ÜMIT ÖZGÜNER

Publications

Chapters in Books

1. U. Ozguner and W.R. Perkins, "Structural Properties of Large Scale Composite Systems," in Recent Advances in Large Scale Systems, R. Saeks, Ed., Point Lobos Press, 1976, pp. 5-32.

2. M. Jamshidi and U. Ozguner, ``An Optimal Adaptive Policy for Long-Term Economic Stabilization Problem,'' Models and Decision Making in National Economics, Jenesse, Pau & Strassak, eds. North Holland, 1979, 45-52.

3. E. J. Davison and U. Ozguner, ``Decentralized Control Using Local Models for Large Scale Systems,'' Control and Dynamic Systems: Advances in Theory and Applications, vol. 22, C.T. Leondes, ed., Academic Press, 195-232 (1985).

4. U. Ozguner and A. Iftar, ``Controller Reduction and Analysis of Suboptimality and Stability of Decentralized Systems,'' Model Error Compensation, R.E. Skelton, ed., Academic Press 1986.

5. U. Ozguner, ``Optimal Routing: Applications to Transportation Systems,'' Concise Encyclopedia of Traffic and Transportation Systems, Ed: M. Papageorgiou, Pergamon Press. May 1991.

6. A. Iftar and U. Ozguner, ``Techniques in Modeling Uncertain Dynamics for Robust Control System Design,'' in Control and Dynamics, Advances in Theory and Applications: Robust Control System and Applications, Vol. 50, 1992, pp255--296.

7. L. Acar and U. Ozguner, ``Design of Structure--Based Hierarchies for Distributed Intelligent Control,'' in An Introduction to Intelligent and Autonomous Control, P. Antsaklis and K. Passino Eds., 79--108, Kluwer, 1993.

8. D. Young, U. Ozguner and J--X. Xu, ``Variable Structure Control of Flexible Manipulators'', in Variable Structure Control for Robotics and Aerospace Applications, 247--278, Elsevier, 1993, Ed: D. Young.

9. D. Young, J--X. Xu and U. Ozguner, ``Variable Structure Control of Redundant Mechanisms'', in Variable Structure Control for Robotics and Aerospace Applications, 173--190, Elsevier, 1993, Ed: D. Young.

10. U. Ozguner and H. Chan, "Variable Structure Adaptive Control for Manipulators", in Variable Structure Control for Robotics and Aerospace Applications, 89--108, Elsevier, 1993, Ed: D. Young.

11. S. Drakunov and U. Ozguner, ``Generalized Sliding Modes for Manifold Control of Distributed Parameter Systems,'' in Variable Structure and Lyapunov Control, A.S. Zinober ed., Ch.11, 219--241, Springer Verlag 1993.

12. M. Dogruel and U. Ozguner, ``Modeling and Stability Issues in Hybrid Systems,'' in Hybrid Systems II, A. Nerode and P. Antsaklis, Ed., Elsevier, November 1995, 148—165.

13. W-C. Su, S. Drakunov and U. Ozguner, ``Implementation of Variable Structure Control for Sampled-Data Systems,'' in Variable Structure Systems and Lyapunov Control Theory, Elsevier, August 1996,

14. U. Ozguner, C. Hatipoglu, A. Iftar and K. Redmill, ``Hybrid Control Design for a Three Vehicle Scenario Demonstration using Overlapping Decomposiions,'' in Hybrid Systems IV, 1997 Springer Verlag, 294-378,

15. C. Hatipoglu, Ü. Özgüner, "Handling Stiction with Variable Structure Control," in *Variable Structure Systems, Sliding Mode and Nonlinear Control*, K.D. Young and U. Ozguner Eds. pp. 143-166, Springer Verlag, 1999.

16. I. Haskara, Ü. Özgüner, "Equivalent Value Filters in Disturbance Estimation and State Observation," in *Variable Structure Systems, Sliding Mode and Nonlinear Control,* K.D. Young and U. Ozguner Eds. pp. 167-180, Springer Verlag, 1999.

17. D. Schoenwald, Ü. Özgüner, "Decentralized Control of Uncertain Systems via Sensitivity Models," in *Topics in Control and its Applications,* D. E. Miller and Li Qiu Eds., pp. 171-188, Springer Verlag, 1999.

18. Umit Ozguner, "Intelligent Transportation Systems: Roadway Applications", in *Perspectives in Control Engineering: Technologies, Applications and New Directions,* Tariq Samad, Ed., IEEE Inc. New York. 2001,

19. Ibrahim Haskara, Cem Hatipoglu and Umit Ozguner, "Sliding Mode Compensation, Estimation and Optimization Methods in Automotive Control," in *Variable Structure Systems: Towards the 21st Century,* X. Yu and J-X. Xu. Eds., Control and Information Sciences, Vol. 274. Springer-Verlag. 2001,

20. Jeffery R. Layne, Martin J. Elders, Umit Ozguner, and Zaher M. Kassas, "A Hospitability Map Approach for Estimating a Mobile Target Location," in *Recent Developments in Cooperative Control and Optimization*, Editors: Sergiy Butenko, Robert Murphey, and Panos Pardalos. Kluwer Academic, 2003, pp. 117-124.

21. Y. Zhu, Y. Zheng, Ü. Özgüner, "Waypoint selection in constrained domains (for cooperative systems)," *Advances in Cooperative Control and Optimization*, M. J. Hirsch, P. M. Pardalos, R. Murphey, and D. Grundel (eds.), *Lecture Notes in Control and Information Sciences*, Springer, 369: 191—202, 2007.

Journal Publications

1. U. Ozguner, ``Signal Flowgraph Analysis Using Only Loops,'' *Electronics Letters*, 9th August, 1973, Vol. 9, No. 16, pp. 359-360.

2. U. Ozguner and W.R. Perkins, ``On the Multi-Level Structure of Large Scale Composite Systems,'' *IEEE Trans. Circ. and Syst.,* CAS-22, No.7, July 1975, 618--621.

3. U. Ozguner and W.R. Perkins, ``A Series Solution to the Nash Strategy for Large Scale Interconnected Systems,'' *Automatica,* Vol. 13, 1977, pp. 313-315.

4. U. Ozguner and W.R. Perkins, ``Optimal Control of Multi-Level Composite Systems,'' *Int. J. Control*, 1978, Vol. 28, No. 6, pp. 967-980.

5. P.E. Sarachik and U. Ozguner, ``An APL Algorithm for Finding the Generalized Inverse of a Matrix,'' *APL Quote Quad.,* Vol. 9, No. 3, March 1979, pp. 39-43.

6. U. Ozguner and W.R. Perkins, ``A Nash Feedback Approch to Control of River Pollution,'' *IEEE Trans. on System, Man, and Cybernetics,* May 1979, pp. 290-292.

7. U. Ozguner, ``Near Optimal Control of Composite Systems: The Multi-Time-Scale Approach,'' *IEEE Trans. on Automatic Control,* August 1979, pp. 652-655.

8. U. Ozguner and P.E. Sarachik, ``Stabilizing Feedback Gains for Multi-Channel and Decentralized Linear Systems,'' *IEEE Trans. on Automatic Control*, Feb. 1980, pp. 104-105.

9. E.J. Davison and U. Ozguner, ``The Expanding System Problem,'' *Systems and Control Letters*, Vol. 1, No. 4, Jan. 1982, pp. 255-260.

10. U. Ozguner, ``Near-Nash Feedback Control of a Composite System with a Time-Scale Hierarchy,*'' IEEE Trans. Syst., Man & Cybernetics,* Jan. 1982, pp. 62-66.

11. P.E. Sarachik and U. Ozguner, ``On Decentralized Routing in Traffic Networks,'' *IEEE Trans. A.C., Dec.*, 1982, pp. 1233-1237.

12. E.J. Davison and U. Ozguner, ``Synthesis of the Decentralized Robust Servomechanism Problem Using Local Models,'' *IEEE Trans. AC*, June 1982, pp. 583-600.

13. E.J. Davison and U. Ozguner ``Characterizations of Decentralized Fixed Modes for Interconnected Systems,'' *Automatica,* March 1983, pp. 169-182.

14. E.J. Davison and U. Ozguner, ``Decentralized Control of Traffic Light Networks,'' Joint Special Issue on Large Scale Systems, *IEEE Transactions of Automatic Control; Circuits and Systems; System, Man & Cybernetics*, (SMC-13, No.4, July/August 1983).

15. C. Wongchaisuwat, J.D. Donne, U. Ozguner and H. Hemami, ``Control of a Planar Arm by Nonlinear Feedback Gains,'' *J. of Robotic Systems*, 1, 157-167 (1984).

16. R.G. Morgan and U. Ozguner, ``A Decentralized Variable Structure Control Algorithm for Robotic Manipulators,*'' IEEE Journal of Robotics and Automation,* 1, 1, 57--65 (1985).

17. U. Ozguner and H. Hemami, ``Decentralized Control of Interconnected Physical Systems,'' *International J. of Control*, 41, 1445-1459 (1985).

18. ``Decentralized Variable Structure Control of a Two--Arm Robotic System,'' *J. of Robotic Systems*, 4(3), 377--395 (U. Ozguner, S. Yurkovich and F. Al--Abbass, (1987).

19. ``Local LQG/LTR Controller Design for Decentralized Systems,'' *IEEE Trans. Aut. Contr*. (A. Iftar and U. Ozguner). AC-32, No. 10, 926-930, Oct. 1987.

20. ``Acceleration Feedback Control for a Flexible Robot Arm,*'' Journal of Robotic Systems*, (P.T.Kotnik, S. Yurkovich and U. Ozguner), V. 5.3, 181--196, June 1988.

21. ``Laboratory Facility for Flexible Structure Control Experiments,*'' IEEE Control Systems*, (U. Ozguner, S. Yurkovich, J. Martin and P. Kotnik), Vol. 8, No. 4, 27--32, Aug. 1988.

22. ``Model Reference, Sliding Mode Adaptive Control for Flexible Structures,'' *Journal of Astronautical Sciences* (S. Yurkovich, U. Ozguner and F. Al-Abbass), Vol. 36, 285--310, Aug. 1988.

23. ``Unconstrained and Constrained Mode Expansions for a Flexible Slewing Link,*'' Trans. ASME J. of Dynamic Syst., Meas. and Control,* (E. Barbieri and U. Ozguner), Vol. 110, 416--421, Dec. 1988.

24. ``Three Course Control Laboratory Sequence,'' *IEEE Control Systems*, (U. Ozguner), Vol. 9, No. 3, 14--18, April 1989.

25. ``Vibration Compensation in Optical Tracking Systems,'' *J. of Guidance and Control* (E. Barbieri, U. Ozguner and S. Yurkovich), Vol. 12, No. 4, 585--592, July--Aug. 1989.

26. ``A Locally Computed Suboptimal Control Strategy for a Class of Interconnected Systems,'' *JOTA*, Vol.62, No.2, 189--210, (L. Acar and U. Ozguner), August 1989.

27. ``An Optimal Control Approach to the Decentralized Robust Servomechanism Problem,*'' IEEE Trans. Aut. Contr*., (A. Iftar and U. Ozguner), Vol. 34, No. 12, 1268--1271, Dec. 1989.

28. ``Contractible Controller Design and Optimal Control with State and Input Inclusion*'', Automatica*, Vol.26, No.3, 1990, 593--597, (A.Iftar and U. Ozguner).

29. ``Introduction to Special Issue on Large Scale and Decentralized Systems'', *IEEE Transactions on Automatic Control,* Vol.35, No.6, June 1990, 642--643, (U. Ozguner).

30. ``Design of Knowledge Rich Hierarchical Controllers for Large Functional Systems,*'' IEEE Trans. System, Man & Cybernetics,* Vol.20, No.4, July/August 1990, 791--803. (L. Acar and U. Ozguner).

31. ``Modeling of Uncertain Dynamics for Robust Controller Design in State Space,'' *Automatica,* January 1991, pp141--146, (A. Iftar and U. Ozguner).

32. ``Synthesis of Feedback Linearization and Variable Structure Control with Neural Net Compensation,'' *Asia--Pacific Engineering Journal (Part A),* Vol.2, No.1, pp17--29, 1992, (J--X. Xu, J. Donne and U. Ozguner).

33. ``A New Minimum Time Control Law for a One-Mode Model of a Flexible Slewing Structure,*'' IEEE Trans. AC, January* 1993, 142--146 (E. Barbieri and U. Ozguner).

34. ``Flexible Structure Experiments at JPL and WPAFB,'' *International Journal of Control*, 1--19, Vol.58, No.1, 1993, (A. Buddie, T. Georgiou, U. Ozguner and M. Smith).

35. ``Frequency Shaping Compensator Design for Sliding Mode'', *International Journal of Control* Vol.57, No.5, 1005--1019, 1993, (D. Young and U. Ozguner).

36. ``Stability of Linear Feedback Systems with Random Communication Delays,'' *International Journal of Control* V59, No.4, 925-953, 1994, (R. Krtolica, U. Ozguner, H. Chan, H. Goktas, J. Winkelman and M. Liubakka).

37. ``Neural Control of Flexible Systems with Partially Known Dynamics,'' *Modelling and Scientific Computing, Special Issue on: Neural Networks for Identification and Control of Dynamical Systems*, Vol.1, No.3-4,263-280, 1994, (J. Donne, J--X. Xu and U. Ozguner).

