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Professor Yu has worked extensively with Industry. He was on the Board of Governors of the Australian Photonics Cooperative Research Centre (CRC) (2003-2006) and a member of the Science Advisory Committee of the Advanced Manufacturing CRC (2008-2013).

Professor Yu's research interests include variable structure and nonlinear control, complex and intelligent systems, and industrial information technologies. He has published over 500 refereed papers in technical journals, books and conference proceedings. In 2015, He was named a Highly Cited Researcher by Thomson Reuters, ranking him top 1% researchers in his field and year of publication. Professor Yu received a number of awards for his contributions, including the 2013 Dr.-Ing. Eugene Mittelmann Achievement Award of IEEE Industrial Electronics Society, the 2012 IEEE Industrial Electronics Magazine Best Paper Award, and a Chang Jiang Scholar (Chair Professor) Award from the Ministry of Education, China in 2009. He is serving/served as an Associate Editor of IEEE Transactions on Automatic Control, IEEE Transactions on Circuits and Systems Part I: Regular Papers, IEEE Transactions on Industrial Informatics, IEEE Transactions on Industrial Electronics, and several other scholarly journals.

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PUBLICATION LIST (Xinghuo Yu)

Books

- 1. J. Lu, **X. Yu**, G. Chen, and W. Yu, Complex Systems and Networks: Dynamics, Controls and Applications, Understanding Complex Systems, Springer, 2015.
- 2. **X. Yu** and O. Efe (Editors), Recent Advances in Sliding Modes: From Control to Intelligent Mechatronics, Studies in Systems, Decision and Control, vol. 24, Springer, 2015.
- 3. S. Marshall, W. Taylor, and **X. Yu** (Editors), Encyclopedia of Developing Regional Communities with Information and Communication Technology, Idea Publishing Group, 2005.
- 4. G. Webb and **X. Yu** (Editors), AI 2004: Advanced in Artificial Intelligence, Proceedings of 17th Australian Joint Conference on AI, Lecture Notes in Artificial Intelligence, vol. 3339, 2004.
- 5. **X. Yu** and J. Kacprzyk (Editors), Applied Decision Support with Soft Computing, Studies in Fuzziness and Soft Computing, vol. 124, Springer, 2003.
- 6. S. Marshall, W. Taylor, and **X. Yu** (Editors), Using Community Informatics to Transform Regions, Idea Publishing Group, 2003.
- 7. G. Chen and **X. Yu** (Editors), Chaos Control: Theory and Applications, Lecture Notes in Control and Information Sciences, vol. 292, Springer, 2003.
- 8. G. Chen, D. J. Hill, and **X. Yu** (Editors), Bifurcation Control: Theory and Applications, Lecture Notes in Control and Information Sciences, vol. 293, Springer, 2003.
- 9. S. Marshall, W. Taylor, and **X. Yu** (Editors), Closing the Digital Divide: Transform Regional Economy and Industry using Information Technology, Greenwood Publishing, 2003.
- 10. **X. Yu** and J.-X. Xu, (Editors), Variable Structure Systems: Towards the 21st Century, Lecture Notes in Control and Information Sciences, vol. 274, Springer, 2002.
- 11. **X. Yu** and J.-X. Xu, (Editors), Advances in Variable Structure Systems: Analysis, Integration and Applications, Proceedings of 6th International Workshop on Variable Structure Systems, World Scientific, November 2000.
- 12. R.J. Stonier and **X. Yu** (Editors), Complex Systems: Mechanism of Adaptation, IOS Press Amsterdam and Ohmsha Tokyo, September 1994.

Book Chapters

- 1. H. Du, **X. Yu**, and S. Li, "Dynamic behaviors of discrete-time terminal sliding mode control systems," in Recent Advances in Sliding Modes: From Control to Intelligent Mechatronics, X. Yu and O. Efe (Eds), Studies in Systems, Decision and Control, vol. 24, pp. 77-98, Springer, 2015.
- 2. Y. Feng, **X. Yu**, and F. Han, "On digitization of variable structure control for permanent magnet synchronous motors," in AC Electric Motors Control: Advanced Design Techniques and Applications, F. Giri (Ed), ch. 18, John Wiley & Sons, UK, 2013
- 3. Y. Yan and **X. Yu**, "Quantization behaviours on equivalent control based sliding mode control systems," in Advances in Sliding Mode Control, B. Bandyopadhyay, S. Janardhanan, S. K. Spurgeon (Eds), Lecture Notes on Control and Information Sciences, vol. 440, pp. 221-241, 2013.
- 4. Z. Man, S. Khoo, **X. Yu**, J. Jin, and F. Tay, "A new design of sliding mode control systems," Sliding Modes after the first decade of the 21st Century, L. Fridman et al (Eds), vol. 412, pp. 151-167, Springer, 2011.
- 5. Z. Galias and **X. Yu**, "On Euler's discretisation of sliding mode control systems with relative degree restrictions," Modern Sliding Mode Control Theory: New Perspective and Applications, G. Bartolini, L. Fridman, A. Pisano and E. Usai (Eds), vol. 375, vol. pp. 119-236, Springer, 2008.
- 6. Y. Feng and **X. Yu**, "Sliding mode control for chaotic systems," in Control of Chaos in Nonlinear Circuits and Systems, B. W.-K. Ling, H. H.-C. Iu, and H.-K. Lam (Eds), Series on Nonlinear Sciences, Series A, vol. 64, pp. 55-78, World Scientific, 2008.
- 7. **X. Yu** and G. Chen, "Sliding mode control and chaos," in Variable Structure Systems: From Principles to Implementation, A. Sabanovic, L. Fridman, S. Spurgeon (Eds), vol. 66, pp. 219-242, IEE Press, 2004.

- 8. A. Chiou and **X. Yu**, "P-Expert: Implementation and deployment of large scale fuzzy expert advisory system," in Classification and Clustering for Knowledge Discovery, S. K. Halgamuge and L. Wang (Eds), Studies in Computational Intelligence, vol. 4, 159-173, Springer, 2005.
- 9. A. Chiou and **X. Yu**, "Thematic fuzzy prediction of weed dispersal using spatial dataset," in Computational Intelligence for Modelling and Predictions, S. K. Halgamuge and L. Wang (Eds), Studies in Computational Intelligence, vol. 2, 147-162, Springer, 2005.
- 10. Y.-P. Tian and **X. Yu**, "Time-delayed impulsive stabilization of unstable periodic orbits in chaotic hybrid systems," in Chaos Control: Theory and Applications, Lecture Notes in Control and Information Sciences, vol. 292, pp. 51-70, G. Chen and X. Yu (Eds), Springer, 2003
- 11. J.-Q. Fang, G. Chen, and **X. Yu**, "Formation mechanisms and control methods of beam halo-chaos in high-current ion linacs," in Chaos Control: Theory and Applications, Lecture Notes in Control and Information Sciences, vol. 292, pp. 205-246, G. Chen and X. Yu (Eds), Springer, 2003
- 12. A. Chiou and **X. Yu**, "Prediction of parthenium weed dispersal using fuzzy logic on GIS spatial image," in Applied Decision Support with Soft Computing, Studies in Fuzziness and Soft Computing, X. Yu and J. Kacprzyk (Eds), vol. 124, pp. 402-418, Springer, 2003.
- 13. B. Wu and **X. Yu**, "Evolving agents for global optimization," in Optimization and Industry: New Frontiers, P. Pardalos and V. Korotkich (Eds), pp. 281-292, Applied Optimization, vol. 78, Kluwer Academic, 2003.
- 14. A. Chiou, **X. Yu**, and K. Adsett, "P-Expert Project: Development of a prototype expert system for control and management of parthenium weed in Central Queensland," in Closing the Digital Divide: Transforming Regional Economies and Communities with Information Technology, S. Marshall, W. Taylor and **X. Yu** (Eds), pp. 153-166, Greenwood Publishing, 2003.
- 15. **X. Yu** and Z. Man, "Variable structure systems with terminal sliding modes," in Variable Structure Systems: Towards the 21st Century, Lecture Notes in Control and Information Sciences, G. Chen and X. Yu (Eds), vol. 274, pp.109-128, Springer, 2002.
- 16. M. O. Efe, O. Kaynak, and **X. Yu**, "Variable structure systems theory in computational intelligence," in Variable Structure Systems: Towards the 21st Century, Lecture Notes in Control and Information Sciences, X. Yu and J.-X. Xu (Eds), vol. 274, pp.365-390, Springer, 2002.
- 17. Y. Feng, F. Han, **X. Yu**, D. Stonier, and Z. Man, "Tracking precision analysis of terminal sliding mode control systems with saturation functions," in Advances in Variable Structure Systems: Analysis, Integration and Applications, X. Yu and J.X. Xu (Eds), pp. 325-334, World Scientific, 2000
- 18. S. Chong, **X. Yu**, and Z. Man, "Robust terminal sliding mode control of a flexible robot arm," in Advances in Variable Structure Systems: Analysis, Integration and Applications, **X. Yu** and J.X. Xu (Eds), pp. 500-508, World Scientific, 2000.
- 19. S. Yu, **X. Yu**, and W. Qiang, "Time delayed discrete variable structure control with quasi sliding modes," in Advances in Variable Structure Systems: Analysis, Integration and Applications, **X. Yu** and J.X. Xu (Eds), pp. 84-92, World Scientific, 2000.
- 20. S. Gregor and **X. Yu**, "Exploring explanatory capabilities of intelligent systems technologies," in Fuzzy Logic in the New Millennium, V. Dimitrov and V. Korotkich (Eds), pp. 288-300, Springer, 2001.
- 21. S. Yu, **X. Yu**, and Z. Man, "Indirect adaptive fuzzy control of nonlinear systems with terminal sliding modes," in Fuzzy Logic in the New Millennium, V. Dimitrov and V. Korotkich (Eds), pp. 263-276, Springer, 2001.
- 22. A. Chiou, **X. Yu**, and J. Lowry, "Prototype application of fuzzy advisory expert in management and control of parthenium weed in Fitzroy basin at Central Queensland," in Fuzzy Logic in the New Millennium, V. Dimitrov and V. Korotkich (Eds), pp. 311-325, Springer, 2001.
- 23. M. Rahman, **X. Yu**, and B. Srinivasan, "A neural networks based approach for fast mining characteristic rules," in Lecture Notes in Artificial Intelligence AI'99, pp. 36-47, N. Foo (Ed), Sydney, December 1999.
- 24. **X. Yu**, Y. Wu, and Z. Man, "On global stabilisation of nonlinear dynamical systems," in Variable Structure Systems, Sliding Mode and Nonlinear Control, Lecture Notes in Control and Information Science, D. Young and U. Ozguner (Eds), vol. 247, pp. 109-122, Springer, 1999.
- 25. **X. Yu**, G. Chen, and Y. Tian, "Time delayed feedback control of chaotic systems," in Controlling Chaos and Bifurcation in Engineering Systems, G. Chen (Ed), CRC Press, 1999.

