

Journal Papers

- Anouck R. Girard, Adam S. Howell and J. Karl Hedrick, “[Hybrid Supervisory Control for Real-Time Embedded Bus Rapid Transit Applications](#)”, Accepted for Publication, IEEE Transactions on Vehicular Technology, 2005.
 - Anouck R. Girard, João Sousa and J. Karl Hedrick, “[A Selection of Recent Advances in Networked Vehicle Systems](#)”, Accepted for publication in IMECHE Journal of Systems and Control Engineering – Proceedings of the Institution of Mechanical Engineers, Part I, 2004
 - Anouck R. Girard, Stephen C. Spry and J. Karl Hedrick, “[Real-Time Embedded Hybrid Control Software for Intelligent Cruise Control Applications](#)”, IEEE Robotics and Automation Magazine, Special Issue on ITS – Vol. 12, No. 1, March 2005, pp. 22-28.
 - Anouck R. Girard and J. Karl Hedrick, “[Formation Control of Multiple Vehicles using Dynamic Surface Control and Hybrid Systems](#)”, International Journal of Control, 2003, Vol. 76, No. 9/10, pp. 913-923
 - Anouck R. Girard, Daniel M. Empey, Stephen C. Spry, J. Karl Hedrick and William C. Webster, “[An Experimental Testbed for Mobile Offshore Base Control Concepts](#)”, Journal of Marine Science and Technology, 2003, Vol. 7, pp. 109-118
 - Anouck R. Girard, João Sousa and J. Karl Hedrick, “[A Hierarchical Control Architecture for the Mobile Offshore Base](#)”, Marine Structures Journal, Vol. 13, No. 4-5, July 2000, pp.459-476
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Other Papers

Un-Refereed Journal Papers

- Anouck R. Girard, Daniel M. Empey, João Sousa, Stephen C. Spry, Gerald Stone, William C. Webster and J. Karl Hedrick, “PATH’s Experimental Testbed for Mobile Offshore Base Control Concepts”, Intellimotion, Vol. 10 No. 1, 2002.

Book Chapters

- Adam S. Howell, Anouck R. Girard, J. Karl Hedrick and Pravin P. Varaiya, “A Real-Time Software Architecture for Coordinated Vehicle Control”, To be published in Lecture Notes in Computer Science.
- Anouck R. Girard and J. Karl Hedrick, “Multiple Sliding Surfaces and Dynamic Sliding Control”, Sliding Mode Control, To be published.

Conference Papers

2005

- Stephen C. Spry, Anouck R. Girard and J. Karl Hedrick, "Convoy Protection using Multiple Unmanned Air Vehicles: Organization and Coordination", Accepted for Publication at the American Control Conference, 2005

2004

- Anouck R. Girard, Adam S. Howell and J. Karl Hedrick, "Border Patrol and Surveillance Missions using Multiple Unmanned Air Vehicles", Accepted for Publication, CDC 2004
- João Sousa, Anouck R. Girard and J. Karl Hedrick, "Elemental Maneuvers and Coordination Structures for Unmanned Air Vehicles", Accepted for Publication, CDC 2004.
- João Sousa, Anouck R. Girard and J. Karl Hedrick, "Safe Controller Design for Intelligent Cruise Control using Differential Games", Proceedings of the International Symposium of Mathematical Theory of Networks and Systems, MTNS 2004, Louvain, Belgium, July 5-9, 2004.
- Stephen C. Spry, Anouck R. Girard and J. Karl Hedrick, "Organization and Collaboration of Multi-AV Systems for Convoy Protection", Proceedings of the AINS and Swarming Conference, June 13-15, 2004, Washington, DC.
- Anouck R. Girard, Adam S. Howell and J. Karl Hedrick, "Model-Driven Hybrid and Embedded Software for Automotive Applications", Proceedings of the 2nd RTAS Workshop on Model-Driven Embedded Systems, MoDES 2004, May 22-24, 2004, Toronto, CA.
- João Sousa, Anouck R. Girard and Jorge E. Silva, "Elemental Maneuvers for Unmanned Air Vehicles", Proceedings of Robotica 2004, April 24-25, 2004, pp. 63-70, Portugal.
- Adam S. Howell, Anouck R. Girard, J. Karl Hedrick and Pravin P. Varaiya, "A Real-Time Software Architecture for Coordinated Vehicle Control", Proceedings of the Future Generation Software Architectures in the Automotive Domain Workshop, San Diego, CA, Jan. 10-11, 2004.

2003

- Anouck R. Girard, João Sousa, Daniel M. Empey, Stephen C. Spry, William C. Webster and J. Karl Hedrick, "An Overview of the Berkeley Mobile Offshore Base Dynamic Positioning Project", Proceedings of the Dynamic Positioning Conference, Houston, TX, September 16-17, 2003

2002

- James A. Misener, Anouck R. Girard and Michael C. Drew, "Experimental Implementation of Cooperative Adaptive Cruise Control", Proceedings of the ITS World Congress 2002.
- Anouck R. Girard, Daniel M. Empey and J. Karl Hedrick, "Lessons Learned from the Mobile Offshore Base Project", Proceedings of the Second IFAC Conference on Mechatronic Systems, Berkeley, CA, December 2002.