38. ``H-infinity sensitivity minimization using decentralized feedback: 2--input 2--output systems,'' *Systems and Control Letters, 22, 99-109, 1994, (K. Unyelioglu and U. Ozguner).*

39. ``Robust Stabilization of Nonlinear Systems with Parametric Uncertainty,'' *IEEE Transactions* AC, V39,No.8, August 1994, (D. Schoenwald and U. Ozguner).

40. ``Intelligent Hierarchical Thrust Vector Control of A Spacecraft,'' *IEEE Control Systems*, 13-23, 1994, (K. Redmill and U. Ozguner).

41. ``ABS Control Using Optimum Search via Sliding Modes,'' *IEEE Trans. on Control Systems Technology*, Vol.3, No.1, March 1995, 79-85. (S. Drakunov, U. Ozguner, P. Dix and B. Ashrafi).

42. ``Closed-loop control of systems over a communication network with queues,'' *Int. J. Control*, 1995, vol.62, No.3, 493-510, (H. Chan and U. Ozguner).

43. ``Decentralized Blocking Zeros and Decentralized Strong Stabilization Problem,'' *IEEE Trans. on AC* November 1995, 1905-1918, (K. Unyelioglu, B. Ozguler and U. Ozguner).

44. ``Control of Flexible Manipulators via Singular Perturbations and Distributed Vibration Damping,'' Jan. 1996, *Dynamics and Control*, 6, 5-32, (D. Schoenwald and U. Ozguner)

45. ``Constructing Discontinuity Surfaces for Variable Structure Systems, A Lyapunov Approach,'' *Automatica* Vol. 32, No. 6, 925--928, 1996, (W-C. Su, S. Drakunov and U. Ozguner).

46. ``Sliding Mode Control in Discrete State and Hybrid Systems,'' *IEEE AC Trans*. Vol. 41, No.3, March 1996, 414--419, (M. Dogruel, U. Ozguner and S. Drakunov).

47. ``Co-States for Sliding Mode Design in Linear Systems,'' *Syst. & Control Letters* 27, 1996, 233--242, (D. Young and U. Ozguner).

48. ``A Game Theoretic Approach to Optimal Control of Uncertain Systems,'' *Automatica*, Vol.32, No.12, Dec. 1996, 1749-52 (A. Iftar, U. Ozguner).

49. ``Design and Stability Analysis of a Lane Following Controller,'' *IEEE Trans. Control Syst. Techn*., Vol.5, No.1, Jan. 1997, 127-134. (K. Unyelioglu, C. Hatipoglu and U. Ozguner).

50. ``Nonlinear Control of a Rodless Pneumatic Servoactuator,'' Vol 33, No.7, 1401-08, *Automatica* 1997, (S. Drakunov, U. Ozguner, W-C. Su, G. Hanchin).

51. ``Wheel Torque Proportioning, Rear Steering and Normal Force Control: A Structural Investigation,'' *IEEE AC Transactions,* Vol.42, No.6, 803-818, June 1997. (K. Unyelioglu, U. Ozguner, T. Hissong and J. Winkelman).

52. ``Sliding Mode Design for Robust Linear Optimal Control,'' *Automatica*, 1997, Vol.33, No.7, 1312-1323 (D. Young and U. Ozguner).

53. ``Integration of VLSI Circuits and Mechanics for Vibration Control of Flexible Structures,'' Vol.2, No.1, *IEEE/ASME Trans of Mechatronics*, March 1997, 30-40 (L. Lenning, A. Shah, U. Ozguner and S. Bibyk).

54. "Stability of a Set of Matrices with Applications to Automatic Control," *Elektrik*, Vol. 5, No.2, pp. 247-262, 1997. (M. Dogruel and U. Ozguner)

55. "Discrete and Hybrid State System Modeling and Analysis," *Elektrik*, Vol.5, No.2, pp. 263-286, 1997. (M. Dogruel and U. Ozguner)

56. Overlapping Decompositions, Expansions, Contractions, and Stability of Hybrid Systems", *IEEE Transactions on Automatic Control*, vol. 43, no. 8, pp. 1040-1045, August 1998. (A. Iftar and U. Ozguner)

57. On Sliding Mode Observers via Equivalent Control Approach", *International Journal of Control*, vol. 71, no. 6, pp. 1051-1067, 1998. (I. Haskara, U. Ozguner, and V. Utkin)

58. "Switching Control of a Pneumatic Throttle Actuator", *IEEE Control Systems*, pp. 81-87, August 1998. (M. Sommerville, C. Hatipoglu, and U. Ozguner)

59. "The Ohio State University automated highway system demonstration vehicle," (*SAE Transactions 1997): Journal of Passenger Cars*, sp-1332, Society of Automotive Engrs., 1999. (K. Redmill and Ü. Özgüner).

60. "A Control Engineer's Guide to Sliding Mode Control," *IEEE Trans. Control Systems Technology*, Vol.7, No.3, pp. 328-342, May 1999. (K. D. Young, V. Utkin and Ü. Özgüner)

61. ``H-infinity Optimal Decentralized Feedback: Time-Varying Versus Time-Invariant Compensation,'' to appear AC Transactions, (K. Unyelioglu, U. Ozguner).

62. "Fixed Zeros of Decentralized Control Systems," *IEEE Transactions on Automotive Control*, Volume 45, No. 1, pp.146-151. January 2000. (Konur A. Ünyelioglu, Ümit Özgüner, and A.Bülent Özgüler,)

63. "An O(T squared) Boundary Layer in Sliding Mode for Sampled Data-Systems," *IEEE Transactions on Automatic Control*, Vol. 45, No. 3, pp. 482-485. March 2000. (Wu Chang Su, Sergey V. Drakunov, and Ümit Özgüner)

64. "Wheel slip control for antispin acceleration via dynamic spark advance," IFAC Journal on Control Engineering Practice, Vol. 8, pp. 1135-1148, Oct. 2000. (Ibrahim Haskara, Ümit Özgüner, and Jim Winkelman)

65. "Extremum Control for Optimal Operating Point Determination and Set Point Optimization Via Sliding Modes," *Journal of Dynamic Systems, Measurement, and Control*. Vol. 122, pp. 719-724. December 2000. (Ibrahim Haskara, Ümit Özgüner, and Jim Winkelman)

66. "Decentralized Techniques for the Analysis and Control of Takagi-Sugeno Fuzzy Systems," *IEEE Transactions on Fuzzy Systems*, Vol. 8, No. 6, pp.691-704, December 2000. (Mehmet Akar and Ümit Özgüner)

67. "A Sampled-data Formulation for Boundary Control of a Longitudinal Elastic Bar," *ASME Journal of Vibration and Acoustics,* V. 123, No. 2, (April 2001), pp.245-9, (Wu-Chung Su, Sergey Drakunov and Umit Ozguner)

68. "Optimal Decentralized Regulation of a Class of Flow Networks," *JOTA*, Vol. 115, No.3, pp. 659-684, December 2002. (Jia Lei and Ümit Özgüner)

69. ``Decentralized sliding mode control using overlapping decompositions", *Automatica*, vol. 38, pp. 1713-1718, October 2002. (M. Akar and Ü. Özgüner)

70. T. Acarman, Y. Pan and U. Ozguner, "A Control Authority Transition System for Collision and Accident Avoidance," *Vehicle Dynamic Systems*, Special Issue: IVHS: State-of-the-Art, Vol. 39, No. 2, Feb. 2003, pp. 149-187.

71. Cem Hatipoglu, U. Ozguner, K.A. Redmill, "Automated lane change controller design," Intelligent Transportation Systems, IEEE Transactions on Volume 4, Issue 1, March 2003 Page(s):13 - 22

72. Y. Pan, U. Ozguner and T. Acarman, "Stability an d performance improvement of extremum seeking control with sliding mode," *International Journal of Control*, Special Issue dedicated to Vadim Utkin, Vol. 76, No.9/10, June/July 2003, pp. 968-985.

73. Q. Chen, U. Ozguner; K. Redmill, "Ohio State University at the 2004 DARPA Grand Challenge: Developing a Completely Autonomous Vehicle", Intelligent Systems, IEEE, Volume: 19 , Issue: 5 , Sept.-Oct. 2004, Pages:8 – 1.

74. Qi Chen, Umit Ozguner, "A Hybrid System Model and Overlapping Decomposition for Vehicle Flight Formation Control," *DCDIS Journal* Special Issue (in honor of Professor D. Siljak's 70th Birthday), Dynamics of Continuous, Discrete and Impulsive Systems, Series B: Applications and Algorithms, Volume 11, Number 4-5 (2004), Pages: 475—488.

75. Z. Tang and U. Ozguner, "Motion planning for multi-target surveillance with mobile sensor agents", IEEE Trans. Robotics, vol. 21, no. 5, pp.898-908, Oct. 2005.

76. Y. Liu and U. Ozguner, "Quantitative evaluation of inter-vehicle communication effect in highway transportation from micro and macro views," International Journal of Vehicle Information & Communication Systems, vol.1, January 2005, pp.152-180.

77. L. Xu and U. Ozguner, "Static Reference Input Distribution with Principle of Optimality in Decentralized Servomechanism Problem", International Journal of Control, Vol. 78, No. 6, pp. 396-407, April 2005.

78. Y. Liu, U. Ozguner and T. Acarman, "Performance Evaluation of Inter-vehicle Communication in Highway Systems and in Urban Areas", IEE Proceedings Intelligent Transport Systems, Vol 153, No. 1, March, 2006, pp.63-75

79. Tankut Acarman and Umit Ozguner, "Rollover Prevention for Heavy Trucks Using Frequency Shaped Sliding Mode Control", Vehicle System Dynamics Journal, Vol.44 (10), pp.737-762, 2006.

80. Q. Chen and U. Ozguner, "Intelligent Off-road Navigation Algorithms and Strategies of Team Desert Buckeyes in the DARPA Grand Challenge '05," in Journal of Field Robotics, Volume 23, Issue 9, pp. 729-743, Sept. 2006.

81. L. Xu and U. Ozguner, "Dynamic Assignment with Min-Max Principle in Decentralized Servomechanism," Int. J. Control, Vol. 80, No. 1, Jan. 2007, 129-139.

82. Yongling Zheng and Ümit Özgüner, "A Composite Model for Vehicle Formation and Path Selection on a Cellular Structured Map", *Journal of Dynamic Systems, Measurement, and Control, Volume* 129, Issue 5, pp. 644-653, September 2007

83. Z.Tang, U. Ozguner, "Cooperative Sensor Deployment for Multi-Target Monitoring", *International Journal of Robust and Non-linear Control*,   Volume 18, Issue 2 , 2007, pages 196 – 217**.**

84. H. Yu and Ü. Özgüner, "Advanced headway control via adaptive seeking sliding mode for autonomous off-road vehicles", *Int. J. Vehicle Autonomous Systems*, Vol. 5, Nos. 1/2, p.119–137, 2007.

85. U. Ozguner, Stiller, C. Redmill, K. "Systems for Safety and Autonomous Behavior in Cars: The DARPA Grand Challenge Experience", *Proceedings of the IEEE*, Feb. 2007, Volume: 95, Issue: 2, pp. 397-412.

86. Y. Pan, U. Ozguner and O. Dagci, "Variable-Structure Control of Electronic Throttle Valve," IEEE Transactions on Industrial Electronics, Volume 55, Issue 11, Nov. 2008 Page(s):3899 – 3907.

87. U. Ozguner and K. Redmill, "Sensing, Control, and System Integration for Autonomous Vehicles: A Series of Challenges," SICE Journal of Control, Measurement, and System Integration, Vol. 1, No. 2, pp. 129–136, March 2008.

88. S. Jwa, Ü. Özgüner, and Z. Tang, "Information-Theoretic Data registration for UAV-based Sensing," IEEE Trans. on Intelligent Transportation Systems, Vol. 9, No. 1, March 2008, pp. 5-15.

89. R. Xu and U. Ozguner, "Sliding Mode Control of Underactuated Systems," Automatica, Volume 44, Issue 1, January 2008, Pages 233-241.

90. L. Fu* and U. Ozguner, "Extremum-Seeking Control in Constrained Source Tracing With Nonholonomic Vehicles," *IEEE Trans Industrial Electronics*, Sept. 2009. Volume: 56, Issue: 9, pp. 3602-3608.

91. K. A. Redmill*, U. Ozguner, S. Biddlestone*, A. Hsieh* and J. Martin*, "Ohio State University Experiences at the DARPA Challenges", *SAE International Journal of Commercial Vehicles,* April 2009 1:527-533.

92. Z. M. Kassas, U. Ozguner, "A Nonlinear Filter Coupled With Hospitability and Synthetic Inclination Maps for In-Surveillance and Out-of-Surveillance Tracking" IEEE Trans. , Jan. 2010, Volume: 40 Issue:1, 87 – 97.

93. Fu, L. and Ozguner, U. "Extremum seeking with sliding mode gradient estimation and asymptotic regulation for a class of nonlinear systems", Automatica 47(12): 2595-2603 (2011).

94. Guvenc, L., Ozguner, U., Redmill, K., Kurt, A., et al. "Cooperative Adaptive Cruise Control Implementation of Team Mekar at the Grand Cooperative Driving Challenge," *Intelligent Transportation Systems*, IEEE Transactions on, 13(3), 1062-1074. 2012.