- 26. S.M. Rahman, **X. Yu**, and Z. Man, "Feedforward neural networks with adaptive learning," in Complex Systems: From Local Interactions to Global Phenomena, R. Stocker, H. Jelinek, B. Durnota and T. Bossomaier (Eds), IOS Press, pp.214-219, 1996.
- 27. **X. Yu**, "Tracking periodic orbits in chaotic systems," in Complex Systems: From Local Interactions to Global Phenomena, R. Stocker, H. Jelinek, B. Durnota and T. Bossomaier (Eds), IOS Press, pp.107-112, 1996.
- 28. Z. Man, **X. Yu**, and N. Ritter, "A RBF neural network-based adaptive controller for robotic manipulators," in Artificial Intelligence AI'95, X. Yao (Ed), World Scientific, pp. 81-88, 1995.
- 29. F. Lin, **X. Yu**, S. Gregor, and R. Irons, "Time series forecasting with a neural network," in Complex Systems: Mechanism of Adaptation, R. Stonier and X. Yu (Eds), IOS Press, Amsterdam, pp.245-252, 1994.
- 30. **X. Yu**, "A perceptron adaptation algorithm for neural networks and its application," in Artificial Intelligence Al'94, C. Zhang, J. Debenham and D. Lukose (Eds), World Scientific, pp. 411-417, 1994
- 31. **X. Yu**, "Discretisation effect on a dynamical system with discontinuity," in Chaotic Numerics, P. Kloeden and K. Palmer (Eds.), Contemporary Mathematics, vol. 172, pp.269-277, American Mathematical Society, 1994.
- 32. **X. Yu**, "Digital variable structure control with pseudo-sliding modes," in Variable Structure and Lyapunov Control, A.S.I. Zinober (Ed), Springer, pp.103-129, 1993.

Journal Articles

- 1. G. Wen, W. Yu, Z. Li, **X. Yu**, and J. Cao, "Neuro-adaptive consensus tracking of multi-agent systems with a high-dimensional leader," IEEE Transactions on Cybernetics, accepted for publication, 16 April 2016.
- 2. Y. Orouskhani, M. Jalili, and **X. Yu**, "Optimizing dynamical network structure for pinning control," Scientific Reports, accepted for publication, 18 March 2016.
- 3. M. Jalili, **X. Yu**, "Enhancement of synchronizability in networks with community structure through adding efficient inter-community links," IEEE Transactions on Network Science and Engineering, accepted for publication, 14 March 2016.
- 4. X. Lu, Y. Wang, **X. Yu**, and J. Lai, "Finite-time control for robust tracking consensus in MASs with an uncertain leader," IEEE Transactions on Cybernetics, accepted for publication, 22 March 2016.
- 5. C. Li, **X. Yu**, W. Yu, and T. Huang, "Efficient computation for sparse load shifting in demand side management," IEEE Transactions on Smart Grid, accepted for publication, 7 January 2016.
- 6. H. Du, **X. Yu**, M. Z. Q. Chen, and S. Li, "Chattering-free discrete-time sliding mode control," Automatica, accepted for publication, 5 January 2016.
- 7. Q. Zhu, **X. Yu**, T. Zhang, Z. Cao, Y. Yang, and Y. Yi, "Sliding mode control of MIMO Markovian Jump Systems," Automatica, accepted for publication, 30 December 2015.
- 8. W. Sun, J. Lu, **X. Yu**, Y. Chen, and S. Chen, "Cooperation of multi-agent systems with unmatched parameters: a point view of power systems," IEEE Transactions on Circuits and Systems II, accepted for publication, 20 December 2015.
- 9. P. Wang, Y. Chen, J. Lu, Q. Wang, and **X. Yu**, "Graphical features of functional genes in human protein interaction network," IEEE Transactions on Biomedical Circuits and Systems, accepted for publication, 16 December 2015.
- 10. S. Wen, T. Huang, **X. Yu,** and Z. Zeng, "Aperiodic sampled-data sliding-mode control of fuzzy systems with communication delays via the event-triggered method," IEEE Transactions on Fuzzy Systems, accepted for publication, 23 October 2015.
- 11. X.-M. Zhang, Q.-L. Han, and **X. Yu**, "Survey on recent advances in networked control systems," IEEE Transactions on Industrial Informatics, accepted for publication, 23 October 2015.
- 12. Q. Zhu, **X. Yu**, T. Zhang, Z. Cao, Y. Yang, and Y. Yi, "The mean-square stability probability of Hinf control of Markovian Jump Systems," IEEE Transactions on Automatic Control, accepted for publication, September 2015.

- 13. G. Wen, M. Z. Q. Chen, and **X. Yu**, "Event-triggered master-slave synchronization with sampled-data communication," IEEE Transactions on Circuits and Systems II, accepted for publication, August 2015.
- 14. C. Li, **X. Yu**, T. Huang, X. He, and G. Chen, "A generalized Hopfield network for nonsmooth constrained convex optimization: Lie derivative approach", IEEE Transactions on Neural Networks and Learning Systems, accepted for publication, September 2015.
- 15. C. Li, **X. Yu**, W. Yu, T. Huang, and Z. Liu, "Distributed event-triggered scheme for economic dispatch in smart grids," IEEE Transactions on Industrial Informatics, accepted for publication, August 2015.
- 16. H. Du, G. Wen, **X. Yu**, S. Li, and M. Z. Q. Chen, "Finite-time consensus of multiple nonholonomic chained-form systems based on recursive distributed observer," Automatica, vol. 62, pp. 236-242, 2015.
- 17. Y. Yan, **X. Yu**, C. Sun, and S. Yu, "Quantization effect on ZOH discretization of multi-input sliding-mode control systems," IET Control Theory & Applications, vol. 9, no. 18, pp. 2613-2618, 2015.
- 18. D. Savage, X. Zhang, **X. Yu**, Q. Wang, and P. Chou, "Detection of opinion spam based on anomalous rating deviation," Expert Systems with Applications, vol. 41, no. 22, pp. 8650-8657, 2015.
- 19. G. Wen, W. Yu, G. Hu, J. Cao, and **X. Yu**, "Pinning synchronization of directed networks with switching topologies: A multiple Lyapunov functions approach," IEEE Transactions on Neural Networks and Learning Systems, vol. 26, no. 12, pp. 3239-3250, 2015.
- 20. Y. Yan, **X. Yu**, and C. Sun, "Quantization effect on sliding mode control of uncertain dynamical systems," Asian Journal of Control, in press, DOI: 10.1002/asjc.1173, May 2015.
- 21. W. Xiong, D. Ho, and **X. Yu**, "Saturated finite interval iterative learning for tracking of dynamic systems with HNN-structural output," IEEE Transactions on Neural Networks and Learning Systems, accepted for publication, May 2015.
- 22. D. Alahakoon and **X. Yu**, "Smart electricity meter data intelligence for future energy systems: A survey," IEEE Transactions on Industrial Informatics, vol. 12, no. 1, pp. 425-436, February 2016.
- 23. M. Jalili, O. A. Sichani, and **X. Yu**, "Optimal pinning controllability of complex networks: Dependence on network structure," Physical Review E, vol. 91, no. 1, 012803, 2015.
- 24. S. Wen, **X. Yu**, Z. Zeng, and J. Wang, "Event-triggering load frequency control for multi-area power systems with communication delays," IEEE Transactions on Industrial Electronics, accepted for publication, February 2015.
- 25. S. Wen, Z. Zeng, T. Huang, **X. Yu**, and M. Xiao, "New criteria of passivity analysis for fuzzy time-delay systems with parameter uncertainties," IEEE Transactions on Fuzzy Systems, accepted for publication, March 2015.
- 26. G. Wen, W. Yu, G. Hu, J. Cao, and **X. Yu**, "Pinning synchronization of directed networks with switching topologies: A multiple Lyapunov functions approach," IEEE Transactions on Neural Networks and Learning Systems, accepted for publication, January 2015.
- 27. M. Combariza-Pacheco, **X. Yu**, A. Mitchell, N. Warwick, and F. Tovar-Lopez, "Nonlinear dynamic modelling of platelet aggregation via microfluidic devices," IEEE Transactions on Biomedical Engineering, accepted for publication, January 2015.
- 28. W. Sun, **X. Yu**, J. Lu, and S. Chen, "Synchronization of coupled harmonic oscillators with random noises," Nonlinear Dynamics, vol. 79, no. 1, pp. 473-484, 2015.
- 29. W. Yu, J. Lu, **X. Yu**, and G. Chen, "Distributed adaptive control for synchronization in directed complex networks," SIAM Journal on Control and Optimization, vol. 53, no. 5, pp. 2980-3005, September 2015.
- 30. X. Liu, **X. Yu**, and H. Xi, "Finite-time synchronization of neutral complex networks with Markovian switching based on pinning controller," Neurocomputing, vol. 153, pp. 148-158, 2015.
- 31. X. Wang, S. John, S. Watkins, **X. Yu**, H. Xiao, X. Liang, and H. Wei, "Similarity and duality of electromagnetic and piezoelectric vibration energy harvesters," Mechanical Systems and Signal Processing, vol. 52, pp. 672-684, 2015.
- 32. P. Wang, J. Lu and **X. Yu**, "Colored noise induced bistable switch in the genetic toggle switch systems," IEEE/ACM Transactions on Computational Biology and Bioinformatics, vol. 12, no. 3, pp. 579-589, June 2015.

