup Latin American Open, Small-Size League, ITAM Eagle Knights Team, Sao Luis Maranhao, Brasil, Sept 18-19, 2005 (1st place).
16. 1st RoboCup Latin American Open, Four-Size League, ITAM Eagle Knights Team, Sao Luis Maranhao, Brasil, Sept 18-19, 2005 (3rd place).
17. 9th RoboCup World Cup, Small-Size League, ITAM Eagle Knights Team, Intex, Osaka, Japan, July 13-19, 2005.
18. 9th RoboCup World Cup, Four-Legged League, ITAM Eagle Knights Team, Intex, Osaka, Japan, July 13-19, 2005.
19. 3rd Latin American Student Robotics Contest, RoboCup Small-Size League, ITAM Eagle Knights Team, ITESM-CEM, Mexico City, October 25-27, 2004 (1st place).
20. 3rd Latin American Student Robotics Contest, RoboCup Four-Legged League, ITAM Eagle Knights Team, ITESM-CEM, Mexico City, October 25-27, 2004.
21. 2nd RoboCup US Open, Small-Size League, ITAM Eagle Knights Team, UNO, New Orleans, LA, April 25-27, 2004 (2nd place).
22. 2nd RoboCup US Open, Four-Legged League, ITAM Eagle Knights Team, UNO, New Orleans, LA, April 25-27, 2004.
23. 1st RoboCup American Open, Small-Size League, ITAM Eagle Knights Team, CMU, Pittsburgh, PA, May 2-4, 2003 (3rd place).

Robotics Societies

- 2014-present Advisory Board, RoboCup Internal Advisory Council.
- 2009-present Advisory Board, Mexican Robotics Federation (FMR).
- 2003-present Executive Board, IEEE-RAS Latin American Robotics Council.
- 2009-2013 Chair, IEEE-RAS Chapter Award Committee.
- 2008-2014 Executive Committee, Robocup, Small-Size League.
- 2007-2010 Distinguished Lecturer, IEEE-RAS Distinguished Lecturer Program.
- 2007-2009 Chair, Robocup, Mexican National Committee.
- 2005-2009 Chair, IEEE-RAS Mexican Chapter (2007 Chapter of the Year Award)
- 2006-2009 Co-Chair, IEEE-RAS Standing Committee for Chapter and International Activities.
- 2005-2009 Executive Board, Mexican Robotics Association (AMROB).
- 2002-2009 Executive Board, Mexican Robotics Federation (FMR).

Event Organization

- 2013 General Chair, ICAR, International Conference on Advanced Robotics, Montevideo, Uruguay, November 25-29.
- 2012 Co-Chair, RoboCup World Championship, Mexico City, Mexico, June 18-24.
- 2009 Chair, 1st US - Latin American Workshop on Robotics Cooperation, Chile Meeting, Santiago, Chile, Nov 3.
- 2009 Chair, 1st US - Latin American Workshop on Robotics Cooperation, Uruguay Meeting, Montevideo, Uruguay, Nov 2.

- 2009 Chair, 6th IEEE-RAS Latin American Robotics Symposium, IEEE Latin American Robotics Council, UTFSM, Valparaiso, Chile, October 29-30.
- 2009 Organizing Committee, World RoboCup Small-Size League, Graz, Austria, July.
- 2008 Co-Chair, RoboCup Symposium, Suzhou, China, July.
- 2008 Organizing Committee, World RoboCup Small-Size League, Suzhou, China, July.
- 2007 Chair, Organizing Committee, World RoboCup Small-Size League, Atlanta, Georgia, USA, July 1-8.
- 2006 Co-Chair, 3rd IEEE-RAS Latin American Robotics Symposium, IEEE Latin American Robotics Council, University of Chile, Santiago, Chile, October 26-27.
- 2006 Co-Chair, 2nd Mexican Robotics Contest, University LaSalle, Mexico City, Mexico, August 23-25.
- 2006 Co-Chair, 1st Mexican Robotics Contest, ITESM, Cuernavaca, Mexico, August 24-26.
- 2004 Chair, 1st IEEE-RAS Latin American Robotics Symposium, IEEE Latin American Robotics Council, ITAM, Mexico City, October 28-29.
- 2004 Co-Chair, 3rd IEEE Latin American Student Robotic Contest, IEEE Latin American Robotics Council, ITESM-CEM, Mexico City, October 25-27.

Editorial Board

- 2010-present CLEI Electronic Journal, Latin American Center for Informatics Studies.
- 2009-present Komputer Sapiens, Mexican Society for Artificial Intelligence.
- 2006-present Journal of Intelligent and Robotic Systems, Springer.

Program Committee

- 2006-present RoboCup, International Symposium.
- 2005-present ICAR, International Conference on Advanced Robotics.
- 2004-present LARS, Latin American Robotics Symposium.

International Societies

- 2014-present SFN Member
- 1990-present ACM Member
- 1989-present IEEE Senior Member