95. Biddlestone, S., Redmill, K., Miucic, R., Ozguner, U., "An Integrated 802.11p WAVE DSRC and Vehicle Traffic Simulator With Experimentally Validated Urban (LOS and NLOS) Propagation Models," *Intelligent Transportation Systems, IEEE Transactions on* , vol.13, no.4, pp.1792-1802, Dec. 2012.

96. Hashimoto, N., Ozguner, U., Yokozuka, M., Kato, S., Matsumoto, O., & Tsugawa, S. "Experimental Study under Real-World Conditions to Develop Fault Detection for Automated Vehicles," *Journal of Mechanical Engineering and Automation*, 2(5), 2012, 91-99.

Conference Publications

1. ``Some Computer-Oriented Algorithms for Directed Graphs,'' Proc. 16th Midwest Symp. on Circuit Theory, Vol. 1, X5.1--X5.10, April 1973, Waterloo.

2. ``Controllabillity, Pole Placement, and Stabilizability in Large Scale Composite Systems,'' (U. Ozguner and W.R. Perkins), Proc. 12th Allerton Conf. on Circ. and Syst. Theory, October 1974.

3. ``Graph Theory in the Analysis of Large Scale Composite Systems,'' (U. Ozguner and W.R. Perkins), Proc. Int. Symp. of Circ. and Syst., April 1975, Boston, pp. 121-123.

4. ``Local Optimization in Large Scale Composite Dynamic Systems,'' Proceedings of 9th Asilomar Conf. on Circuits, Systems, and Computers, Pacific Grove, California, Nov. 1975. Also IBM Research Report RC-5691.

5. ``A Note on Obtaining Stabilizing Feedback Gains for Linear Systems,'' (U. Ozguner and P.E. Sarachik) IBM Research Report RC-5749, Dec. 1975.

6. ``On the Weak Interconnection of Composite Dynamic Systems,'' Proceedings of 1976 IEEE Conf. on Decision and Control, Austin, Texas, Dec. 1975.

7. ``A Multi-Time-Scale Problem in Large Scale Interconnected Systems Load-Frequency Control,'' Proc. Southeastern Symposium on System Theory, April 1976, Knoxville, Tennessee.

8. ``Dynamic Feedback and Disturbance Rejection in Large Scale Composite Systems,'' (U. Ozguner and W.R. Perkins), Proc. IFAC Conf. on Large Scale Systems, Udine, Italy, June 1976.

9. ``Multi-Time-Scale Analysis and Control in Macroeconomics,'' (U. Ozguner and M. Jamshidi), IFAC Conf. on Dynamic Modelling and Control of National Economies, Vienna, Jan. 1977.

10. ``Decentralized Observers for a Large Scale Composite System with Two Time-Scales,'' Proc. Joint Automatic Control Conf., San. Francisco, June 1977.

11. ``Analysis and Control of Interconnected Systems which have a Multi-Time-Scale Property,'' Proc. of IFAC Workshop on Control and Management of Integrated Industrial Complexes, Toulouse, Sept. 1977, pp. 89-93.

12. ``A Microprocessor Controlled Automated Warehouse Model,'' (F. Ozguner, U. Ozguner, and O. Soysal), Proc. First International Symposium on Mini- and Microcomputers in Control, San Diego, Jan. 1979.

13. ``Regulating Discrete Precedence Networks,'' Proc. IEEE Conf. on Decision and Control, San Diego, Jan. 1979.

14. ``Decentralized Synthesis of the Decentralized Robust Servomechanism Problem,'' (E.J. Davison and U. Ozguner), Proc. JACC, August 1980, San Francisco.

15. ``The Minimal Decentralized Realization of a Linear Time-Invariant System,'' (E.J. Davison and U. Ozguner), Proc. Int. Conf. on Circ. & Syst., Oct. 1980, New York, pp. 178-181.

16. ``Decentralized Routing in Congested Multi-Destination Traffic Networks,'' (U. Ozguner and P.E. Sarachik), Proc. Int. Conf. on Circ. & Syst., Oct. 1980, New York, pp. 1006-1009.

17. ``Decentralized Regulation of Cellular Structures,'' (U. Ozguner and B. Yildirim), Proc. 19th Allerton Conf. on Comm., Cont. and Computing, Oct 1981, Monticello Ill., pp. 836-841.

18. ``On the Stability and Eigenvalue Location of a Class of Composite Systems,'' (U. Ozguner and E.J. Davison), Proc. 20th IEEE Conf. on Decision and Control, Dec. 1981, San Diego, CA.

19. ``Decentralization Retunability under Structural Perturbations,'' (U. Ozguner and E.J. Davison), Proc. 1982 ACC, Arlington, VA, June 1982, pp. 910-911.

20. ``Decentralized Control of Traffic Light Networks,'' (E.J. Davison and U. Ozguner), Proc. Large Scale Systems Symposium, Oct. 1982, Virginia Beach, VA.

21. ``The Decentralized Servocompensator for Two Time-Scale Systems,'' Proc. 21st. IEEE Conf. on Decision and Control, Dec. 1982, Orlando, FL

22. ``Minimal Realization of a Class of Decentralized Systems,'' Proc. 1983 Automatic Control Conference, San Francisco, Ca. (June 1983) (U. Ozguner, L-C. Lee and E.J. Davison).

23. ``A Decentralized Variable Structure Control Algorithm for Robotic Manipulators,'' Proc. 21st Allerton Conference on Communication, Control, and Computing, Monticello, IL (Oct 1983) (R. G. Morgan and U. Ozguner).

24. ``The Coefficient Word-length Problem in Decentralized/Hierarchical Multiprocessor Control Systems,'' Proc. 21st Allerton Conference on Communication, Control, and Computing, Monticello, IL (Oct 1983) (U. Ozguner and M. Burns).

25. ``An Approach to Order Reduction in Decentralized Systems,'' Proc. 22nd IEEE Conf. on Decision and Control, (Dec. 1983) (U. Ozguner and L-C. Lee) 23-27.

26. ``The Route Guidance Problem: Decentralization, Optimality and Computational Complexity,'' Proc.IFAC 9th World Congress, Budapest, Hungary (Aug 1984) (U. Ozguner).

27. ``Variable Structure System Control of Flexible Spacecraft, AIAA/AAS Astrodynamics Conference, Seattle, WA. (Aug. 1984) (H. Oz and U Ozguner).

28. ``Simultaneous Routing and Signalization in Traffic Networks,'' Proc. 22nd Allerton Conference on Communication, Control, and Computing, Monticello, IL (Oct 1984) (F. Khorrami and U. Ozguner).

29. ``Centralized and Decentralized Computation of Routing Strategies in Congested Traffic Networks,'' Proc. 23rd IEEE Conference on Decision and Control, Las Vegas, Nevada (Dec. 1984) (H.Y. Ng and U. Ozguner).

30. ``Closed-Loop Balanced Realizations in the Analysis of Suboptimality and Stability of Decentralized Systems,'' Proc. 23rd IEEE Conference on Decision and Control, Las Vages, Nevada (Dec. 1984) (A. Iftar and U. Ozguner).

31. ``Controller Reduction and Analysis of Suboptimality and Stability of Decentralized Systems,'' IFAC Workshop on Model Error Compensation, Boston, Mass., (June 1985) (U. Ozguner and A. Iftar).

32. ``Sampling and Decentralized Fixed Modes,'' Proceedings of the 1985 American Control Conference, Boston, Mass. (June 1985) (U. Ozguner and E. J. Davison).

33. ``Decentralized Control of a Class of Distributed Systems,'' Proceedings of the 24th IEEE Conference on Decision and Control, Ft. Lauderdale, FL (December 1985) (U. Ozguner and E. Barbieri).

34. ``Decentralized Model Reference Adaptive System Using a Variable Structure Control,'' Proceedings of the 24th IEEE Conference on Decision and Control, Ft. Lauderdale, FL(December 1985) (F. Al-Abbass and U. Ozguner).

35. ``Decentralized/Relegated Control Methods,'' The SDIO/LLNL Workshop on Control for DEW Systems, Livermore, CA (March 1986). Also appears as Control Research Laboratory Report \# CRL--1004--S86--R (U. Ozguner and S. Yurkovich).

36. ``Control of a Quadruped Trot,'' Proceedings of the 1986 IEEE International Conference on Robotics and Automation, San Francisco, CA (April 1986) (J. Glower and U. Ozguner).

37. ``An Active Vibration-Damper for Flexible Structures,'' Proceedings of the Seventeenth Pittsburgh Conference on Modeling and Simulation, Pittsburgh, PA (April 1986) (J. Martin, III, U. Ozguner, and S. Yurkovich).

38. ``Decentralized Control Experiments on NASA's Flexible Grid,'' Proceedings of the 1986 American Control Conference, Seattle, WA (June 1986) (U. Ozguner, S. Yurkovich, F. Al-Abbass, and J. Martin III).

39. ``Decentralized Control Experiments on Flexible Mechanical Structures,'' 1986 Army Research Office Workshop on Kinematics, Dynamics, and Control of Mechanisms and Manipulators, Troy, NY (June 1986) (U. Ozguner and S. Yurkovich).

40. ``The Decentralized Servo Compensator and Closed -Loop Balancing,'' SIAM Conference on Linear Algebra in Signals, Systems and Control, Boston, MA (August 1986) (U. Ozguner and A. Iftar).

41. ``Time Varying Sliding Surfaces and a Decentralized MRA-VSS Approach,'' IFAC Conference on Large Scale Systems, Zurich, Switzerland (August 1986) (F. Al-Abbass and U. Ozguner).

42. ``Design of PI-Regulators for Manipulators via Singular Perturbation,'' Proc.24th Allerton Conference on Communication, Control, and Computing, Monticello, IL (Oct 1986) (F. Khorrami and U. Ozguner)

43. ``Decentralized LQG/LTR Controller Design With Local Models,'' Proc. 24th Allerton Conference on Communication, Control, and Computing, Monticello, IL (Oct 1986) (A. Iftar and U. Ozguner)

44. ``Fault Tolerant Controller Design Using Multiple Feedback Loops,'' Proc. 24th Allerton Conference on Communication, Control, and Computing, Monticello, IL (Oct 1986) (J. Glower and U. Ozguner).

45. ``A Linear--Quadratic Optimal Controller for the Servomechanism Problem,'' Proc. 25th IEEE Conf. on Decision and Control, 1784--85, Athens Greece, December 1986, (A. Iftar and U. Ozguner).

46. ``Flexible Manipulator Control Experiments and Analysis,'' Proc. 1987 Space Telerobotics Workshop, Pasadena CA, (S. Yurkovich, U. Ozguner, A. Tzes and P. Kotnik), Jan. 1987.

47. ``Dual Arm Robotic System with Sensory Input,'' Proc. 1987 Space Telerobotics Workshop, Pasadena CA, (U. Ozguner), Jan. 1987.

48. ``Decentralized Variable Structure Control of a Two--Arm Robotic System,'' Proc. IEEE Int. Conf. on Robotics and Automation, (U. Ozguner, S. Yurkovich and F. Al--Abbass), April 1987.

49. ``Active Vibration Control on the OSU Flexible Beam,'' Proc. 1987 ACC Minneapolis MN, June 1987, (U. Ozguner and S. Yurkovich).

50. ``Decentralized LQG/LTR Controller Design for Interconnected Systems,'' Proc. 1987 ACC Minneapolis MN, June 1987, (A. Iftar and U. Ozguner)

51. ``A Laboratory Facility for Flexible Structure Control Experiments,'' Proc. Sixth VPI\&SU/AIAA Symp. of Large Space Structures, June 1987, (U. Ozguner, S. Yurkovich, J. Martin and P. Kotnik).

52. ``Adaptive Control Techniques for the SCOLE Configuration,'' Invited paper in Proc. Sixth VPI\&SU/AIAA Sym. on Large Space Structures, Blacksburg VA, (K. Ossman, S. Yurkovich and U. Ozguner), June 1987.

53. ``Decentralized Frequency Shaping and Modal Sensitivities for Optimal Control of Large Space Structures,'' Proc. 1987 IFAC World Congress, Munich Germany, July 1987, (U. Ozguner and S. Yurkovich).

54. ``Control of Multiple--Mirror/Flexible Structures in Slew Maneuvers,'' Proc. AIAA Conf. on Guidance and Control, Monterey, CA, (E. Barbieri, S. Yurkovich and U. Ozguner), August 1987.

55. ``Distributed Computations of Optimal Control Strategies for a Class of Interconnected Systems,'' Proc. 25.th Allerton Conf. on Communications, Control and Computing, Monticello Illinois, (L. Acar and U. Ozguner), Sept. 1987.

56. ``A New Inclusion Concept and Optimal Control for Systems with Overlapping Information Sets,'' Proc. 25.th Allerton Conf. on Communications, Control and Computing, Monticello Illinois, (A. Iftar and U. Ozguner), Sept. 1987.

57. ``A Comparison of Multiple Time--Scale Analysis and Overlapping Decomposition,'' Proc. 1987 IEEE System, Man & Cybernetics Annual Conf., Alexandria VA, (A. Iftar, F. Khorrami and U. Ozguner), Oct. 1987.