- 33. P. Wang, Y. Zhang, J. Lu, and **X. Yu**, "Functional characteristics of additional positive feedback in genetic circuits," Nonlinear Dynamics, vol. 79, no. 1, 397-408, 2015.
- 34. Y. Zhou, **X. Yu**, C. Sun, and W. Yu, "Higher-order finite-time consensus protocol for heterogeneous multi-agent systems," International Journal of Control, vol. 88, no. 2, pp. 285-294, 2015.
- 35. P. Wang, **X. Yu,** and J. Lu, "Duplication and divergence effect on network motifs in undirected bio-molecular networks," IEEE Transactions on Biomedical Circuits and Systems, vol. 9, no. 3, pp. 312-320, June 2015.
- 36. S. Li, H. Sun, J. Yang, and **X. Yu**, "Continuous finite-time output regulation for disturbed systems under mismatching condition," IEEE Transactions on Automatic Control, vol. 60, no. 1, pp. 277-282, 2015.
- 37. Y. Zhou, **X. Yu**, C. Sun, and W. Yu, "Robust synchronization of second-order multi-agent system via pinning control," IET Control Theory & Applications, vol. 9, no. 5, pp. 775-783, 2014.
- 38. G. Wen, W. Yu, M. Z. Q. Chen, **X. Yu**, and G. Chen, "Hinf pinning synchronization of directed networks with aperiodic sampled-data communications," IEEE Transactions on Circuits and Systems I: Regular Papers, vol. 61, no. 11, 3245-3255, November 2014.
- 39. S. Wen, Z. Zeng, T. Huang, and **X. Yu**, "Noise cancelation of memristive neural networks," Neural Networks, vol. 60, pp. 74-83, December 2014.
- 40. Q. Zhu, **X. Yu**, A. Song, S. Fei, Z. Cao, and Y. Yang, "On sliding mode control of single input Markovian jump systems," Automatica, vol. 50, no. 11, pp. 2897-2904, 2014.
- 41. P. Wang, J. Lu, and **X. Yu**, "Identification of important nodes in directed biological networks: A network motif approach," PLOS ONE, vol. 8, no. 8, doi:10.1371/journal.pone.0106132m, August 2014.
- 42. A. Almalawi, X. Yu, Z. Tari, A. Fahad, and I. Khalil, "An Unsupervised anomaly-based detection approach for integrity attack on SCADA systems," Computer & Security, vol. 36, pp. 94-110, October 2014.
- 43. D. Savage, X. Z. Zhang, **X. Yu**, Q. Wang, and P. Chou, "Anomaly detection in online social networks," Social Networks, vol. 39, pp. 62-70, 2014.
- 44. Q. Wang and **X. Yu**, "Ontology based automatic feature recognition framework", Computers in Industry, vol. 65, no. 7, pp. 1041-1052, September 2014.
- 45. W. Sun, J. Lu, S. Chen, and **X. Yu**, "Pinning impulsive algorithms for complex network," Chaos, vol. 24, no. 1, to appear, 2014.
- 46. W. Sun, J. Lu, S. Chen, and **X. Yu**, "Synchronization of directed coupled harmonic oscillators with sampled-data," IET Journal Control Theory & Applications, vol. 8, no. 11, pp. 937-947, 2014.
- 47. W. Yu, G. Wen, **X. Yu**, Z. Wu, and J. Lu, "Bridging the gap between complex networks and smart grids," Journal of Control and Decision, vol. 1, no. 1, pp. 102-144, 2014.
- 48. H. Li, Y. Liu, J. Lu, T. Zheng, and **X. Yu**, "Suppressing EMI in power converters via chaotic SPWM control based on spectrum analysis approach," IEEE Transactions on Industrial Electronics, vol. 61, no. 11, pp. 6128-6137, 2014.
- 49. P. Wang, **X. Yu,** and J. Lu, "Identification and evolution of structurally dominant nodes in protein-protein interaction networks," IEEE Transactions on Biomedical Circuits and Systems, vol. 8, no. 1, pp. 87-97, February 2014.
- 50. W. Yu, **X. Yu**, and J. Lu, "Pinning observability in complex networks," IET Journal of Control Theory & Applications, vol. 8, no. 18, pp. 2136-2144, July 2014.
- 51. Y. Feng, **X. Yu**, and F. Han, "Chattering free full-order sliding mode control," Automatica, vol. 50, no. 4, pp. 1310-1314, 2014.
- 52. B.-L. Zhang, Q. Han, X.-M. Zhang, and **X. Yu**, "Sliding mode control with mixed current and delayed states for offshore steel jacket platforms," IEEE Transactions on Control Systems Technology, vol. 22, no. 5, pp. 1769-1983, September 2014.
- 53. S. Li, H. Du, and **X. Yu**, "Discrete-time terminal sliding mode control systems based on Euler's discretization," IEEE Transactions on Automatic Control, vol. 59, no. 2, pp. 546-552, February 2014.
- 54. W. Xiong, W. Yu, J. Lu, and **X. Yu**, "Fuzzy Modelling and Consensus of Nonlinear Multiagent Systems With Variable Structure," IEEE Transactions on Circuits and Systems I: Regular Papers, vol. 61, no. 4, pp. 1183-1191, 2014.

- 55. J. Yang, S. Li, and **X. Yu**, "High-order mismatched disturbance compensation for motion control systems via a continuous dynamic sliding-mode approach," IEEE Transactions on Industrial Informatics, vol. 10, no. 1, pp. 604-614, 2014.
- 56. W. Yu, J. Lu. S. Chen, and **X. Yu**, "Synchronization of directed coupled harmonic oscillators with sampled-data," IET Journal of Control Theory & Applications, vol. 8, no. 11, pp. 937-947, July 2014.
- 57. S. Tan, J. Lu, **X. Yu**, and D. Hill, "Evolution and maintenance of cooperation via inheritance of neighbourhood relationship," China Science Bulletin, vol. 58, no. 28/29, pp. 3491-3498, 2013.
- 58. Y. Chen, J. Lu, **X. Yu**, and D. J. Hill, "Multi-agent systems with dynamical topologies: Consensus and applications," IEEE Circuits and Systems Magazine, vol. 13, no. 3, pp. 21-34, August 2013.
- 59. Y. Chen, J. Lu, **X. Yu**, and Z. Lin, "Consensus of discrete-time second order multi-agent systems based on infinite products of general stochastic matrices," SIAM Journal on Control and Optimization, vol. 51, no. 4, pp.3274-3301, 2013.
- 60. S. Khoo, J. Yin, Z. Man, and **X. Yu**, "Finite-time stabilization of stochastic nonlinear systems in strict-feedback form," Automatica, vol. 45, no. 5, pp. 1403-1410, 2013.
- 61. J. Yang, S. Li, J. Su, and **X. Yu**, "Continuous nonsingular terminal sliding mode control for systems with mismatched disturbances," Automatica, vol. 49, no. 7, 2287-2291, 2013.
- 62. W. Yu, L. Zhou, **X. Yu**, J. Lu, and R. Lu, "Consensus in multi-agent systems with second-order dynamics and sampled data," IEEE Transactions on Industrial Informatics, vol. 9, no. 4, pp. 2137-2146, November 2013.
- 63. Y. Feng, **X. Yu**, and F. Han, "On non-singular terminal sliding mode control of nonlinear systems," Automatica, vol. 49, no. 6, pp. 1715-1722, 2013.
- 64. S. Li, M. Zhou, and **X. Yu**, "Design and implementation of terminal sliding mode control method for PMSM speed regulation system," IEEE Transactions on Industrial Informatics, vol. 9, no. 4, pp. 1879-1891, 2013.
- 65. A. Levant, S. Li, and **X. Yu**, "Accuracy of some popular non-homogeneous 2-sliding modes," IEEE Transactions on Automatic Control, vol. 58, no. 10, pp. 2615-2619, 2013.
- 66. X. Li, **X. Yu**, and Q. Han, 'Stability analysis of second-order sliding mode control systems with input delay through Poincare map," IEEE Transactions on Automatic Control, vol. 58, no. 9, pp. 2410-2415, 2013.
- 67. L. Tang, J.-A. Lu, J. Lu, and **X. Yu**, "Bifurcation analysis of synchronized regions in complex dynamical networks," International Journal of Bifurcation and Chaos, vol. 22, no. 11, November 2012.
- 68. Y. Feng, **X. Yu**, and F. Han, "High-order terminal sliding-mode observer for parameter estimation of a permanent magnet synchronous motor," IEEE Transactions on Industrial Electronics, vol. 60, no. 10, pp. 4272-4280, 2013.
- 69. Y. Yan, **X. Yu**, and S. Yu, "Quantization effect on a second-order dynamical system under sliding mode control," International Journal of Bifurcation and Chaos, vol. 23, no. 8, August 2013.
- 70. J. Yang, S. Li, and **X. Yu**, "Sliding-mode control for systems with mismatched uncertainties via a disturbance observer," IEEE Transactions on Industrial Electronics, vol. 60, no. 1, pp. 160-169, 2013.
- 71. J. Zhu, J. Lu, and **X. Yu**, "Flocking of multi-agent non-holonomic systems with proximity graphs," IEEE Transactions on Circuits and Systems Part I Regular Papers, vol. 60, no.1, pp.199-210, January 2013.
- 72. Z. Xu, H. Wu, X. Yu, and B. Qiu, "Adaptive progressive filer o remove impulse noise in highly corrupted color images," Signal, Image and Video Processing, vol. 7, no. 5, pp. 817-831, 2013.
- 73. A. Dwivedi and **X. Yu**, "A maximum flow based complex network approach for power system vulnerability analysis," IEEE Transactions on Industrial Informatics, vol. 9, no. 1, pp. 81-88, January 2013.
- 74. W. Xu, G. Lei, T. Wang, **X. Yu**, J. Zhu, and Y. Guo, "Theoretical research in new laminated structure flux switching permanent magnet machine for novel topologic plug-in hybrid electrical vehicle," IEEE Transactions on Magnetics, vol. 48, no.11, pp. 4050-4053, 2012.
- 75. Z. Galias and **X. Yu**, "Dynamical behaviors of discretised second-order terminal sliding mode control systems," IEEE Transactions on Circuits and Systems Part II, vol. 59, no. 9, pp. 597-601, September 2012.