2001

- Anouck R. Girard, João Sousa, J. Karl Hedrick and William C. Webster, “Simulation Environment Design and Implementation: An Application to the Mobile Offshore Base”, Proceedings of the 20th International Conference on Offshore Mechanics and Arctic Engineering, June 3-8, Rio de Janeiro, Brazil.
- João Sousa, Anouck R. Girard, J. Karl Hedrick and William C. Webster, “A Ship Maneuvering Control Framework”, Proceedings of the 20th International Conference on Offshore Mechanics and Arctic Engineering, June 3-8, Rio de Janeiro, Brazil.
- Anouck R. Girard and J. Karl Hedrick, “Dynamic Positioning of Ships using Nonlinear Dynamic Surface Control”, Proceedings of the Fifth IFAC Symposium on Nonlinear Control Systems, Saint-Petersburg, Russia, July 4-6, 2001, pp. 225-230.
- Anouck R. Girard, João Sousa and J. Karl Hedrick, “Dynamic Positioning Concepts and Strategies for the Mobile Offshore Base”, Proceedings of the IEEE International Conference on Intelligent Transportation Systems, Oakland, CA, August 25-29, 2001.
- Anouck R. Girard, João Sousa and J. Karl Hedrick, “Coordinated Control of Agent Formations in Uncertain, Dynamic Environments” Proceedings of the European Control Conference ECC2001, Porto, Portugal, September 2001.
- Anouck R. Girard, João Sousa and J. Karl Hedrick, “An Overview of Emerging Results in Networked, Multi-Vehicle Systems”, Proceedings of the IEEE Conference on Decision and Control, 2001, Orlando, Florida, December, 2001.
- Anouck R. Girard, João Sousa, James A. Misener and J. Karl Hedrick, “A Control Architecture for Integrated Cooperative Cruise Control and Collision Warning Systems” Proceedings of the IEEE Conference on Decision and Control, 2001, Orlando, Florida, December, 2001.
- Anouck R. Girard, “Relative Dynamic Positioning of Ships and/or Offshore Platforms using Dynamic Surface Control” Co-Winner, ASME OOA Student Paper Competition, doctoral category, June, 2001.
- Anouck R. Girard, João Sousa, Daniel M. Empey, Stephen C. Spry, and J. Karl Hedrick, “An Experimental Testbed for Mobile Offshore Base Control Concepts”, Proceedings of the US Japan Natural Resources Symposium, Marine Facilities Panel, Honolulu, Hawaii, November, 2001.
- Sergio L. Fraga, João Sousa, Anouck R. Girard and Alfredo Martins, “An Automated Maneuver Control Framework for a Remotely Operated Vehicle”, Proceedings of the OCEANS 2001 Conference, Honolulu, Hawaii, November, 2001.

2000

- João Sousa, Anouck R. Girard and J. Karl Hedrick, “Real-Time Hybrid Control of Mobile Offshore Base Scaled Models”, Proceedings of the American Control Conference, June 2000, Chicago, IL, USA, Special Session on Real-Time Applications of Hybrid Systems, Best Presentation Award!
- Anouck R. Girard, João Sousa and J. Karl Hedrick, “A Coordinated Control Methodology for the Mobile Offshore Base”, Proceedings of the International Symposium on Mathematical Theory of Networks and Systems, June 2000, Perpignan, France

1999

- Anouck R. Girard, James A. Misener, João Sousa and J. Karl Hedrick, “Control and Evaluation of Mobile Offshore Base Operations”, Proceedings of the SPIE, Vol. 3693, Conference on Unmanned Ground Vehicle Technology, USA, April 1999
- Brian Kaku, Anouck R. Girard and J. Karl Hedrick, “A Coordinated DP Control Methodology for the Mobile Offshore Base”, Proceedings of the ISOPE, Brest France, June 1999, pp. 70-75
- Anouck R. Girard, João Sousa and J. Karl Hedrick, “A Hierarchical Control Architecture for the Mobile Offshore Base”, Proceedings of the Third International Workshop on Very large Floating Structures, Hawaii, USA, September 1999, pp. 447-456

- João Sousa , Anouck R. Girard and Natalia Kourjanskaia, “The MOB-SHIFT Simulation Framework”, Proceedings of the Third International Workshop on Very large Floating Structures, Hawaii, USA, September 1999, pp. 474-482

Posters

- Karl Hedrick, D. Lamberson, Anouck Girard, J. Carlos Zavala, Pannag Sanketi, “Model-Based Real-Time Embedded Control Software for Automotive Applications”, Poster, CHES Review, May 10, 2004, Berkeley, CA.

Ph.D. Dissertation and Master’s Thesis

- Anouck Girard, “Hybrid System Architectures for Coordinated Vehicle Control”, Ph.D. Dissertation, Interdisciplinary Science and Engineering, University of California, Berkeley, May 2002.
- Anouck Girard, “A Convenient State Machine Formalism for High-Level Control of Autonomous Underwater Vehicles”, Master of Science in Ocean Engineering Thesis, Florida Atlantic University, May 1998.