58. ``A Linear--Quadratic Optimal Solution to the Decentralized Servomechanism Problem with Robust Noisy Controllers,'' Proc. 1987 CDC, (A. Iftar and U. Ozguner), Dec. 1987

59. ``Decentralized/Relegated Control,'' Proc. ICES--88 Atlanta, Georgia, April 1988, (U. Ozguner).

60. ``Acceleration Feedback Control for a Flexible Manipulator Arm,'' Proc. IEEE Int. Conf. on Robotics and Automation, (P. Kotnik, S. Yurkovich and U. Ozguner), Philedelphia, PA, April 1988.

61. ``Perturbation Methods in Control of Flexible Link Manipulators,'' Proc. IEEE Int. Conf. on Robotics and Automation, (F. Khorrami and U. Ozguner), Philedelphia, PA, April 1988.

62. ``Decentralized Control of Robot Manipulators via State and Proportional--Integral Feedback,'' Proc. IEEE Int. Conf. on Robotics and Automation, (F. Khorrami and U. Ozguner), Philedelphia, PA, April 1988.

63. ``DOLORES: A Software Package for Analysis and Design of Optimal Decentralized Control Problems,'' Proc. 40th IEEE NAEC, Dayton, Ohio. May 1988, (F. Khorrami, S-H. Tien and U. Ozguner).

64. ``A Completely Decentralized Suboptimal Control Strategy for Moderately Coupled Interconnected Systems,'' Proc. 1988 American Control Conf., Atlanta, Georgia, June 1988, (L. Acar and U. Ozguner).

65. ``Development of a Control Oriented Model of a Fixed--Free Beam with End-Mass,'' Proc. 1988 American Control Conf., Atlanta, Georgia, June 1988, (E. Breitfeller and U. Ozguner).

66. ``A Three--Course Control Laboratory Sequence,'' Proc. 1988 American Control Conf., Atlanta, Georgia, June 1988, (U. Ozguner).

67. ``Unconstrained and Constrained Mode Expansions for a Flexible Slewing Link,'' Proc. 1988 American Control Conf., Atlanta, Georgia, June 1988, (E. Barbieri and U. Ozguner).

68. ``A Singular Perturbation Analysis of A Distributed Parameter Model of Flexible Manipulators,'' Proc. 1988 American Control Conf., Atlanta, Georgia, June 1988, (F. Khorrami and U. Ozguner).

69. ``Two Controller Design Approaches for Decentralized Systems,'' Proc. AIAA Guidance, Navigation and Control Conf., Minneapolis, Min., Aug. 1988, (U. Ozguner, F. Khorrami and A. Iftar).

70. ``Representation of Uncertain Actuator Dynamics and Decentralized Robust Controller Design,'' Proc. 1988 Allerton Conference, Monticello, Ill., Sept. 1988, (A. Iftar and U. Ozguner).

71. ``Structured Modeling of Unstructured Uncertainties and Robust Controller Design in State Space,'' Proc. Winter Annual Meeting of ASME, Chicago Ill., Nov. 1988, (A. Iftar and U. Ozguner).

72. ``Frequency--Shaped Cost Functionals for Decentralized Systems,'' Proc. 27th IEEE Conf on Dec \& Control, Austin TX, December 1988, (F. Khorrami and U. Ozguner).

73. ``Rest--to--Rest Slewing of Flexible Structures in Minimum Time,'' Proc. 27th IEEE Conf on Dec \& Control, Austin TX, December 1988, (E. Barbieri and U. Ozguner).

74. ``Design of a Structural and Functional Hierarchy for Planning and Control of Telerobotic Systems,'' Proc NASA Conference on Space Telerobotics, Pasadena CA, January 1989, (L. Acar and U. Ozguner).

75. ``A Control Approach for Robots with Flexible Links and Rigid End--Effectors,'' Proc NASA Conference on Space Telerobotics, Pasadena CA, January 1989, (E. Barbieri and U. Ozguner).

76. ``Large Space Structures Experiments at the Flight Dynamics Laboratory,'' Proceddings of the 3rd NASA/DOD CSI Technology Conference, San Diego, CA (January 1989) (R. W. Gordon, U. Ozguner and S. Yurkovich).

77. ``Recent Developments in the OSU Flexible Structures Control Laboratory,'' Proceedings of the Seventh VPI\&SU/AIAA Symposium on Dynamics and Control of Large Space Structures, Blacksburgh, VA (May 1989) (S. Yurkovich and U. Ozguner).

78. ``Problems in Implementing Distributed Control,'' Proc. 1989 American Control Conf., Pittsburgh PA, June 1989.

79. ``A Case Study in Control Design and Implementation,'' Proc 1989 American Control Conf., Pittsburgh PA, June 1989, (U. Ozguner, S. Yurkovich and R. Gordon).

80. ``Optimal Decentralized Feedback Control for a Truss Structure'', AIAA Guidance, Navigation and Control Conf., Boston, MA, August 1989, (A. Cagle, U. Ozguner).

81. ``Algorithmic Considerations of Integrated Design for CSI on a Hypercube Architecture'', 3rd Conf. on Aerospace Computational Control, Oxnard, CA, August 1989, (U. Ozguner and F. Ozguner).

82. ``Design of Hierarchically Distributed Expert Controllers for Large--Scale Systems'', 4th IEEE Int. Symp. on Intelligent Control, Albany, NY, Sept. 1989, (L. Acar and U. Ozguner).

83. ``Relegation for Decentralized Control of Coupled Systems'', Proc. 1988 Allerton Conference, Monticello Ill., September 1989, (D. Schoenwald and U. Ozguner).

84. ``Decentralized and Distributed Control Approaches and Algorithms'', Proceedings of the IEEE Conference on Decision and Control, Tampa, FL (December 1989). (U. Ozguner).

85. ``An Analysis of Distributed Vibration Control of Flexible Manipulators Using Integral Manifolds'', Proceedings of the IEEE Conference on Decision and Control, Tampa, FL (December 1989). (D. Schoenwald and U. Ozguner)

86. ``Fault Tolerant Control Applied to the JPL/AFAL Large Flexible Ribbed Antenna Structure'', (J. Donne and U. Ozguner), Proc. of 2nd USAF/NASA Workshop on Health Monitoring and System Identification of Precision Space Structures, April 1990.

87. ``Frequency Shaped Sliding Mode Synthesis'', (D. Young and U. Ozguner), Workshop on Variable Structure Systems Control, Yugoslavia, April 1990.

88. ``Frequency Shaped Variable Structure Control'', (D. Young and U. Ozguner), Proc. 1990 ACC, San Diego, CA, May 1990.

89. ``Decentralized Control Experiments on the JPL Flexible Spacecraft Model'', (U. Ozguner, K. Ossman, J. Donne, M. Boesch and A. Ahmed), Proc. 1990 ACC, San Diego, CA, May 1990.

90. ``The Concept of Relegation for Decentralized Control'', (U. Ozguner and D. Schoenwald), Proc. of the 1990 IFAC Congress, August 1990, Talinn, Estonia.

91. ``Coordination of Hierarchical Systems'', Proc. 5th IEEE International Symposium on Intelligent Control 1990, Philedelphia, PA, 2--7, (U. Ozguner)

92. ``Adaptive Control of a Flexible Structure with Non--Collocated Sensors and Actuators'', Proc. 5th IEEE International Symposium on Intelligent Control 1990, Philedelphia, PA, 2--7, (J. Donne, K. Ossman, U. Ozguner, M. Boesch and A. Ahmed).

93. ``Modeling and Control of Rapid Deployment Truss Structure Systems'', 28th Annual Allerton Conference on Communication, Control and Computing, October 1990, (M. Boesch, K. Xu and U. Ozguner).

94. ``Decentralized Control Experiments on a Truss Structure'', Proceedings of the 29th IEEE Conference on Decision and Control, Honolulu, Hawaii, December 1990 (P. Dix, U. Ozguner and R.W. Gordon).

95. ``On Combining Slewing and Vibration Control in Flexible Manipulators Via Singular Perturbations'', Proceedings of the 29th IEEE Conference on Decision and Control, Honolulu, Hawaii, December 1990 (D. Schoenwald and U. Ozguner).

96. ``Dynamic Modeling and Control of a Rigid--Flexible Closed--Chain Structure,'' Proceedings of the 8th VPI\&SU/AIAA Symposium on Dynamics and Control of Large Space Structures, Blacksburgh, VA (May 1991) (J-X. Xu, U. Ozguner and K. D. Young).

97. ``Variable Structure Control of Rigid--Flexible Closed--Chain Systems,'' Proc. 1991 ACC, Boston MA, June 1991. (J-X. Xu, U. Ozguner and K. D. Young). ``Stability of Linear Feedback Systems with Random Communication Delays,'' Proc. 1991 ACC, Boston MA, June 1991. (R. Krtolica, U. Ozguner, H. Chan, H. Goktas, J. Winkelman and M. Liubakka).

98. ``Modeling and Control of Large Space Structures Using Circuit Analogies,'' Proc. 1991 Guidance, Navigation and Control, New Orleans, LA, Aug. 1991. (L. Lenning and U. Ozguner).

99. ``Synthesis of Feedback Linearization and Variable Structure Control with Neural Net Compensation,'' Proc. 1991 IFAC Symp. on DIS \& 1991 IEEE International Symp. on Intelligent Control, Arlington VA, Aug. 1991 (J-X. Xu, J Donne and U. Ozguner).

100. ``Modeling and Analysis of Hybrid Systems: Examples,'' Proc. 1991 IFAC Symp. on DIS & 1991 IEEE International Symp. on Intelligent Control, Arlington VA, Aug. 1991. (K. Passino and U. Ozguner).

101. ``The Intelligence Between Sensing and Actuation for Smart Structures,'' Proc. Conf. on Active Materials and Adaptive Structures, Nov. 1991, Alexandria VA, (U. Ozguner and L. Lenning).

102. ``Some Issues in Decentralized Control of Nonlinear Systems,'' 30th IEEE CDC, December 1991, Brighton, England. (D. Schoenwald and U. Ozguner).

103. ``Vibration Suppression in Flexible Structures,'' Proc. NASA Workshop on Distributed Parameter Modeling and Control of Flexible Aerospace Systems, Williamsburg, Virginia, June 1992, (S. Drakunov and U. Ozguner)

104. ``The Intelligence Between Sensing and Actuation in Smart Structures,'' Active Materials and Adaptive Structures, G. Knowles Ed., pp. 824--830, Institute of Physics Publishing, 1992, (U. Ozguner and L.Lenning)

105. ``Optimization of Nonlinear System Output via Sliding--Mode Approach,'' IEEE Workshop on Variable Structure and Lyapunov Control of Uncertain Dynamical Systems, September 1992, University of Sheffield, UK, (S. Drakunov and U. Ozguner)

106. ``Vibration Suppression in Flexible Structures via the Sliding--Mode Control Approach,'' IEEE Workshop on Variable Structure and Lyapunov Control of Uncertain Dynamical Systems, September 1992, University of Sheffield, UK, (S. Drakunov and U. Ozguner)

107. ``Decentralized Sliding--Mode Observers for Interconnected Nonlinear Systems,'' IEEE Workshop on Variable Structure and Lyapunov Control of Uncertain Dynamical Systems, September 1992, University of Sheffield, UK, (S. Drakunov, U. Ozguner and D. Schoenwald)

108. ``Sliding Mode Brushless DC Motor Torque Control with Minimum Energy Losses,'' Proc. 1992 ACC, Chicago IL, June 1992. (W. Su, S Drakunov and U. Ozguner).

109. ``Flexible Structure Experiments at JPL and WPAFB,'' Proc. 1992 ACC, Chicago IL, June 1992. (A. Buddie, T. Georgiou, U. Ozguner and M. Smith).

110. ``Experiments on a Truss--Panel Structure,'' Proc. 1992 ACC, Chicago IL, June 1992. (U. Ozguner and K. Redmill).

111. ``Robust Feedback Linearization of Uncertain Nonlinear Systems,'' Proc. 1992 ACC, Chicago IL, June 1992. (D. Schoenwald and U. Ozguner).

112. ``Controllability, Reachability, Stabilizability and State Reduction in Automata,'' Proc. 1992 IEEE International Symposium on Intelligent Control, Glasgow, Scotland, UK, August 1992, (M. Dogruel and U. Ozguner).

113. ``Neural Control of Flexible Systems with Partially Known Dynamics,'' Proc. 1992 IEEE International Symposium on Intelligent Control, Glasgow, Scotland, UK, August 1992, (J. Donne, J--X. Xu and U. Ozguner).

114. ``Relegation of Gimbal Angles to Pointing Control On the Space Station,'' Proc. The First IEEE Conference on Control Applications, Dayton, OH, Sept. 1992, (D. Schoenwald and U. Ozguner).

115. ``Nonlinear Control of a Rodless Pneumatic Servoactuator,'' Proc. The First IEEE Conference on Control Applications, Dayton, OH, Sept. 1992, (U. Ozguner, S. Drakunov and G. Hanchin).

116. ``Automotive Suspension Control Through a Computer Communication Network,'' Proc. The First IEEE Conference on Control Applications, Dayton, OH, Sept. 1992, (U. Ozguner, H. Goktas, H Chan, M. Liubakka, J. Winkelman and R. Krtolica).

117. ``Sliding Mode Brushless DC Motor Current and Torque Control Algorithms,'' Proc. The First IEEE Conference on Control Applications, Dayton, OH, Sept. 1992, (S. Drakunov, W--C. Su and U. Ozguner).