- 76. C. van der Velden, C. Bil, and **X. Yu**, "Adaptable methodology for automation application development," Advanced Engineering Informatics, vol. 26, pp. 231-250, 2012.
- 77. **X. Yu**, B. Wang, and X. Li, "Computer-controlled variable structure systems: the state of the art," IEEE Transactions on Industrial Informatics, vol. 8, no. 2, pp. 197-205, 2012.
- 78. S. Yu, J. Lu, **X. Yu**, and G. Chen, "Design and implementation of grid multi-wing hyperchaotic Lorenz system family via switching control and constructing super-heteroclinic loops," IEEE Transactions on Circuits and Systems Part I Regular Papers, vol. 59, no. 5, pp. 1015-1028, 2012.
- 79. B. L. Zhang, Q.-L. Han, X.-M. Zhang, and **X. Yu**, "Integral sliding mode control for offshore steel jacket platforms," Journal of Sound and vibration, vol. 331, pp. 3171-3185, 2011.
- 80. J. Yin, S. Khoo, Z. Man, and **X. Yu**, "Finite-time stability and instability of stochastic nonlinear systems," Automatica, vol. 47, no. 12, pp. 2671-2677, December 2011.
- 81. Z. Xu, H. Wu, **X. Yu,** K. Horadam, and B. Qiu, "Robust shape-feature-vector-based face recognition system," IEEE Transactions on Instrumentation and Measurement, vol. 60, no. 12, pp. 3781-3791, December 2011.
- 82. D. De Silva, **X. Yu**, D. Alahakoon, and G. Holmes, "A data mining framework for electricity consumption analysis from meter data," IEEE Transactions on Industrial Informatics, vol. 7, no. 3, pp.399-407, August 2011.
- 83. Z. Xu, H.R. Wu, **X. Yu**, and B. Qiu, "Adaptive progressive filter to remove impulse noise in highly corrupted color images", Signal, Image and Video Processing, Springer, (online first) October 2011.
- 84. Y. Chen, J. Lu, F. Han, and **X. Yu**, "On the cluster consensus of discrete-time multi-agent systems," Systems & Control Letters, vol. 60, no. 7, pp. 517-523, 2011.
- 85. P. Wang, D. Li, X. Wu, J. Lü, and **X. Yu**, "Ultimate bound estimation of a class of high dimensional quadratic autonomous dynamical systems," International Journal of Bifurcation and Chaos, vol. 21, no. 9, pp. 2679-2694, September 2011.
- 86. W. Guo, J. Lü, S. Chen, and **X. Yu**, "Second-order tracking control for leader-follower multi-agent flocking in directed graphs with switching topology," Systems & Control Letters, vol. 60, no. 12, pp. 1051-1058, Dec. 2011.
- 87. Y. Chen, J. Lü, and **X. Yu**, "Robust consensus of multi-agent systems with time-varying delays in noisy environment," Sci. China: Technol. Sci., vol. 54, no. 8, pp. 2014-2023, August 2011.
- 88. C. Y.-K. Ho, B. W.-K. Ling, J. D. Reiss, and **X. Yu**, "Global stability, limit cycles and chaotic behaviors of second order interpolative sigma delta modulators," International Journal of Bifurcation and Chaos, vol. 21, no. 6, pp. 1755-1722, 2011.
- 89. **X. Yu**, C. Cecati, T. Dillon, and M. Simoes, "The new frontier of Smart Grids: An industrial electronics perspective," IEEE Industrial Electronics Magazine, vol. 5, no.3, pp. 49-63, September 2011.
- 90. X. Li, H. Gao, and **X. Yu**, "A unified approach to the stability of generalized static neural networks with linear fractional uncertainties and delays," IEEE Transactions on Systems, Man and Cybernetics, Part B, vol. 41, no. 5, pp. 1275-1286, 2011.
- 91. Z. Galias and **X. Yu**, "Study of periodic solutions of discretized two-dimensional sliding mode control systems," IEEE Transactions on Circuits and Systems Part II Briefs, vol. 58, no.6, pp. 381-385, 2011.
- 92. S. Yu, J. Lu, G. Chen, and **X. Yu**, "Generating grid multi-wing chaotic attractors by constructing heteroclinic loops into switching systems," IEEE Transactions on Circuits and Systems Part II Briefs, vol. 58, no. 5, pp. 314-318, May 2011.
- 93. **X. Yu**, B. Wang, B. Batbayar, L. Wang, and Z. Man, "An improved training algorithm for neural networks learning based on terminal attractors," Journal of Global Optimization, vol. 51, no. 2, pp. 271-284, 2011.
- 94. R. Dodd, R. Broadfoot, **X. Yu**, and A. Chiou, "Implementation plans for supervisory control of pan stage operations," International Sugar Journal, vol. 112, no. 1344, pp.671-677, December 2010.
- 95. S. Yu, J. Lu, G. Chen, and **X. Yu**, "Design and implementation of grid multi-wing butterfly chaotic attractors from a piecewise Lorenz system," IEEE Transactions on Circuits and Systems Part II Briefs, vol. 57, no. 10, pp. 803-807, October 2010.
- 96. Y. Wang and **X. Yu**, "New coordinated control design for thermal power generation units", IEEE Transactions on Industrial Electronics, vol. 57, no. 11, pp. 3848-3856, November 2010.

- 97. Z. Xu, H. Wu, **X. Yu**, and B. Qiu, "Colour image enhancement by virtual histogram approach," IEEE Transactions on Consumer Electronics, vol. 56, no. 2, pp.704-712, May 2010.
- 98. R. Dodd, A. Chiou, R. Broadfoot, and **X. Yu**, "Composite process models used in stock tank quantity prediction for mill crystallisation stage knowledge based supervisory support," Journal of Systems and Control Engineering, vol. 224, no. 17, pp.811-824, November 2010.
- 99. C. P. Tan, **X. Yu**, and Z. Man, "Terminal sliding mode observers for a class of nonlinear systems," Automatica, vol. 46, no. 8, pp.1401-1404, August 2010.
- 100. **X. Yu** and O. Kaynak, "Sliding mode control with soft computing: A survey," IEEE Transactions on Industrial Electronics, vol. 56, no. 9, pp.3275-3285, September 2009.
- 101. Y. Feng, J. Zheng, **X. Yu**, and N. V. Truong, "Hybrid terminal sliding mode observer design method for a permanent magnet synchronous motor control system", IEEE Transactions on Industrial Electronics, vol. 56, no. 9, pp. 3424-3431, September 2009.
- 102. Z. Xu, H. R. Wu, B. Qiu, and **X. Yu**, "Geometric features based filtering for suppression of impulse noise in color images," IEEE Transactions on Image Processing, vol. 18, no. 8, pp. 1742-1759, August 2009.
- 103. K. L. Wong, S. Pathak, and **X. Yu**, "An investigation of leakage current flow in wooden pole," IEEE Transactions on Dielectrics and Electrical Insulation, vol. 16, no. 1, pp. 133-138, 2009.
- 104. S. Gao, Z. Man, and **X. Yu**, "Feedback control of T-S fuzzy systems based on LTV system theory," International Journal of Electrical Engineering Education, vol. 46, no. 1, pp. 47-58, January 2009.
- 105. H. Zhang, G. K. Raikundalia, Y. Zhang, and **X. Yu**, "Application of multi-agent technology to information systems: An agent-based design architecture for decision support systems," Australian Journal of Information Systems, vol. 15, no. 2, 2009.
- 106. J. Hu, **X. Yu,** D. Qui, and H.-H. Chen, "A simple and efficient hidden Markov model scheme for host-based anomaly intrusion detection," IEEE Network, pp. 42-47, January/February 2009.
- 107. X. Li, **X. Yu**, C. Wang, and B. Ling, "Periodic input response of a second-order digital filter with two's complement arithmetic," IEEE Transactions on Circuits and Systems Part II, vol. 56, no. 3, pp. 225-229, 2009.
- 108. B. Wang, **X. Yu**, and G. Chen, "ZOH discretization effect on single-input sliding mode control systems with matched uncertainties," Automatica, vol. 45, pp. 118-125, 2009.
- 109. B. Wang, **X. Yu**, and X. Li, "ZOH discretization effect on high-order sliding mode control systems," IEEE Transactions on Industrial Electronics, vol. 55, no. 11, pp. 4055-4064, November 2008.
- 110. Z. Galias and **X. Yu**, "Analysis of zero-order holder discretization of two-dimensional sliding mode control systems," IEEE Transactions on Circuits and Systems part II, vol. 55, no. 12, pp. 1269-1273, December 2008.
- 111. **X. Yu**, B. Wang, Z. Galias, and G. Chen, "Discretization effect on equivalent control based multi input sliding mode control systems," IEEE Transactions on Automatic Control, vol. 53, no.6, 1563-1569, July 2008.
- 112. Q. Han, A. Xue, S. Liu, and **X. Yu**, "Robust absolute stability criteria for uncertain Lur'e systems of neutral type," International Journal of Robust and Nonlinear Control, vol. 18, pp. 278-295, 2008.
- 113. C. Van der Velden, C. Bil, **X. Yu**, and A. Smith, "An intelligent system for automatic layout routing in aerospace design," Innovation in Systems and Software Engineering, vol. 3, pp. 117-128, 2007.
- 114. P. Radcliffe and **X. Yu**, "A new time independent asynchronous communication protocol and its applications," IEEE Transactions on Industrial Informatics, vol.3, no.2, pp.143-153, May 2007.
- 115. K. Abidi, J. X. Xu, and **X. Yu**, "On the discrete-time integral sliding mode control," IEEE Transactions on Automatic Control, vol. 52, no. 4, pp. 709-715, April 2007.
- 116. F. Han, **X. Yu,** M. Al-Dabbagh, and Y. Wang, "Locating phase-to-ground short-circuits faults on radial distribution lines," IEEE Transactions on Industrial Electronics, vol. 54, no. 3, pp.1581-1590, 2007.
- 117. F. Han, **X. Yu**, Y. Feng, and J. Hu, "On multi-scroll chaotic attractors in hysteresis-based piecewise linear systems," IEEE Transactions on Circuits and Systems Part II, vol.54, no. 1, pp. 1004-1008, May 2007.
- 118. L. Li, J. Zhou, **X. Yu**, and X. Li. "Constrained power plants unit loading optimization using particle swarm optimization algorithm," WSEAS Transactions on Information Science and Applications, vol. 4, no. 2, pp.296-302, February 2007.
- 119. Y. Feng, X. Han, Y. Wang, and **X. Yu**, "Second order terminal sliding mode control of uncertain multivariable systems," International Journal of Control, vol. 80, no. 6, pp. 856-862, June 2007.