118. ``A Decentralized Approach for Autonomous Structural Control,'' Autonomous Structural Control Symposium, August 1992, USAF Academy, Colorado.

119. ``Variable Structure Control in Sampled Systems,'' NSF/OAI Workshop on Variable Structure Control, October 1992, Brook Park, OH.

120. ``Optimal Control of Feedback Linearizable Systems,'' Proc. 1992 CDC, Tucson Arizona, (D. Schoenwald and U. Ozguner).

121. ``Vibration Suppression in Flexible Structures via the Sliding--Mode Control Approach,'' Proc 1992 CDC, Tucson Arizona, (S. Drakunov and U. Ozguner).

122. ``Distributed Hierarchical Architecture for Structural Control,'' Proc. North American Conf. on Smart Structures and Materials, 1--4 Feb. 1993, Albuquerque, New Mexico.

123. ``Use of Neural Networks and Sliding Modes in Vibration Damping,'' Proc. North American Conf. on Smart Structures and Materials, 1--4 Feb. 1993, Albuquerque, New Mexico, (S. Drakunov, U. Ozguner and L. Lenning).

124. ``Discrete--Time Sliding Modes in Stochastic Systems,'' Proc. 1993 ACC, San Francisco, June 1993. (S. V. Drakunov, W.-C. Su and U. Ozguner).

125. ``Decentralized Control of Uncertain Systems via Sensitivity Models,'' Preprints 12th World Congress IFAC, Sydney Australia, 1993. (D. A. Schoenwald and U. Ozguner). ``Sliding Mode Control in Discrete Time Linear Systems,'' Preprints 12th World Congress IFAC, Sydney, Australia, 1993. (W-C. Su, S. Drakunov and U. Ozguner).

126. ``The Design of Intelligent Hierarchical Controllers for a Space Shuttle Vehicle,'' Proc. 1993 IEEE International Symposium on Intelligent Control, Chicago Ill. (K. Redmill, U. Ozguner, J. Musgrave and W. Merill).

127. ``Sliding Mode Control in Hybrid Systems,'' Proc. 1993 International Symposium on Intelligent Control, Chicago Ill. (S. Drakunov, M. Dogruel and U. Ozguner).

128. ``Discrete Time Sliding Modes in Nonlinear Sampled--Data Systems,'' Proc. 31st Annual Allerton Conference, Monticello Ill., 1993. (W-C. Su, U. Ozguner and S. Drakunov)

129. ``PID-like control of Discrete Event Systems having a Discrete State Model Representation,'' Proc. 31st Annual Allerton Conference, Monticello Ill., (Invited Paper) 1993, (R. DeCarlo, S. Drakunov, K. Passino and U. Ozguner).

130. ``Optimal Relegation and Regulation for Intelligent Space Shuttle Vehicle Control,'' Proc 1993 CDC, San Antonio Texas, (K. Redmill, U. Ozguner and J. Musgrave).

131. ``Sliding Mode Control of Discrete State Systems,'' Proc. 1993 CDC, San Antonio, Texas, (M. Dogruel, S. Drakunov and U. Ozguner).

132. ``Sliding Mode with Chattering Reduction in Sampled Data Systems,'' Proc. 1993 CDC, San Antonio, Texas, (W-C. Su, S. Drakunov, U. Ozguner and D. Young).

133. ``Determination of the Optimal Gimbal Angles for the Solar Arrays of the Space Station Using a Neural Network,'' Proc. IEEE Conference on System Theory, Feb. 1994, Ohio, (D. Clancy and U. Ozguner).

134. ``Discrete State and Hybrid Systems,'' Proc. 3rd Turkish Symposium on Artificial Intelligence and Neural Networks, June 1994, Ankara, Turkey. (M. Dogruel and U. Ozguner).

135. ``Closed-loop Control of Systems Over a Communication Network with Queues,'' Proc. 1994 ACC, June-July 1994, Baltimore, Maryland, (W-C. Su, S. Drakunov and U. Ozguner).

136. ``Measurement of Interaction in Multivariable Systems: Some Structural Issues,'' Proc. 1994 ACC, June-July 1994, Baltimore, Maryland, (K. Unyelioglu, U. Ozguner and B. Ozguler).

137. ``Minimax Optimal Control for Uncertain Systems,'' Proc. 1994 ACC, June-July 1994, Baltimore, Maryland, (A. Iftar and U. Ozguner).

138. ``Nonstandard Control Inputs in the Integrated Design of Vehicles,'' Proc. 1994 ACC, June-July 1994, Baltimore, Maryland, (K. Unyelioglu, U. Ozguner, T. Hissong and J. Winkelman).

139. ``Stability of Hybrid Systems,'' Proc. 9th IEEE International Symposium on Intelligent Control, Aug. 1994, Columbus, OH, (M. Dogruel and U. Ozguner).

140. ``Wavelet Neural Networks: A Design Perspective,'' Proc. 9th IEEE International Symposium on Intelligent Control, Aug. 1994, Columbus, OH, (D. Clancy and U. Ozguner).

141. ``Design and Evaluation of RBF and Neural Network Methodologies for Feathering the Solar Arrays of the Space Station,'' Proc. IFAC Conference on Aerospace Control, Sept. 1994, San Francisco, CA (D. Clancey and U. Ozguner).

142. ``Implementation of Varable Structure Control for Sampled Data Systems,'' Proc. VSS and Lyapunov Techniques Workshop, Sept. 1994, Benevento, Italy. (W.C.Su, S. Drakunov and U. Ozguner).

143. ``Flexible Beam Modelling with Analog VLSI circuits,'' INT Mechanical Engr. Congress and Expo., Nov. 1994, Chicago, Ill, (A. Shah, L. Lenning, S. Bibyk and U. Ozguner).

144. ``Frequency Domain Design of Active Suspension Controllers,'' 33rd CDC, Dec. 1994, Orlando, Fla, (K. Unyelioglu and U. Ozguner).

145. ``H-infinity Optimal Decentralized Feedback: Time-varying versus Time-Invariant Compensation,'' 33rd CDC, Dec. 1994, Orlando, Fla, (K. Unyelioglu and U. Ozguner).

146. ``ABS Control using Optimum Search via Sliding Modes,'' 33rd CDC, Dec. 1994, Orlando, Fla, (S. Drakunov, U. Ozguner, P. Dix and B. Ashrafi).

147. ``Control of Interconnected Systems over a Communication Network with Queues,'' 33rd CDC, Dec. 1994, Orlando, Fla, (H. C. Chan and U. Ozguner).

148. ``Analog VLSI Circuit Models for Smart Flexible Structures,'' SPIE Conf. on Active Materials and Adaptive Structures, Feb. 1995, San Diego CA (A. Shah, L. Lenning, S. Bibyk and U. Ozguner).

149. ``Design of a Lateral Controller for a Cooperative Vehicle System,'' SAE Paper 950474, also SP-1076, pp 27-34. (U. Ozguner, K. Unyelioglu, C. Hatipoglu and F. Kautz).

150. ``Combined Longitudinal and Lateral Controller Design for a Vehicle with Radar Sensors,'' SAE Paper 951009, also SP-1076, pp 51-57. (U. Ozguner, S. Drakunov, J. Young and L. Henderson).

151. ``Radar based Integrated Vehicle Control,'' Proceedings of the 1995 Annual Meeting of ITS America, Washington DC, 1995, (U. Ozguner, J. Young, S. Drakunov, L. Henderson and K. Unyelioglu).

152. ``Optimal Design of a Normal Force Controller,'' First IFAC Workshop on Advances in Automotive Control, Ascona, Switzerland, March 1995. (J. Winkelman, U. Ozguner, K. Unyelioglu)

153. ``A Two-time-scale Analysis of Active Suspension Control of a 2D/4DOF Half-car model,'' 1995 ACC, Seattle, Washington, June 1995, (R. Krtolica, H. Chan, U. Ozguner and D. Hrovat).

154. ``O(T^2) sliding in Sampled Systems with Applications,'' 1995 ACC, Seattle, Washington, June 1995, (W.C. Su, S. Drakunov and U. Ozguner).

155. ``On Optimal Design of a Lane Change Controller,'' Proc.1995 Confrence on Intelligent Vehicles April 1995, Dearborn, MI. (C. Hatipoglu, U. Ozguner, K. Unyelioglu).

156. ``An Analytical Study of Vehicle Steering Control,'' Proc.1995 IEEE Conf. on Control Applications, Albany, NY. (C. Hatipoglu, U. Ozguner, K. Unyelioglu).

157. ``Optimal Control of Systems Over a Communication Network with Queues Via a Jump System Approach,'' Proc. 1995 IEEE Conf. On Control Applications, Albany, NY. (H. Chan, U. Ozguner).

158. ``A Multiresolutional Controller for Sensitivity Minimization of Flexible Structures,'' Proc. 1995 ISIC, Monterey, CA. (D. Clancy and U. Ozguner).

159. ``Stability of a Set of Matrices: An Application to Control Systems,'' 1995 ISIC, Monterey, CA. (M. Dogruel and U. Ozguner).

160. ``Stability of a Set of Matrices,'' Proc. 34th IEEE CDC, Dec. 1995, New Orleans, LA. (M. Dogruel and U. Ozguner).

161. ``Some Aspects of Vehicle Dynamics and their Implications on Control,'' Proc. 34th IEEE CDC, Dec. 1995, (J. Winkelman, U. Ozguner, K. Unyelioglu).

162. "Experimental Results of a Lane Following Controller Based on a Vision Sensor," Paper 1192, Third Annual World Congress on Intelligent Transport Systems, Oct. 1996, Orlando FL (U. Ozguner, M. Sommerville, K. Redmill, C. Hatipoglu, K.A. Unyelioglu and D. Craig).

163. "A Decomposition Method for the Design of Active Suspension Controllers," IFAC '96, 13th World Congress of International Federation of Automatic Control, June 1996, San Francisco CA, pp 29-34 (K.A. Unyelioglu, U. Ozguner and J. Winkelman).

164. "Advanced Automatic Lateral Control Schemes for Vehicles on Highways," 13th World Congress of International Federation of Automatic Control, June 1996, San Francisco CA, pp 477-482 (C. Hatipoglu, U. Ozguner and K.A. Unyelioglu).

165. "A Multiresolutional Controller for Sensitivity Minimization," 13th World Congress of International Federation of Automatic Control, June 1996, San Francisco CA, pp 91-96 (D.J. Clancy and U. Ozguner).

166. "Sliding Mode Design for Robust Linear Optimal Control," 13th World Congress of International Federation of Automatic Control, June 1996, San Francisco CA, pp 71-76 (K.D. Young, and U. Ozguner).

167. "Radar Based Convoying Using a Frequency Selective Surface Patch," Proceedings of the 1996 Annual Meeting of ITS America, April 1996, Houston TX , pp 750-755 (U. Ozguner, C. Hatipoglu, K.A. Unyelioglu, J. Young, L. Henderson, S. Drakunov, and I. Haskara).

168. "Convoying Using a Radar Reflective Patch," SAE Paper 960515, also in SP-1143, pp 1-6 1996 SAE International Congress \& Exposition, February 1996, Detroit, MI, (U. Ozguner, J. Young, K.A. Unyelioglu and L. Henderson).

169. "A Multi-Level Automotive Speed Control," SAE Paper 961011, also in SP-1143, 1996 SAE International Congress \& Exposition, February 1996,Detroit, MI, pp 37-42 (M. Sommerville, K. Redmill and U. Ozguner).

170. "Longitudinal Headway Control of Autonomous Vehicles," Proceedings of the 1996 IEEE International Conference on Control Applications, September 1996, Dearborn MI, pp 721-726 (C. Hatipoglu, U.Ozguner and M. Sommerville).

171. "The Grandma and The Teenager Driving: Personality, Risk Aversion, Self Awareness and Other Intelligent Control Problems," Intelligent Systems: A Semiotic Perspective, October 1996, Washington DC, (U. Ozguner).

172. "Decentralized Fixed Zeros," Proceedings of the 35th IEEE Conference on Decision and Control, December 1996, Kobe Japan, pp 1992-1997 (K.A. Unyelioglu, U. Ozguner and A B. Ozguler).

173. ``Multiresolutional Controller Design: Sensitivity Minimization," Proceedings of the 35th IEEE Conference on Decision and Control, December 1996, Kobe Japan, pp 1-6 (D. Clancy and U. Ozguner).

174. ``On the Variable Structure Control of a Throttle Actuator for Speed Control Applications," 1996 IEEE International Workshop on Variable Structure Systems, December 1996, Tokyo Japan, pp 187-192 (M. Sommerville, C. Hatipoglu and U. Ozguner).

175. ``On Variable Structure Observers," 1996 IEEE International Workshop on Variable Structure Systems, December 1996, Tokyo Japan, pp. 193-198 (I. Haskara, U. Ozguner and V. Utkin).

176. ``A Control Engineer's Guide to Sliding Mode Control," 1996 IEEE International Workshop on Variable Structure Systems, December 1996, Tokyo Japan, pp 1-14 (K.D. Young, V.. Utkin and U. Ozguner).

177. ``Expansions and Contractions of Hybrid Systems," Proc. 1997 ACC. (A. Iftar and U. Ozguner).

178. ``Steering and Lane Change: A Working System" Proc. of I. IEEE ITS Conf., Boston, USA, November 9-12 1997 p. 117 (C. Hatipoglu, K. Redmill and U. Ozguner)

179. ``H-Infinity Controller Design for Automatic Steering of Vehicles with Modeled Time Delays", Proc. of I. IEEE ITS Conf., Boston, USA, November 9-12 1997 p. 113 (C. Hatipoglu H. Ozbay and U. Ozguner)

180. ``The OSU Demo 97 Vehicle", Proc. of I. IEEE ITS Conf., Boston, USA, November 9-12 1997 p. 221 (U. Ozguner, B. Baertlein, C. Cavello, D. Farkas, C. Hatipoglu, S. Lytle, J. Martin, F. Paynter, K. Redmill, S. Schneider, E. Walton, J. Young)

181. ``Autonomy in a Restricted World", Proc. of I. IEEE ITS Conf., Boston, USA, November 9-12 1997 p. 283 (U. Ozguner, C. Hatipoglu and K. Redmill)

182. ``Controller Design for a Class of Systems with Inherent Right Hand Side Discontinuities" Proc. of 1997 CDC, December 10-12 1997, San Diego, CA pp. 4024-4025 (U. Ozguner and C. Hatipoglu)

183. ``Variable Structure Control for Uncertain Sampled Data Systems", Proceedings of IEEE Conference on Decisison and Control (CDC'97) pp. 3226-3231, San Diego, CA, December 10-12, 1997. (I. Haskara, U. Ozguner and V. Utkin.)

184. ``Combined Decentralized Longitudinal and Lateral Controller Design for Truck Convoys", IEEE Conference on Intelligent Transportation Systems, pp. 43, Boston, MA, November 9-12, 1997. (I. Haskara, C. Hatipoglu and U. Ozguner.)

185. ``Control System Testbeds and Toys: Serendipitous or Suspect?" Proc. of IEEE ACC. San Antonio, TX, June 1997, (S. Yurkovich, U. Ozguner, and K. Passino.)

186. "Robust Control of Systems Involving Non-smooth Nonlinearities Using Modified Sliding Manifolds", Proceedings of the American Control Conference Philadelphia, Pennsylvania, pp. 2133-2137, June 1998. (C. Hatipoglu and U. Ozguner)

187. "Using Sliding Mode Theory for Friction Compensation", Proceedings of The 5th International Workshop on Variable Structure Systems, pp. 73-76, Longboat Key, FL, December 1998. (C. Hatipoglu and U. Ozguner)

188. "Multiresolutional Controller Design", Proceedings of the American Control Conference, Philadelphia, Pennsylvania, pp. 3519-3523, June 1998. (D. Clancy and U. Ozguner)

189. "Dynamic Spark Advance Control", Proceedings of IFAC Workshop-Advances in Automotive Control Preprints, Ohio, pp. 249-254, 1998. (I. Haskara, U. Ozguner, and J. Winkelman)

190. "Equivalent Value Filters in Disturbance Estimation and State Observation", Proceedings of The 5th International Workshop on Variable Structure Systems, pp. 77-83, Longboat Key, FL, December 1998. (I. Haskara and U. Ozguner)

191. "Synthesized Sliding Mode Control For A Two-Link Flexible Manipulator", Proceedings of The 5th International Workshop on Variable Structure Systems, pp. 124-130, Longboat Key, FL, December 1998. (J. X. Xu, W. J. Cao, K. D. Young, and U. Ozguner)

192. Ohio State University Bus Location Information System", Proceedings of the Intelligent Transportation Society of America 8th Annual Meeting and Exposition, pp. 1-9, Detroit, May 1998. (Keith A. Redmill, John I. Martin, and U. Ozguner)

193. "Decentralized Sliding Mode Control Design for Discrete Time Systems", Proceedings of The 5th International Workshop on Variable Structure Systems, pp. 43-49, Longboat Key, FL, December 1998. (M. Akar and U. Ozguner)

194. "Sliding Mode Control Using State/Output Feedback in Hybrid Systems", Proceedings of the 37th IEEE Conference on Decision & Control, pp. 2241-2422, Tampa, FL, December 1998. (M. Akar and U. Ozguner)

195. "A Sensor Fault Controller Scheme to Achieve High Measurement Fidelity for Intelligent Vehicles, with Applications to Headway Maintenance", Proceedings of the Intelligent Transportation Society of America 8th Annual Meeting and Exposition, pp. 1-13, Detroit, May 1998. (Scott J. Schneider and U. Ozguner)

196. "A Framework for Data Validation and Fusion, and Fault Detection and Isolation for Intelligent Vehicle Systems", Proceedings of IVI, Stuttgart, Germany, Oct. 1998. (Scott J. Schneider and U. Ozguner).

197. "Decentralized Sliding Mode Control Design for Hybrid Systems," Proc. American Control Conference, pp. 525-529, San Diego, CA, June 1999. (M. Akar and Ü. Özgüner)

198. "Tuning for Dynamic Spark Advance Control," Proc. American Control Conference, pp. 163-164, San Diego, CA, June 1999. (J. Winkelman, I. Haskara, and Ü. Özgüner)

199. "Variable Structure Systems," Proc. American Control Conference, pp. 163-164, San Diego CA, June 1999. (D. Young, Ü. Özgüner)

200. "Handling Actuator Non-Smooth Nonlinearities Using Variable Structure Control," Preprints 14th IFAC World Congress, Vol. F pp. 43-48, July 1999, Beijing, China. (C. Hatipoglu, Ü. Özgüner)

201. "Decentralized sliding mode control for large scale systems," Preprints 14th IFAC World Congress, Vol. L pp. 217-222, July 1999, Beijing, China. (M. Akar, Ü. Özgüner)

202. "VATSIM: A Vehicle and Traffic Simulator," Proc. IEEE ITS Conference, Tokyo, Japan. (K. Redmill, Ü. Özgüner)

203. "Stability and Stabilization of Takagi-Sugeno fuzzy systems," Proc. CDC, pp. 4840-4845, December 1999, Phoenix AZ. (M. Akar, Ü. Özgüner)

204. "Decentralized, parallel, distributed compensator design for Takagi-Sugeno fuzzy systems," Proc. CDC, Dec. 1999, Phoenix AZ. (M. Akar, Ü. Özgüner)

205. "Combined Decentralized Multidestination Dynamic Routing and Real-time Traffic Light Control for Congested Traffic Networks," Proc. CDC, Dec. 1999, Phoenix AZ. (J. Lei, Ü. Özgüner)

206. "An Estimation Based Robust Tracking Controller for Uncertain Nonlinear Systems in Strict Feedback Form," Proc. CDC, Dec. 1999, Phoenix AZ. (I. Haskara, Ü. Özgüner)

207. "Virtual Environment Simulation for Image Processing Sensor Evaluation," *Proc. IEEE ITS Conference*, Dearborn MI, Oct. 2000. (Keith Redmill, John Martin and Ümit Özgüner)

208. "Integration of Dynamic Routing and Intersection Control in Intelligent Transportation Systems," *Proc. IEEE ITS Conference*, Dearborn MI, Oct. 2000. (Jia Lei and Ümit Özgüner)

209. "Lane Detection Using Histogram Based Segmentation and Decision Trees," *Proc. IEEE ITS Conference*, Dearborn MI, Oct. 2000. (Juan Pablo Gonzalez and Ümit Özgüner)

210. "Sensor and Data Fusion Design and Evaluation with a Virtual Environment Simulator," *Proceedings of the IEEE Intelligent Vehicles Symposium 2000,* Dearborn, MI, Oct. 3-5, 2000. pp. 668-674. (Keith Redmill, John Martin, Ümit Özgüner and Kazuya Tamura)

211. "Vision System for Tag Identification and Distance Measurement*," Proc. ITS-America*, July 2000. (Juan Pablo Gonzalez and Ümit Özgüner)

212. "Pneumatic Brake System Modeling for Systems Analysis," *SAE Paper 2000-01-3414, Truck and Bus Meeting and Expo,* Dec. 4-6, 2000. (Tankut Acarman, Ümit Özgüner, Cem Hatipoglu and Anne-Marie Igusky)

213. "Estimation based discrete-time sliding control of uncertain nonlinear systems in discrete strict feedback form," *Proc. IEEE CDC*, pp. 2599-2604, Sydney, Dec. 2000. (Ibrahim Haskara and Ümit Özgüner)

214. "Stability analysis of a sliding observer based robust output tracking control design for a nonlinear system," *Proc. IEEE CDC*, Sydney, Dec. 2000. (Ibrahim Haskara and Ümit Özgüner)

215. "Decentralized Hybrid Traffic Network Routing Using Optimal Sliding Modes," *Proc. IEEE CDC,* pp. 2607-2608, Sydney, Dec. 2000. (Jia Lei and Ümit Özgüner)

216. "Highway On-Ramp Control Using Sliding Modes," *Proc. 6th IEEE Int. Workshop on VSS,* pp. 451-459, Queensland, Australia, December 2000. (Jia Lei and Ümit Özgüner)

217. "On Sliding Mode Design Tools in Recent Automotive Applications: A Tutorial," pp. 460-469, Queensland, Australia, December 2000. (Ibrahim Haskara, Cem Hatipoglu and Ümit Özgüner)

218. "Wireless Issues in ITS: A User's Perspective*," Proc. ITST2000*, Oct. 26-27, 2000. Yokosuka Research Park, Japan. (Ümit Özgüner)

219. "Wireless Issues in ITS," Proc. Int. Symp. on Antennas and Propogation, Fukuoka, Japan, June 2000. (Plenary Talk). (Ümit Özgüner, Brian Baertlein and Mike Fitz)

220. "Non-Standard Safety Enhancements" in IEEE Intelligent Vehicle Symposium, Tokyo, Japan, May 2001, pp.417-423. (Tankut Acarman, Yaodong Pan and Umit Ozguner).

221. "A Robust Nonlinear Controller Design for a Pneumatic Actuator", Proceedings of the American Control Conference, Arlington VA, June 2001, pp. 4490-4495. (Tankut Acarman, Cem Hatipoglu and Umit Ozguner).

222. "A Control Authority Transition System for Collision Avoidance" in IEEE Intelligent Transportation Systems Proceedings, Oakland CA, August 2001, pp.468-473. (Tankut Acarman, Yaodong Pan and Umit Ozguner)

223. "DGSP/INS Integrated Positioning for Control of Automated Vehicles", IEEE ITSC 2001, Oakland, CA, 25-29 August 2001, p. 172-178. (Keith A. Redmill, Takeshi Kitajima, Umit Ozguner)

224. "A Lane Tracking System for Intelligent Vehicle Applications," IEEE ITSC 2001, Oakland, CA, 25-29 August 2001, p. 273-279. (Keith A. Redmill, Srinivasa Upadhya, Ashok Krishnamurthy, Umit Ozguner)

225. "Non-Standard Safety Technology" in IEEE Intelligent Transportation Systems Proceedings, Oakland CA, August 2001, pp.1128-1133. (Yaodong Pan, Tankut Acarman and Umit Ozguner)

226. "VATSIM, a simulator for vehicles and traffic," Proceedings of IEEE ITSC 2001, Oakland, CA, August 2001, p. 686-691. (Jia Lei, Keith Redmill and Umit Ozguner)

227. "Variable Structure Control of Electronic Throttle Valve", IEEE International Vehicle Electronics Conference (IVEC'2001), pp.103--108, Tottori, Japan, September 25-28, 2001 (Y. Pan, O. Dagci, and U. Ozguner)

228. "Self-Optimizing Brake Control Design for Commercial Vehicles" in International Truck and Bus Meeting and Exhibition, Chicago, Illinois, November 12-14, 2001, SAE Technical Paper Series, 2001-01-2731 (Cem Hatipoglu*, Yu Hai* and Umit Ozguner)

229. "Relation of Dynamic Sliding Surface Design and High Order Sliding Mode Controllers" Proceedings of the 40th Conference on Decision and Control, December, 2001, Orlando, FL, pp.934-939. (Tankut Acarman and Umit Ozguner)

230. "Discrete-time Sliding Mode Control of Electronic Throttle Valve", the 40th IEEE Conference on Decision and Control, Orlando, Florida, USA, December 4-7, 2001 (U. Ozguner, S. Hong, Y. Pan, and J. Winkelman)

231. "Decentralized hybrid intersection control," Proceedings of the 40th IEEE Conference on Decision and Control, Orlando, Florida, December 4-7, 2001, p. 1237-1242. (Jia Lei and Umit Ozguner)

232. "Extremum-Seeking Control via Sliding Mode with Periodic Search Signal", Proceedings of the 41st IEEE Conference on Decision and Control, 2002, pp. 323-328. (Hai Yu, Umit Ozguner)

233. "Sliding Mode Control of Electronic Throttle Valve", Proceedings of the American Control Conference, Anchorage, AK, May 2002, pp. 1996-2001. (Oguz Hasan Dagci, Yaodong Pan, and Umit Ozguner)

234. "A Robust Controller Design for Drive by Wire Hydraulic Power Steering System", Proceedings of the American Control Conference, Anchorage, AK, May 2002, pp. 2522-2527. (Tankut Acarman, Keith A. Redmill and Umit Ozguner)

235. "Extremum-Seeking Control Strategy for ABS System with Time Delay", Proceedings of the American Control Conference, Anchorage, AK, May 2002, pp. 3753-3758. (Hai Yu and Umit Ozguner)

236. "Discrete-time Extremum Seeking Algorithms", Proceedings of the American Control Conference, Anchorage, AK, May 2002, pp. 3147-3152. (Yaodong Pan and Umit Ozguner)

237. "Inter-vehicle Communication Recent Developments at Ohio State University", Proceedings of IEEE Intelligent Vehicle Symposium, France, June 2002. (Ü. Özgüner, F. Özgüner, M. Fitz, O. Takeshita, K. Redmill, W. Zhu, and A. Dogan)

238. "Frequency Shaping Compensation for Backstepping Sliding Mode Control", Proceedings of International Federation of Automatic Control, Spain, July, 2002. (Acarman,T., and Ozguner, U.)