- 120. Z. Galias and **X. Yu**, "Euler's discretization of single input sliding mode control systems," IEEE Transactions on Automatic Control, vo.l. 52, pp. 1726-1730, October 2007.
- 121. Z. Hussain, A. Z. Sadik, **X. Yu**, and P. J. O'Shea, "An approach for stability analysis of a single-bit high-order digital sigma-delta modulator," Digital Signal Processing, vol. 17, pp. 1040-1054, 2007.
- 122. **X. Yu**, J.-X. Xu, Y. Hong, and S. Yu, "Analysis of a class of discrete-time systems with power rule," Automatica, vol. 43, pp. 562-566, 2007.
- 123. C. Y.-F. Ho, B. W.-K. Ling, J. D. Reiss, and **X. Yu**, "Nonlinear behaviors of bandpass sigma-delta modulators with stable system matrices," IEEE Transactions on Circuits and Systems Part II Express Briefs, vol. 53, no. 11, November 2006.
- 124. Z. Galias and **X. Yu**, "Complex discretization behaviors of a sliding mode control system," IEEE Transactions on Circuits and Systems part II, vol.53, no.8, pp.652-656, 2006.
- 125. Z. Man, S. Liu, H. Wu, and **X. Yu**, "A new adaptive back-propagation algorithm based on Lyapunov stability theory for neural networks", IEEE Transactions on Neural Networks, vol. 17, no.6, 1580-1591, November 2006.
- 126. Y. Feng, **X. Yu**, and M. Song, "Second-order terminal sliding mode control of input-delay systems" Asian Journal of Control, vol.8, no. 1, pp.12-20, 2006.
- 127. F. Han, J. Lv, **X. Yu**, and G. Chen, "Dynamical behaviors of a 3D hysteresis based system," Chaos, Solitons and Fractals, vol. 28, pp. 182-192, 2006.
- 128. C. Y.-F. Ho, B. W.-K. Ling, J. D. Reiss, and **X. Yu**, "Occurrence of elliptical fractal patterns in multi-bit bandpass sigma delta modulators," International Journal of Bifurcation and Chaos, vol. 15, pp.3377-3380, 2005.
- 129. S. Yu, **X. Yu**, and B. Shirinzadeh, "Continuous finite-time control for robotic manipulators with terminal sliding modes," Automatica, vol. 41, no. 11, pp. 1957-1964, August 2005.
- 130. F. Han, J. Lű, **X. Yu**, G. Chen, and Y. Feng, "Generating multi-scroll chaotic attractors via a linear second-order hysteresis system," Dynamics of Continuous, Discrete and Impulsive Systems, Series B: Applications & Algorithms, vol.12, pp.95-110, 2005.
- 131. S. Yu, **X. Yu**, and Z. Man, "A fuzzy neural network approximator with fast terminal sliding mode and its applications," Fuzzy Sets and Systems, vol. 148, no. 3, pp. 469-486, 2004.
- 132. Q. Han, **X. Yu**, and K. Gu, "On computing the maximum time-delay bound for stability of linear neutral systems," IEEE Transactions on Automatic Control, vol. 49, no. 12, pp. 2281-2285, December 2004.
- 133. J.-Q. Fang and **X. Yu**, "A new type of cascading synchronization for halo-chaos and its potential for communication applications," Chinese Physical Letters, pp.1429-1432, no. 8, vol. 21, 2004.
- 134. J. Lu, G. Chen, **X. Yu**, and H. Leung, "Analysis and design of multi-scroll chaotic attractors from saturated function series," IEEE Transactions on Circuits and Systems Part I, vol. 51, no. 12, pp. 2476-2490, December 2004.
- 135. Y. Tian, **X. Yu**, and L.O. Chua, "Time-delayed impulsive control of chaotic hybrid systems," International Journal of Bifurcation and Chaos, vol. 14, no. 3, pp. 1091-1104, 2004.
- 136. J. Lv, **X. Yu**, and G. Chen, "Chaos synchronization of general small-world chaotic networks," Physica A: Statistical Mechanics and its Applications, vol. 334, pp. 281-302, 2004.
- 137. Y. Feng, S. Bao, and **X. Yu**, "Inverse dynamics non-singular terminal sliding mode control of two-link flexible manipulators," International Journal of Robotics and Automation, vol. 19, no. 2, pp. 91-102, 2004.
- 138. J. Lv, F. Han, **X. Yu**, and G. Chen, "Generating 3-D multi-scroll chaotic attractors: A hysteresis series switching method," Automatica, vol. 40, pp. 1677 1687, 2004.
- 139. F. Han, J. Lv, **X. Yu**, G. Chen, and Y. Feng, "Generating multi-scroll chaotic attractors via a linear second-order hysteresis system," Dynamics of Continuous, Discrete and Impulsive Systems Series B: Applications & Algorithms, vol. 12, pp. 95-110, 2005.
- 140. L. Sun, Y. Feng, and **X. Yu**, "Terminal sliding mode decomposed control of multivariable linear uncertain systems," (in Chinese), Control and Decision, vol.19, no.3, pp.331-338, 2004.
- 141. J. Lv, **X. Yu**, G. Chen, and D. Cheng, "Characterizing the synchronization of small world dynamical networks," IEEE Transactions on Circuits and Systems Part I, vol. 51, no. 4, pp. 787-796, April 2004.

- 142. F. Han, **X. Yu**, Y. Wang, Y. Feng, and G. Chen, "n-scroll chaotic oscillators by second-order systems and double-hysteresis blocks," Electronics Letters, vol. 39, no. 23, pp. 1636-1638, November 2003.
- 143. **X. Yu**, L. Yang, and G. Chen, "Discretization behaviour analysis of a switching control system from a unified mathematical approach," Journal of Control Theory and Applications, vol. 1, no. 1, pp. 43-52, November 2003.
- 144. Y. Feng, X. Zheng, and **X. Yu**, "Second order terminal sliding mode decomposed control of uncertain multivariable systems," Asian Journal of Control, vol.5, no. 4, pp. 505-512, May 2003.
- 145. Y. Tian and **X. Yu**, "Robust learning control for a class of nonlinear systems with periodic and aperiodic uncertainties," Automatica, vol. 39, no. 11, pp. 1957-1966, November 2003.
- 146. Q. Han, K. Gu, and **X. Yu**, "An improved estimate of time-delay in the robust stability problem of time delay systems with norm-bounded uncertainty," IEEE Transactions on Automatic Control, vol. 48, no. 9, pp. 1629–1634, September 2003.
- 147. **X. Yu** and G. Chen, "Discretization behaviours of equivalent control based variable structure systems," IEEE Transactions on Automatic Control, vol. 48, no. 9, pp. 1641–1646, September 2003.
- 148. B. W.-K. Ling, P. Tam, and **X. Yu**, "Step response of a second order digital filter with two's compliment arithmetic," IEEE Transactions on Circuits and Systems Part I, vol. 50, no. 4, pp. 510 522, April 2003.
- 149. M.O. Efe, C. Unsal, O. Kaynak, and **X. Yu**, "Variable structure control of a class of uncertain systems," Automatica, vol. 40, no. 1, January 2004.
- 150. M.O. Efe, O. Kaynak, B. M. Wilamowski, and **X. Yu**, "A robust on-line learning algorithm for intelligent control systems," International Journal of Adaptive Control and Signal Processing, vol. 17, pp. 489-500, 2003.
- 151. J. Lv, **X. Yu**, and G. Chen, "Generating chaotic attractors with multiple merged basins of attraction: A switching piecewise-linear control approach," IEEE Transactions on Circuits and Systems Part I, vol. 50, no. 2, 198-207, February 2003.
- 152. J. Lv, G. Chen, **X. Yu**, and S. Zhang, "Dynamical behaviours of a unified chaotic system," Dynamics of Continuous, Discrete and Impulsive Systems, Series B, vol. 10, 2003.
- 153. Y. Song and **X. Yu**, "Chaos synchronization using an invariant manifold approach," Dynamics of Continuous, Discrete and Impulsive Systems, Series B, vol. 10, pp. 879-889, 2003.
- 154. Z. Guan, T.-H. Qian, and **X. Yu**, "Controllability and observability of linear time varying impulsive systems," IEEE Transactions on Circuits and Systems Part I, vol. 48, no.8, pp.1198-1208, August 2002.
- 155. Y. Feng, S. Bao, and **X. Yu**, "Design method of non-singular terminal sliding mode control systems," (in Chinese), Control and Decision, vol. 17, no. 2, pp. 194-198, 2002.
- 156. Y. Feng, S. Bao, and **X. Yu**, "Fast chattering free terminal sliding mode control of rigid manipulators," (in Chinese), Control and Decision, vol. 17, no. 3, pp. 381-384, 2002.
- 157. Z. Guan, T.-H. Qian, and **X. Yu**, "On controllability and observability for a class of impulsive systems," Systems and Control Letters, vol. 47, pp. 247-257, 2002.
- 158. Z. Man and **X. Yu**, "A new output regulation using sliding mode technique for SISO linear time varying systems," IEEE Transactions on Circuits and Systems Part I, vol. 49, no. 12, pp. 1880-1883, December 2002.
- 159. Z-H. Guan, G. Chen, **X. Yu**, and Y. Qin, "Robust decentralized stabilization for large scale time-delay uncertain impulsive dynamical systems," Automatica, vol. 38, pp. 2075-2084, 2002.
- 160. Y. Feng, **X. Yu**, and Z. Man, "Nonsingular terminal sliding mode control for robotic manipulators," Automatica, vol. 38, pp. 2159-2167, 2002.
- 161. **X. Yu**, O. Efe, and O. Kaynak, "A general backpropagation algorithm for feedforward neural network learning," IEEE Transactions on Neural Networks, vol. 13, no.1, pp.251-254, 2002.
- 162. Y. Song, **X. Yu**, G. Chen, J.-X. Xu, and Y. Tian, "Time delayed repetitive learning control for chaotic systems", International Journal of Bifurcation and Chaos, vol. 12, no. 5, pp.1057-1066, 2002.
- 163. Y. Zheng, C. Zhang, and **X. Yu**, "Invariant structure of nonlinear systems with applications to chaos control," International Journal of Bifurcation and Chaos, vol. 12, no. 5, pp.1149-1158, 2002
- 164. **X. Yu** and Z. Man, "Fast terminal sliding mode control design for nonlinear dynamic systems," IEEE Transactions on. Circuits and Systems Part I, vol 39, no. 2, pp. 261-264, 2002.

- 165. **X. Yu** and Z. Galias, "Periodic behaviours in a digital filter with two's complement arithmetic," IEEE Transactions on. Circuits and Systems Part I, vol. 48, no. 10, pp. 1177-1190, 2001.
- 166. **X. Yu**, G. Chen, Y. Xia, Y. Song, and Z Cao, "An invariant manifold approach for controlling higher order chaotic systems," IEEE Transactions on. Circuits and Systems- Part I, vol. 48, no. 8, pp. 930-937, 2001.
- 167. J. He and **X. Yu**, "Conditions for the convergence of evolutionary algorithms," Journal of Systems Architecture, vol. 47, pp. 601-612, 2001.
- 168. **X. Yu** and Y Song, "Chaos synchronization via controlling partial state of chaotic systems," International Journal of Bifurcation and Chaos, vol. 11, no. 6, pp. 1737-1743, June 2001.
- 169. F. Martin, A. Pinkney, and **X. Yu**, "Cane railway scheduling via constraint logic programming: Labelling order and constraints in a real life application," Annals of Operations Research, vol. 108, pp. 193-209, 2001.
- 170. Y. Wu, H. Li, H. Sun, and **X. Yu**, "Adaptive controller for linear multivariable systems based on the backstepping approach," Control and Decision (in Chinese), vol. 16, no. 1, pp. 90-96, 2001.
- 171. Y. Wu, **X. Yu**, and C. Feng, "The controller of global stabilization for multivariable nonlinear dynamical systems," Control Theory and Application, vol. 18, no. 1, pp. 363-367, 2001.
- 172. **X. Yu** and S. Yu, "Discrete sliding mode control with invariant sliding sectors," ASME Journal of Dynamic Systems, Measurement and Control, vol. 122, no. 4, pp. 776-782, December 2000.
- 173. X. Wang, G. Chen, and **X. Yu**, "Chaotification of continuous time systems via time delay feedback", Chaos, vol. 10, no. 4, pp. 771-779, December 2000.
- 174. M. O. Efe, O. Kaynak, and **X. Yu**, "Sliding mode control of a three degrees of freedom anthropoid robot by driving the controller parameters to an equivalent regime," ASME J. of Dynamic Systems, Meaurement and Control, vol. 122, no. 4, pp. 632-640, December 2000.
- 175. Y. Tian and **X. Yu**, "Stabilizing unstable periodic orbits of chaotic systems with an optimal principle," Journal of the Franklin Institute, vol. 337, no. 6, pp. 771-779, 2000.
- 176. **X. Yu** and B. Wu, "An adaptive penalty function method for constrained optimization with evolutionary programming," Journal of Advanced Computational Intelligence, vol. 4, no. 2, pp. 164-170, 2000.
- 177. Y. Xia, **X. Yu**, and W. Oghanna, "Adaptive robust fast control for induction motors," IEEE Transactions on Industrial Electronics, vol. 47, no. 4, pp. 854-862, August 2000.
- 178. Y. Wu, **X. Yu**, and C. Feng, "Variable structure control for MRAC systems with perturbations in input and output channels," Science in China Series E-Technological Sciences. vol. 31, no. 2, pp. 151-16, 2000.
- 179. Y.-P. Tian and **X. Yu**, "Stabilizing unstable periodic orbits of chaotic systems with unknown parameters," International Journal of Bifurcation and Chaos, Special Issue on Chaos Control, vol. 10, no.3, pp. 611-620, 2000.
- 180. **X. Yu** and Y. Xia, "Detecting unstable periodic orbits in Chen's chaotic attractor," International Journal of Bifurcation and Chaos, vol. 10, no. 8, pp. 1987-1992, August 2000.
- 181. Y.-P. Tian and **X. Yu**, "Adaptive control of chaotic dynamical systems with invariant manifold approach," IEEE Transactions on Circuits and Systems Part I, vol. 47, no. 10, pp. 1537-1542, October 2000.
- 182. Y. Xia, **X. Yu**, G. Ledwich, and W. Oghanna, "Self-tuning relay control design for MIMO systems with fast convergence," IEEE Transactions on Circuits and Systems Part I, vol. 47, no. 10, pp. 1548-1552, October 2000.
- 183. B. Wu and **X. Yu**, "Fuzzy modelling and identification with genetic algorithm based learning," Fuzzy Sets and Systems, vol. 113, no. 3, pp. 351-365, 2000.
- 184. **X. Yu**, Z. Man, S. Chong, and M. Fei, "Adaptive sliding mode control of robotic manipulators," International Journal of Robotics and Automation, vol. 14, no.2, pp. 54-60, 1999.
- 185. **X. Yu** and Z. Man, "Fuzzy sliding mode control systems with adaptive estimation," Cybernetics and Systems: an International Journal, vol. 30, no. 7, pp. 663-680, 1999.
- 186. **X. Yu**, Y. Xia, G. Ledwich, and W. Oghanna, "LQR-based nonlinear tuning relay control design with fast convergence," International Journal of Applied Mathematics and Computer Science, vol. 9, no. 2, pp. 313-326, 1999.
- 187. G. Chen and **X. Yu**, "On time delayed feedback control of chaotic systems," IEEE Transactions on Circuits and systems Part I, vol. 46, no. 6, pp. 767-772, 1999.