239. "Pneumatic Pressure Control Design via Blending Simulations to Implementation", ASME International ESDA Proceedings, July 2002, Turkey. (Acarman, T., Hatipoglu, C., and Ozguner, U.)

240. "Development of a Tractor-Semitrailer Tanker Truck Simulation Program and Rollover Stability Analysis and Control", ASME International ESDA Proceedings, July 2002, Istanbul, Turkey. (Acarman,T., Jiang,S., Redmill,K.A., and Ozguner, U.)

241. "A MAC Layer Protocol for Real-time Inter-vehicle Communication", Proceedings of IEEE 5th International Conference on Intelligent Transportation Systems, Singapore, September 2002, pp. 353-358. (Abhishek Pal, Atakan Dogan, Füsun Özgüner, and Ümit Özgüner)

242. "An adaptive motion correspondence algorithm for multiple vehicle tracking from an air-borne platform", Proceedings of IEEE conference on Intelligent Transportation Systems, Singapore, September 2002, pp.49-54. (Zhijun Tang and Umit Ozguner)

243. Kasnakoglu, C.; Ozguner, U.; "Recent advances on the OSU virtual environment system test-bed and its applications," Intelligent Vehicles Symposium, 2003. Proceedings. IEEE, June 9-11, 2003, Page(s): 537 - 542.

244. Acarman, T.; Kasnakoglu, C.; Yaodong Pan; Ozguner, U.; "Control authority transition system, half-car platform, vehicular simulator and dynamic switching analysis between the human being and driver assistance system," Intelligent Vehicles Symposium, 2003. Proceedings. IEEE , June 9-11, 2003, Page(s): 298 -303.

245. Yu, H.; Ozguner, U.; "Smooth Extremum-Seeking control via second order sliding mode", Proceedings of the 2003 American Control Conference, pp 3248-3253, Denver, Colorado, June 2003

246. Yu, H.; Ozguner, U.; "Heavy truck trajectory matching and simulation with VDANL", Proceedings of the 2003 American Control Conference, pp 4693-4698, Denver, Colorado, June 2003

247. Yiting Liu, Umit Ozguner, "A quantitative study on traffic network throughput", Proceedings IEEE ITSC2003, Shanghai, October 12-15,2003

248. Yiting Liu, Umit Ozguner, "Inter-Vehicles Communication Effects on Rear-end Collision avoidance", Intelligent Vehicles Symposium, 2003. Proceedings. IEEE , June 9-11, 2003 Page(s): 168 -173

249. Lu Xu, Umit Ozguner, "Battle Management for Unmanned Aerial Vehicles," Proc. 42nd IEEE Conference on Decision and Control, Hawaii, USA, Dec. 9-12, 2003.

250. Qi Chen, Umit Ozguner, "Title: A Hybrid System Model and Overlapping Decomposition for Vehicle Flight Formation Control," Proc. 42nd IEEE Conference on Decision and Control, Hawaii, USA, Dec. 9-12, 2003.

251. Z. Tang and U. Ozguner, "Sensor Fusion for Target Track Maintenance with Multiple UAVs Based on Bayesian Filtering Method and Hospitability Map", Proc. IEEE 42th Conference on Decision and Control, Hawaii, USA, Dec. 9-12, 2003.

252. "Hierarchical Task Distribution for Decentralized Subsystem with Centralized Output" Lu Xu, Umit Ozguner IEEE Conference on Decision and Control 2004.

253. "Evaluation on Intersection Collision Warning System Using Inter-vehicle Communication Simulator", Atakan Dogan, Gokhan Korkmaz, Yiting Liu, Fusun Ozguner, Umit Ozguner, Keith Redmill, Oscar Takeshita, Intelligent Transportation Systems, 2004. Proceedings. 2004 IEEE, Oct. 2004, Washington, D.C., USA, Pages: 1103-1108

254. "Control System Architecture for TerraMax: The off-road intelligent navigator", H. Yu, Q. Chen and U. Ozguner, 5th IFAC/EURON Symposium on Intelligent Autonomous Vehicles, Instituto Superior Técnico, Lisboa, Portugal, July 5-7, 2004.

255. "A Simulation Study of An Intersection Collision Warning System", F. Ozguner, U. Ozguner, O. Takeshita, K. Redmill, Y. Liu, G. Korkmaz, A. Dogan, K. Tokuda, S. Nakabayashi, T.Shimizu, International workshop on ITS Telecommunications, Proceedings, June 2004, Singapore

256. U. Ozguner, K. Redmill, A. Broggi, "Team TerraMax and the DARPA Grand Challenge: A General Overview," Proc. IEEE Intelligent Vehicles Symposium, Parma, June 2004.

257. Ü. Oğraş, O. Dağci, Ü. Özgüner, "Cooperative Control of Mobile Robots for Target Search," ICM 2004 - Istanbul, Turkey - June 3-5, 2004.

258. G. Korkmaz, E. Ekici, F. Ozguner, U. Ozguner, "Urban Multi-Hop Broadcast Protocol for Inter-Vehicle Communication Systems," VANET 2004, Boston.

259. U. Ozguner, "Safety related Human Interface Issues," ICAT 2004, Istanbul, November 2004.

260. Z. Kassas*, U. Ozguner, J. Layne, "Out-of-surveillance Target State Estimation: A Combined Hospitability and Synthetic Inclination Approach," 43rd IEEE CDC, December 2004, Bahamas.

261. S. Waun*, U. Ozguner, "A Coordination Strategy for Cooperative Sensor Network Deception by Autonomous Vehicle Teams," 43rd IEEE CDC, December 2004, Bahamas.

262. Y. Liu, U. Ozguner, and E. Ekici, "Performance evaluation of intersection warning system using a vehicle traffic and wireless simulator," in Proceedings of IEEE Intelligent Vehicles Symposium, Las Vegas, USA, 2005, pp.171-176.

263. Y. Liu and U. Ozguner, "Merging control algorithm for vehicles with inter-vehicle communications," Vehicle-to-Vehicle Communications Workshop, San Diego, USA, July 21st, 2005 (CD).

264. Avila, G. Korkmaz, Y. Liu, H. Teh, E. Ekici, F. Ozguner, U. Ozguner, K. Redmill, O. Takeshita, K. Tokuda, M. Hamaguchi, S. Nakabayashi, and H. Tsutsui, "A complete simulator architecture for inter-vehicle Communication Based Intersection Warning Systems,"in Proceedings of IEEE Conference on Intelligent Transportation Systems, Vienna, Austria, 2005, pp. 461-466.

265. T. Acarman, Y. Liu and U. Ozguner, "Stop-and-Go Driver assist system," in First Autocom Workshop on Preventive and Active Safety System for Road Vehicles, Istanbul Technical University, September 19-21, 2005

266. Qi Chen and Umit Ozguner, "Real-time navigation for autonomous vehicles: a fuzzy obstacle avoidance and goal approach algorithm", in American Control Conference, June 2005 Page(s):2153 - 2158 vol. 3

267. R. Xu and U. Ozguner, "Extremum seeking control via sliding mode with two sliding surfaces", Preprints of the 16th IFAC world congress, Prague, July 4-8, 2005.

268. Hai Yu and U. Ozguner, "Adaptive Tracking Control Via Extremum Seeking Method," Preprints of the 16th IFAC world congress, Prague, July 4-8, 2005.

269. Hai Yu, Levent Guvenc and U. Ozguner, "Heavy Duty Vehicle Rollover Detection Active Roll Control," Preprints of the 16th IFAC world congress, Prague, July 4-8, 2005.

270. Z. Xiang and U. Ozguner, "A 3D positioning system for off-road autonomous vehicles," IEEE Intelligent Vehicles Symposium, 2005. Proceedings. 6-8 June 2005, pp.130 – 135

271. Z. Xiang and U Ozguner, "Environmental Perception and Multi-sensor Data Fusion for Off-road Autonomous Vehicles," in Proceedings of IEEE Conference on Intelligent Transportation Systems, Vienna, Austria, 2005, pp. 461-466.

272. T. Acarman, Y. Liu, U. Ozguner, "Intelligent Cruise Control, Stop and Go with and without Communication". Proceedings of the American Control Conference, Minnesota, June 14-16, 2006, pp 4356-4361

273. Y. Liu, U. Ozguner, "Modeling Vehicle Operations with Wireless Communication Using Hybrid System", Proceedings of the ITS Telecommunications, Chengdu, China, 2006, pp1122-1127

274. T. Acarman and U. Ozguner, "Sliding Mode Servomechanism Design", IEEE Proceedings of The International Conference on Control Applications, Munich, Germany, October 4-6, 2006, pp.1002-1007 .

275. Y. Zheng, and U. Ozguner, "Modelling of Grouped Vehicles within a Cellular Spatial Structure", Proceedings of American Control Conference, 2006, pp. 4951-4956.

276. Y. Zheng, and U. Ozguner, "Path Routing with Switch-Back Avoidance for Autonomous Vehicles", Proceedings of Conference on Decision and Control, December 2006.

277. Rong Xu and Umit Ozguner, "Optimal sliding mode control for linear systems", Proceedings of the 9th International Workshop on Variable Structure Systems, pp. 143-148, June, 2006.

278. Rong Xu and Umit Ozguner, "Sliding mode control of a quadrotor helicopter", Proceedings of the 45th IEEE Conference on Control and Decision, pp. 4957-4962, December, 2006.

279. S. Jwa, Z. Tang, and U. Ozguner, "Robust Data Alignment Based on Information Theory and Its Applications in Road Following Situation," IEEE International Conference on Intelligent Transportation Systems, Toronto, September 2006.

280. Zhijun Tang, Umit Ozguner, "On non-escape search for a moving target by multiple mobile sensor agents", American Control Conference, June 2006.

281. Zhijun Tang, Umit Ozguner, "PF-HMap: A target track maintenance approach for mobile sensor platforms with intermittent and regional measurements", Proc. 45th IEEE Conference on Decision and Control, San Diego, Dec. 2006.

282. C. Toth, E. Paska, Qi Chen; Yongjie Zhu; Redmill, K.; Ozguner, U.; "Mapping Support for the OSU DARPA Grand Challenge Vehicle" Intelligent Transportation Systems, 2006. Proceedings. 2006 IEEE, Sept. 17-20, 2006 Page(s):1580 - 1585

283. K. Redmill, J. I. Martin, U. Ozguner, "Sensing and Sensor Fusion for the 2005 Desert Buckeyes DARPA Grand Challenge Offroad Autonomous Vehicle", Intelligent Vehicles Symposium, 2006 IEEE, 13-15 June 2006 Page(s):528 - 533

284. Keith Redmill, Umit Ozguner, "A Multimodal Testbed for Intelligent Vehicles and Cooperative Control", Proc. of Multiagent Autonomous Systems, 6th NDIA Intelligent Vehicle Systems Symposium, 13-15 June 2006, Traverse City, Michigan

285. T. Acarman, U. Ozguner, L. Guvenc, Y. Liu, S. Danis, "Test-Bed Formation for Human Driver Model Development and Decision Making," Proc. IEEE ITSC 2007, 934-939, Seattle WA, USA,

286. Y. Zhu, U. Ozguner, "Investigation of ION and a Heavy Truck on Rollover Propensity and Prevention," ACC, 2007, 1630-1635, New York, NY, USA, July 2007.

287. Y. Liu, U. Ozguner, "Human Driver Model and Driver Decision Making for Intersection Driving," Proc. IV'2007, 642-647, Istanbul, Turkey, pp. 642-647.

288. S. Jwa, U. Ozguner, "Multi-UAV Sensing Over Urban Areas via Layered Data Fusion," Proc. Statistical Signal Processing, 2007. SSP'07. IEEE/SP 14th Workshop Aug. 2007 576-580, Madison, WI, USA. Page(s):576 – 580.

289. C. Toth, D. Grejner-Brzezinska and U. Ozguner, "From the DARPA Grand to Urban Challenge: Mobile Mapping Supporting Autonomous Vehicle Navigation," Proceedings of ION National Technical Meeting, 22-24 January 2007, San Diego, CA, pp.1196-1200.

290. C. Toth, U. Ozguner and D. Grejner-Brzezinska, "Moving Toward Real-Time Mobile Mapping: Autonomous Vehicle Navigation," Proc. 5th Int. Symp. On Mobile Mapping Technology, Padua, Italy, May 2007.

291. Y. Zhu and Ü. Özgüner, "Constrained model predictive control for non-holonomic vehicle regulation problem," Proceedings of the 17th IFAC World Congress, 9552-9557, Seoul, Korea, July 2008.