- 188. **X. Yu**, "Tracking inherent periodic signals in chaotic systems using adaptive variable structure time delayed control," IEEE Transactions on Circuits and Systems Part I, vol. 46, no. 11, pp. 1408-1411, 1999.
- 189. Z. Man, M. O'Day, and **X. Yu**, "A robust adaptive terminal sliding mode control for rigid robotic systems," Journal of Intelligent & Robotic Systems, vol. 24, pp. 23-41, 1999.
- 190. **X. Yu**, Y. Xia, and W. Oghanna, "Switching control design for inverted-fed induction motor," International Journal of Modelling and Simulation, Vol 19, no. 2, pp. 144-149, 1999.
- 191. Y. Wu and **X. Yu**, "Variable structure control design of uncertain dynamic systems with disturbances in input and output channels," Automatica, Vol 35, no. 2, pp. 311-319, 1999.
- 192. Y. Tian and **X. Yu**, "Adaptive control of Lorenz Chaos," Complexity International, vol. 6, January 1999.
- 193. Y. Wu, **X. Yu** and Z. Man, "Terminal sliding mode control design for uncertain dynamic systems," Systems and Control Letters, vol. 34, no.5, pp.281-288, 1998.
- 194. **X. Yu**, W. Zheng, B. Wu, and X. Yao, "A novel penalty function approach to constrained optimization problems with genetic algorithms," Journal of Advanced Computation Intelligence, vol. 2, no. 6, pp. 208-213, 1998.
- 195. S.S. Chong, **X. Yu**, and Z. Man, "Robust adaptive sliding mode control with modified regressor matrix and composite adaptation for robotic manipulators," Advanced Robotics, vol. 12, no. 1, pp. 53-66, 1998.
- 196. **X. Yu** and Z. Man, "Multi-input uncertain linear systems with terminal sliding mode control", Automatica, vol. 34, no. 3, pp. 389-392, 1998.
- 197. Z. Man, **X. Yu**, and H.R. Wu, "An RBF neural network based adaptive control for SISO linearizable nonlinear systems," Neural Computing and Application, vol. 7, pp.71-77, 1998.
- 198. Z. Cao and **X. Yu**, "Switching based signal estimation with digital implementation," Signal Processing, vol. 65, no. 1, pp. 135-141, 1998.
- 199. **X. Yu**, Z. Man, and S.M.M. Rahman, "Adaptive sliding mode approach for learning in a feedforward neural network," Neural Computing and Application, vol. 9, pp. 289-294, 1998.
- 200. **X. Yu**, "Discretization effect on a sliding mode control system with bang-bang type switching," International Journal of Bifurcation and Chaos, vol. 8, no. 6, pp. 1245-1257, 1998.
- 201. Y. Wu and **X. Yu**, "Adaptive output feedback variable structure control for uncertain systems," International Journal of Control, vol. 69, no. 1, pp. 145-162, 1998.
- 202. F. Mei, Z. Man, **X. Yu**, and D. T. Nguyen, "A robust tracking control scheme for a class of nonlinear systems with fuzzy nominal model," International Journal of Applied Mathematics and Computer Science, vol. 8, no. 1, pp. 145-158, 1998.
- 203. Z. Man and **X. Yu**, "An adaptive control using fuzzy basis function expansions for a class of nonlinear systems," Journal of Intelligent & Robotics Systems, vol. 21, pp. 257-275, 1998.
- 204. Y. Wu and **X. Yu**, "Adaptive sliding mode control of uncertain nonlinear systems Backstepping approach," Journal of Control Theory and Application, vol. 15, no. 6, pp. 900-907, 1998.
- 205. **X. Yu**, Z. Man, and B. Wu, "Design of fuzzy sliding mode control systems," Fuzzy Sets and Systems, vol. 95, no. 3, pp. 295-306, 1998.
- 206. B. Wu and **X. Yu**, "Evolutionary programming based modelling scheme for fuzzy systems," Special issue on Intelligent and Evolutionary Systems, Australian Journal of Intelligent Information Processing Systems, vol. 4, no. 3/4, pp. 249-257, 1997.
- 207. **X. Yu**, "Bifurcation and chaotic behaviors in the variable structure system with unlimited control magnitudes," International Journal of Bifurcation and Chaos, vol. 7, no. 8, pp. 1897-1993, 1997.
- 208. **X. Yu**, "Controlling chaos using input-output linearisation approach," International Journal of Bifurcation and Chaos, vol. 7, no. 7, pp. 1659-1664, 1997.
- 209. Z. Man and **X. Yu**, "Adaptive terminal sliding mode tracking control for rigid robotic manipulators with uncertain dynamics," JSME International Journal, vol. 40, no.3, pp. 493-502, 1997.
- 210. **X. Yu**, "Variable structure approach for controlling chaos," Chaos, Solitons and Fractals, vol. 8, no. 9, pp. 1577-1586, 1997.
- 211. Z. Man and **X. Yu**, "Terminal sliding mode control of MIMO linear systems," IEEE Transactions on Circuits and Systems: Part I, vol. 44, no. 11, pp.1065-1070, November, 1997.
- 212. **X. Yu**, M. Mohammadian, and J.D. Smith, "Automated fuzzy knowledge acquisition with connectionist adaptation," Neural Computing & Applications, vol.4, no.1, pp. 27-34, 1996.

- 213. **X. Yu** and J.-X. Xu, "A novel nonlinear signal derivative estimator," vol. 31, no. 16, pp. 1445-1447, Electronics Letters, 1996.
- 214. **X. Yu**, "Discretisation effect on the optimal control of harmonic oscillators," Electronics Letters, vol. 32, no.4, pp. 412-413, 1996.
- 215. J.-X. Xu, T.H. Lee, M. Wang, and **X. Yu**, "Design of variable structure control systems with continuous switching control," International Journal of Control, vol. 65, no.2, pp. 409-431, 1996
- 216. **X. Yu**, "Discretization chaos: Variable structure systems with finite switching values," Journal of Applied Mathematics and Computer Science, vol.6, no. 1, pp. 49-66, 1996.
- 217. **X. Yu**, "Controlling Lorenz chaos," International Journal of Systems Science, vol. 27, pp. 355-361, 1996.
- 218. **X. Yu** and Z. Man, "Model reference adaptive control systems with terminal sliding modes," vol. 64, no. 6, pp. 1165-1176, International Journal of Control, 1996.
- 219. **X. Yu**, "Discretization chaos in the switching control system with finite switching values," International Journal of Bifurcation and Chaos, vol.5, no.6, pp. 1749-1755, 1995.
- 220. **X. Yu**, H. Sira-Ramirez, and G. Ledwich, "Switching control strategy for the power system stabilization problem," International Journal of Control, vol.62, no.5, pp. 1021-1036, 1995.
- 221. R.B. Potts and **X. Yu**, "Difference equation modelling of a variable structure system," Computers and Mathematics with Applications, vol.28, no.1-3, pp.281-189, 1994.
- 222. **X. Yu**, "Exponential discretisation of variable structure control systems," Pure Mathematics and Application, vol.4, no.1, pp.5-33, 1993.
- 223. **X. Yu**, "Discrete variable structure control systems," International Journal of Systems Science, vol. 24, no.2, pp373-386, 1993.
- 224. **X. Yu** and R.B. Potts, "Analysis of discrete variable structure systems with pseudo-sliding modes," International Journal of Systems Science, vol.23, no.4, pp.503-516, 1992.
- 225. **X. Yu** and R.B. Potts, "Computer-controlled variable structure systems," Journal of Australian Mathematical Society, Series B, vol.34, pp.1-17, 1992.
- 226. R.B. Potts and **X. Yu**, "Discrete variable structure system with pseudo-sliding modes," Journal of Australian Mathematical Society, Series B, vol.32, pp.365-376, 1991.
- 227. C.-B. Feng and **X. Yu**, "The design of feedback control systems with logic switching," Chinese Journal of Automation, vol.1, no.1, pp.928-931, 1989.

Conference Papers

- 1. W. Haider, J. Hu, **X. Yu**, and Y. Xie, "Integer data zero-watermark assisted system calls abstraction and normalization for host based anomaly detection systems," IEEE CSCloud, accepted for presentation, 15 August 2015.
- 2. C. Li, **X. Yu**, W. Yu, and T. Huang, "Networked optimization for demand-side management based on non-cooperative game," Proceedings of 2015 IEEE International Conference on Industrial Informatics (INDIN'15), Cambridge, UK, July 2015.
- 3. L. Xu, **X. Yu**, Y. Feng, F. Han, J. Hu, and Z. Tari, "A fast terminal sliding mode observers for TCP/IP network anomaly traffic detection," Proceedings of 2015 IEEE International Conference on Industrial Technology (ICIT'15), pp. 28-33, Seville, Spain, March 2015.
- 4. Y. Yan, **X. Yu**, and C. Sun, "Discretization behaviours of a super-twisting algorithm based sliding mode control system," Proceedings of 2015 International Workshop on Recent Advances in Sliding Modes (RAMS'15), June 2015.
- 5. S. Janghoban, Q. Wang, D.G. Holmes, and **X, Yu**, "A knowledge-based magnetic component design system with finite element analysis integration," Applied Power Electronic Conference and Exposition (APEC), pp. 1038-1044, 2015
- 6. W. Yu, C. Li, **X. Yu**, G. Wen, and J. Lu, "Distributed consensus strategy for economic power dispatch in a smart grid," Proceedings of 10th Asian Control Conference, June 2015.
- 7. P. Wang, Y. Zhang, J. Lu, and **X. Yu**, "Topological characterization of housekeeping genes in human protein-protein interaction network," Proceedings of 2014 9th International Conference on Systems Biology (ISB'14), pp. 1-6, 2014.