292. Kurt, A. and Özgüner, Ü (2008). Hybrid State System Development for Autonomous Vehicle Control in Urban Scenarios. In C. Myung Jin and M. Pradeep (Ed.) *Proceedings of the 17th World Congress The International Federation of Automatic Control* (pp. 9540-9545). Seoul, Korea.

293. L. Fu and U. Ozguner, "Sliding mode in constrained source tracking with non-holonomic vehicles," VSS '08. International Workshop on Variable Structure Systems, Antalya, Turkey, June 2008, pp. 30-34.

294. Lina Fu, Yazici, A. Ozguner, U. "Route planning for OSU-ACT autonomous vehicle in DARPA Urban Challenge," 2008 IEEE Intelligent Vehicles Symposium, (IV2008), Eindhoven, June 2008, pp. 781-786.

295. A. Yazici, Ozguner U., Seo G., "A Model Predictive Control Approach for Decentralized Traffic Signal Control, 17th World Congress of International Federation of Automatic Control (IFAC), Seoul, Korea, pp.13058-13063 July 6-11, 2008.

296. L. Fu, Yazici A., Ozguner U., "Route Planning For OSU-ACT Autonomous Vehicle in DARPA Urban Challenge," 2008 IEEE Intelligent Vehicles Symposium (IV 2008), Eindhoven, The Netherlands, pg.781-786, June 4-6, 2008.

297. U. Ozguner, K. Redmill, S. Biddlestone, Hsieh, M.F., Yazici, A., Toth, C., "Simulation and Testing Environments for the DARPA Urban Challenge," IEEE International Conference on Vehicular Electronics and Safety (ICVES), Columbus, USA, September 22-24, pp. 222 - 226, 2008.

298. G. Seo, Yazici A., Ozguner U., Cho J., An approach for data collection and Traffic Signal Control in the futuristic city," 10th International Conference on Advanced Communication Technology, ICACT 2008, pp.667-672, 2008.

299. M. F. Hsieh and U. Ozguner, "A Parking Algorithm for an Autonomous Vehicle", IEEE 2008 Intelligent Vehicles Symposium, (IV 2008), Eindhoven, June 2008 Page(s):1155 – 1160.

300. M. F. Hsieh and U. Ozguner, "A Path Following Control Algorithm for Urban Driving", Vehicular Electronics and Safety, 2008 ICVES, 2008, Page(s):227– 231.

301. K. Streib, Ozguner, U., Martin, J., Mochizuki, Y., Ishikawa, K., ``A Sensor Based Assessment of Imminent Collisions at Right Angle Intersections," Proc. of 2008 IEEE International Conference on Vehicular Electronics and Safety (ICVES), Columbus, OH, September 22-24, 2008.

302. U. Ozguner, K. Redmill, S. Biddlestone, M-F. Hsieh, A. Yazici, C. Toth, "Simulation and testing environments for the DARPA Urban Challenge," Vehicular Electronics and Safety, ICVES 2008. IEEE International Conference on pp.222-226, 22-24 Sept. 2008.

303. Keith A. Redmill, Umit Ozguner, Scott Biddlestone, Alex Hsieh, John Martin, "Ohio State University Experiences at the DARPA Challenges", SAE Commercial Vehicle Engineering Congress & Exhibition, October
2008, Chicago, IL, USA, Session: Autonomous/Robotic Vehicles.

304. S. Jwa and Ü. Özgüner, "Problems in Data Registration for Persistent Sensing," SPIE Defense & Security, March 16-20, Orlando, FL, 2008.

305. B. Jarupan, Y. Balcioglu, E. Ekici, F. Ozguner, U. Ozguner, "An Integrated Wireless Intersection Simulator for collision warning systems in vehicular networks," IEEE International Conference on Vehicular Electronics and Safety, ICVES 2008, 22-24 Sept. 2008 Page(s):340 – 345.

306. U. Ozguner, "A history of AHS at OSU and future progress," IEEE International Conference on Vehicular Electronics and Safety, 2008. ICVES 2008. Sept. 2008 Page(s):13 – 15.

307. L. Fu* and U. Ozguner, "Variable structure extremum seeking control based on sliding mode gradient estimation for a class of nonlinear systems," Proc.: American Control Conference, 2009. ACC '09., 10-12 June 2009, , pp.: 8 – 13, St. Louis, MO

308. K. A. Redmill*, J. I. Martin*, and U. Ozguner, "Aerial image registration incorporating GPS/IMU data," Proc. SPIE, Vol. 7347, April 2009, Orlando, FL, USA.

309. Y. Shen, U. Ozguner, K. Redmill*, and J. Liu, "A robust video based traffic light detection algorithm for intelligent vehicles," 2009 Intelligent Vehicles Symposium, 3-5 June 2009, pp.: 521-526, Xi'an.

310. Y. Zhu* and U. Ozguner, "Robustness Analysis on Constrained Model Predictive Control for Nonholonomic Vehicle Regulation," 2009 American Control Conference, St. Louis, MO, USA, June 10-12, 2009.

311. S. Biddlestone*, A. Kurt*, M. Vernier*, K. Redmill* and Ü. Özgüner, "An Indoor Intelligent Transportation Testbed for Urban Traffic Scenarios," Proc. IEEE ITS Conference, St. Louis, pp. 1-6, Oct. 2009.

312. A. Kurt, Yester, J.L., Mochizuki, Y., Ozguner, U., "Hybrid-state driver/vehicle modelling, estimation and prediction," Intelligent Transportation Systems (ITSC), 2010 13th International IEEE Conference on Madeira, Portugal, September 2010, pp. 806 - 811.

313. U. Ozguner, "How to Drive When All Those Humans Are Trying To Use the Road too," Proceedings NATO Advanced Study Institute on Advanced All-Terrain Autonomous Vehicles, August 15-24, 2010, Izmir, Turkey.

314. Erdener, E. O. Ari, Y. Ataseven, B. Deniz, K. G. Ince, U. Kazancioglu T. Kopanoglu, T. Koray, K. M. Kosaner, A. Ozgur, C. CakiciI-Ozkok, T. Songul, H. O. Sirin, I. Yakin, S. Biddlestone, L. Fu, A. Kurt, U. Ozguner, K. Redmill, O. Aytekin, I. Ulusoy ,"Team Cappadocia Design for MAGIC 2010", 2010 Land Warfare Conference, Brisbane, Australia, 15-19 November 2010.

315. U. Ozguner, Krishnamurthy, A., Ozguner, F., Redmill, K., Sivilotti, P.A.G., Weide, B.W., "CPS: Autonomous Driving in Urban Environments" presented at National Science Foundation Cyber-Physical Systems PI Meeting, Arlington, VA, U.S.A., August 2010.

316. U. Ozguner, Krishnamurthy, A., Ozguner, F., Redmill, K., Sivilotti P.A.G., Weide, B.W., "Teaching CPS Design Issues at Different Levels starting with a Two-Week CPS Educational Program for Ohio High School Students," presented at National Science Foundation Cyber-Physical Systems Education Workshop, Arlington, VA, U.S.A., August 2010.

317. Lina Fu, Umit Ozguner, Pinak Tulpule and Vincenzo Marano, 'Real-time energy management and sensitivity study for hybrid electric vehicles," 2011 American Control Conference, pp.2113-2118, Jun 2011, San Francisco, CA.

318. Lina Fu, Umit Ozguner and Ibrahim Haskara, "Automotive Applications of Sliding Mode Control," Proc. the 18th IFAC World Congress, Vol. 18, No. 1, pp. 1898-1903, Sept 2011, Milano, Italy.

319. E. Adamey and U. Ozguner, "Cooperative multitarget tracking and surveillance with mobile sensing agents: A decentralized approach," in 2011 14th International IEEE Conference on Intelligent Transportation Systems (ITSC), Oct. 2011, pp. 1916-1922.

320. Gadepally, V., Kurt, A., Krishnamurthy, A., Ozguner, U. "Driver/Vehicle State Estimation andDetection", the Proceedings of the 14th International IEEE Conference on Intelligent TransportationSystems, ITSC 2011, October 2011, Washington, D.C. USA.

321. Kurt, A., Ozguner, U. "A Probabilistic Model of a Set of Driving Decisions", the Proceedings of the 14th International IEEE Conference on Intelligent Transportation Systems, ITSC 2011, October2011, Washington, D.C. USA.

322. Kurt, A., Ozguner, U. "Virtual Environments for Testing Complex Cyber-Physical Systems", The Proceedings of the Special International Conference on Complex Systems: Synergy of Control,Computing & Communications, COSY 2011, September 2011, Ohrid, Macedonia.

323. Biddlestone, S.; Redmill, K.; Ozguner, U.; , "Coordination of ad-hoc groups formed in urban environments," *Intelligent Transportation Systems (ITSC), 2011 14th International IEEE Conference on* , vol., no., pp.248-253, 5-7 Oct. 2011.

324. M. A. Vernier and U. Ozguner, "Virtual Sensor System: Merging the Real World with a Simulation Environment," in Proceedings of the 14th International IEEE Annual Conference on Intelligent Transportation Systems, Washington DC, 2011.

325. Hashimoto, N.; Ozguner, U. and Sawant, N.; "Evaluation of control in a convoy scenario," Proc. 2011 IEEE Intelligent Vehicles Symposium (IV), 5-9 June 2011, Baden-Baden, pp. 350 – 355.

326. Hashimoto, Naohisa; Ozguner, Umit; Yokozuka, Masashi; Kato, Shin; Matsumoto, Osamu and Tsugawa, Sadayuki, "A Framework of Fault Detection Algorithm for Intelligent Vehicle by Using Real Experimental

Data," the Proceedings of the 14th International IEEE Conference on Intelligent Transportation Systems, ITSC 2011, October2011, Washington, D.C. USA.

327. Umit Ozguner, and Keith A. Redmill, Cyber-Physical Systems Cooperative Vehicle Demonstration: Phase I," 2011 IEEE Vehicular Networking Conference (VNC): Demo Summaries Document, U. of Twente, June 2011.

328. Kurt, A., Ozguner, U. "Scalability in Urban Autonomy Through Overlapping Decompositions of Hybrid-State Systems," the *Proceedings of Intelligent Transportation Systems* (ITSC), 2012 15th International IEEE Conference on, pp. 1602-1607, IEEE, September 2012, Alaska, USA.

329. Kurt, A., Biddlestone, S., Redmill, R., Ozguner, U. "Hierarchical Hybrid-State Systems for Coordinated Autonomous Driving in Mixed-Traffic Urban Environments," Poster presented at: *Third International Conference on Cyber-Physical Systems* (ICCPS), April 2012, Beijing, China.

330. Wollaeger, J., Kumar, S. A., Onori, S., Filev, D., Ozguner, U., Rizzoni, G., & Di Cairano, S. "Cloud-computing based velocity profile generation for minimum fuel consumption: A dynamic programming based solution," In *American Control Conference (ACC),* June 2012 (pp. 2108-2113). IEEE.

331. Adamey, E., Basciftci, Y. O., Gong, P., Kurt, A., Ozguner, F., Ozguner, U. "State Estimation and Sensor Fusion for Autonomous Driving in Mixed-Traffic Urban Environments," Poster presented at: *Third International Conference on Cyber-Physical Systems* (ICCPS), April 2012, Beijing, China.

332. Adamey, E., Kurt, A., Ozguner, U. "Cyber-Physical Systems: Autonomous Driving in Mixed-Traffic Urban Environments" Poster presented at: *TASSA 2012 Annual Conference*, March 2012, Maryland, USA.

333. Adamey, E., Ozguner, U. "A decentralized approach for multi-UAV multitarget tracking and surveillance." *SPIE Defense, Security, and Sensing* 2012.

334. Akgun, T., Koc, Z., Guner, S., Ozturk, B., Ozkan, B., Ustun, O., Tuncay, N., Ozguner, U., "A study on autonomous vehicle development process at Okan University," *Vehicular Electronics and Safety (ICVES), 2012 IEEE International Conference on*, vol., no., pp.369-374, 24-27 July 2012

335. Khayyer, P., Wollaeger, J., Onori, S., Marano, V., Özgüner, U. and Rizzoni, G., "Analysis of Impact Factors for Plug-in Hybrid Electric Vehicles Energy Management," *IEEE Intelligent Transportation Systems Conference* (ITSC 2012), Anchorage, AK, 16-19 September 2012.

336. Khayyer, P., Wollaeger, J., Tulpule, P., Fu, L., Marano, V., Onori, S., Özgüner, U. and Rizzoni, G. "PHEV Energy Management Impact Factor," 2012 *University Clean Energy Alliance of Ohio (UCEAO) Conference*, April 2-3, 2012, Columbus, OH.

337. Park, J. and Özgüner, U. "Model Based Controller Synthesis using Reachability Analysis that Guarantees the Safety of Autonomous Vehicles in a Convoy," Proc. of the 2012 *IEEE International Conference on Vehicular Electronics and Safety*, pp. 134-139, July 24-27 2012, Istanbul, Turkey.

338. Ozatay, E., Ozguner, U., Onori, S., Rizzoni, G., "Analytical Solution to the Minimum Fuel Consumption Optimization Problem with the Existence of a Traffic Light", *5th Dynamic Systems and Control Conference and 11th Motion and Vibration Conference*, Sep. 2012, Ft. Lauderdale, FL, USA.