- 8. S. Janghorban, C. Teixeira, D. G. Holmes, P. McGoldrick, and **X. Yu**, "Magnetic design for a 2.5-kw battery charger," Proceedings of 2014 Australasian Universities Power Engineering Conference (AUPEC'14), pp. 1-6, September 2014.
- 9. Y. Yan, **X. Yu**, and S. Yu, "Periodical behaviors of a discretized twisting algorithm based sliding mode control system," Proceedings of 2014 13th International Workshop on Variable Structure Systems (VSS'14), pp. 1-6, June 2014.
- 10. Y. Li, W. Yu, G. Wen, **X. Yu**, and L. Yao, "Observer design for consensus of general fractional-order multi-agent systems," Proceedings of the 2014 IEEE International Symposium on Circuits and Systems (ISCAS'14), pp. 1792-1795, June 2014.
- 11. Y. Li, W. Yu, G. Wen, and **X. Yu**, "Consensus tracking of multi-agent systems with reduced information: A fractional-order protocol approach," Proceedings of the 33rd Chinese Control Conference (CCC'14), pp. 1529-1533, June 2014.
- 12. Y. Yan, **X. Yu**, and S. Yu, "Quantization effect on the discrete-time sliding-mode control systems," Proceedings of 2013 32nd Chinese Control Conference (CCC'13), pp. 3199-3204, June 2013.
- 13. W. Sun, J. Lu, S. Chen, and **X. Yu**, "Consensus of multi-agent systems with unbalanced topology," Proceedings of 2013 32nd Chinese Control Conference (CCC'13), pp. 1141-1145, June 2013
- 14. Y. Yan, **X. Yu**, and C. Sun, "Periodic behaviors of a discretized twisting algorithm based sliding mode control system," Proceedings of 2014 13th International Workshop on Variable Structure Systems (VSS'14), June 2014.
- 15. Q. Zhu, **X. Yu**, A. Song, S. Fei, Z. Cao, and Y. Yang, "Stability probability in sliding mode control of second order Markovian jump systems," Proceedings of 2014 26th Chinese Control and Decision Conference (CCDC'14), pp. 2453-2458, June 2014.
- 16. Y. Li, W. Yu, G. Wen, and **X. Yu**, "Observer design for consensus of general fractional-order multi-agent systems," Proceedings of 2014 IEEE International Symposium on Circuits and Systems (ISCAS'14), Melbourne, Australia, June 1-4, 2014.
- 17. P. Wang, **X. Yu**, J. Lu, and A. Chen, "Identification of important nodes in artificial bio-molecular networks," Proceedings of 2014 IEEE International Symposium on Circuits and Systems (ISCAS'14), pp. 1267-1270, Melbourne, Australia, June 1-4, 2014.
- 18. Z. Galias and **X. Yu**, "On zero-order holder discretization of delayed sliding mode control systems," Proceedings of 2014 IEEE International Symposium on Circuits and Systems (ISCAS'14), pp. 1255-1258, Melbourne, Australia, June 1-4, 2014.
- 19. P. Solokowski, X. Li, **X. Yu**, and Y. Feng, "Characterizing leakage current on polluted insulators by measuring nonlinearity," Proceedings of 23rd IEEE International Symposium on Industrial Electronics (ISIE'14), Istanbul, Turkey, June 2014.
- 20. M. Combariza, **X. Yu**, F. J. Tovar-Lopez, W. S. Nesbittx, and A. Mitchell, "Modeling of dynamic platelet aggregation in response to shear rate micro-gradients in a microfluidics device," Proceedings of 2013 ISSNIP Biosignals and Biorobotics Conference (BBC'13), 2013.
- 21. Z. Xu, **X. Yu**, Y. Feng, J. Hu, Z. Tari, and F. Han, "A multi-module anomaly detection scheme based on system call prediction," Proceedings of 8th IEEE International Conference on Industrial Electronics and Applications (ICIEA'13), pp. 1376-1381, May 2013.
- 22. M. Zhou, Y. Feng, and **X. Yu**, "High-order terminal sliding-mode observer for speed estimation of induction motors," Proceedings of 8th IEEE International Conference on Industrial Electronics and Applications (ICIEA'13), pp. 1045-1048, May 2013.
- 23. W. Yu, J. Lu, **X. Yu**, and G. Chen, "A step forward to pinning control of complex networks: finding an optimal vertex to control," Proceedings of 2013 9th Asian Control Conference (ASCC'13), Istanbul, Turkey, June 23-26, 2013.
- 24. S. Tan, J. Lu, **X. Yu**, and D. Hill, "Inheritance of spatial neighbourhood: A feasible mechanism for evolution and maintenance of cooperation," Proceedings of 25th Chinese Control and Decision Conference (CCDC'13), pp. 1205-1209, June 2013.
- 25. Y. Feng, M. Zhou, and **X. Yu**, "High-order sliding-mode based energy saving control of induction motor," Proceedings of 25th Chinese Control and Decision Conference (CCDC'13), pp. 4657-4660, June 2013
- 26. S. Tan, J. Lu, **X. Yu**, and D. Hill, "Characterizing the effect of network structure on evolutionary dynamics via a novel measure of structural heterogeneity," Proceedings of 25th Chinese Control and Decision Conference (CCDC'13), pp. 784-789, June 2013

- 27. Z. Xu, **X. Yu**, Z. Tari, F. Han, Y. Feng, and J. Hu, "Top-k future system call prediction based multi-module anomaly detection system," Proceedings of 2013 6th International Congress on Image and Signal Processing (CISP'13), pp. 1748-1753, 2013.
- 28. W. Yu and **X. Yu**, "A forward step for adaptive synchronization in directed complex networks," Proceedings of 2013 IEEE International Symposium on Circuits and Systems (ISCAS'13), Beijing, China, May 19-23, 2013.
- 29. W. Xiong, W. Yu, J. Lu, and **X. Yu**, "Fuzzy sampled controller design for consensus of multiagent networks with varying connections," Proceedings of 2013 9th Asian Control Conference (ASCC'13), Istanbul, Turkey, June 23-26, 2013.
- 30. C. Mu, **X. Yu**, and C. Sun, "Analysis on transient time of nonsingular terminal sliding mode control," Proceedings of 2013 32nd Chinese Control Conference (CCC'13), pp. 3194-3198, July 2013.
- 31. Z. Yang, W. Xu, and **X. Yu**, "Optimal PHEV charge scheduling for additional power loss ratio and charging cost minimizations," Proceedings of 2013 International Conference on Electrical Machines and Systems (ICEMS'13), pp. 465-469, 2013.
- 32. M. Wang, W. Xu, H. Jia, and **X. Yu**, "A new method for DFIG fault ride through using resistance and capacity crowbar circuit," Proceedings of 2013 IEEE International Conference on Industrial Technology (ICIT'13), pp. 2004-2009, 2013.
- 33. Z. Galias and **X. Yu**, "Discretization effects in single input delayed sliding mode control systems," Proceedings of 2013 European Conference on Circuit Theory and Design (ECCTD'13), 2013.
- 34. M. Lennard and **X. Yu**, "Preliminary investigation of the viability of Islanded Microgrids in urban environments," Proceedings of 2013 Australasian Universities Power Engineering Conference (AUPEC'13), August 2013.
- 35. W. Xu, **X. Yu**, and W. Yang "Decoupling model based predictive torque control algorithm with low switching frequency for flux-switching permanent magnet synchronous machines," Proceedings of 2013 Australasian Universities Power Engineering Conference (AUPEC'13), August 2013.
- 36. W. Yu, G. Wen, J. Lu, and **X. Yu**, "Observers design in complex networks: Pinning observability," Proceedings of 2013 10th IEEE International Conference on Control and Automation (ICCA'13), pp. 141-146, 2013.
- 37. Q. Wang, S. Janghorban, **X. Yu**, and G. Holmes, "Computer-Aided power transformer design: A short review," Proceedings of 2013 Australasian Universities Power Engineering Conference (AUPEC'13), 2013.
- 38. D. Alahakoon and **X. Yu**, "Advanced analytics for harnessing the power of smart meter big data," Proceedings of 2013 IEEE International Workshop on Intelligent Energy Systems (IWIES'13), Vienna, Austria, November 2013.
- 39. T. Wang, **X. Yu**, D. Alahakoon, and S. Fei, "An enhancing dynamic self-organizing map for data clustering," Proceedings of 2013 10th IEEE International Conference on Control and Automation (ICCA'13), pp. 1324-1329, 2013.
- 40. S. Tan, J. Lu, **X. Yu**, and D. Hill, "Monotonicity of fixation probability of evolutionary dynamics on complex networks," Proceedings of 38th Annual Conference of IEEE Industrial Electronics Society (IECON'12), pp. 2337-2341, Montreal, Canada, October 2012.
- 41. M. Wang, W. Xu, H. Jia, and **X. Yu**, "A new control system to strengthen the LVRT capacity of DFIG based on both crowbar and DC chopper circuits," Proceedings of 2012 Innovative Smart Grid Technologies Asia (ISGT Asia'12), pp. 1-6, Tianjin, China, May 2012.
- 42. M. Wang, W. Xu, H. Jia, and **X. Yu**, "A novel method to optimize the active crowbar resistance for low voltage ride through operation of doubly-fed induction generator based on wind energy," Proceedings of 2012 IEEE International Conference on Industrial Electronics (ISIE'12), pp. 957-962, May 2012.
- 43. S. Tan, J. Lu, **X. Yu**, and D. Hill, "Exploring evolutionary dynamics in a class of structured populations," Proceedings of 2012 IEEE International Symposium on Circuits and Systems (ISCAS'12), pp. 169-172, May 2012.
- 44. W. Xu, W. Yang, **X. Yu**, and J. He, "One new model based predictive torque control algorithm for doubly salient permanent magnet synchronous machines," Proceedings of 38th Annual Conference of IEEE Industrial Electronics Society (IECON'12), pp. 4133-4138, Montreal, Canada, October 2012.

- 45. X. Li and **X. Yu**, "a generalized power transfer distribution factor for power injection analysis of power grids," Proceedings of 38th Annual Conference of IEEE Industrial Electronics Society (IECON'12), pp. 4724-4728, Montreal, Canada, October 2012.
- 46. J. Shi, **X. Yu**, Y. Yan, and S. Yu, "Comparison of two types of nonlinear controllers for magnetic bearing system stabilization: An experimental approach," Proceedings of the 3rd International Conference on Intelligent Control and Information Processing (ICICIP'12), pp. 167-173, July 2012.
- 47. Y. Chen, J. Lu, H. Dong, and **X. Yu**, "On the Lyapunov exponent of consensus algorithm," Proceedings of the 10th World Congress on Intelligent Control and Automation (WCICA'12), pp. 931-936, July 2012.
- 48. Y. Feng, M. Zhou, H. Shi, and **X. Yu**, "Flux estimation of induction motors using high-order terminal sliding-mode observer," Proceedings of the 10th World Congress on Intelligent Control and Automation (WCICA'12), pp. 1860-1863, July 2012.
- 49. J. Shi, Y. Yan, S. Yu, and **X. Yu**, "Dynamic output feedback sliding mode control for magnetic bearing system stabilization," Proceedings of the 10th World Congress on Intelligent Control and Automation (WCICA'12), pp. 1547-1552, July 2012.
- 50. L. Tan, W. Yang, C. Zeng, D. Dorrell, and **X. Yu**, "A linear-prediction maximum power point tracking algorithm for photovoltaic power generation," Proceedings of 38th Annual Conference of IEEE Industrial Electronics Society (IECON'12), pp. 3334-3339, Montreal, Canada, October 2012.
- 51. X. Li, W. Xu, **X. Yu**, and Y. Feng, "Sliding mode control of wind energy generation systems using PMSG and input-output linearization," Proceedings of the 31st Chinese Control Conference, pp. 6841-6846, Hefei, China, July 2012.
- 52. Y. Feng, B. Chen, **X. Yu**, and Y. Yang, "Terminal sliding mode control of induction generator for win energy conversion systems," Proceedings of 38th Annual Conference of IEEE Industrial Electronics Society (IECON'12), pp. 4741-4746, Montreal, Canada, October 2012.
- 53. Y. Yan, **X. Yu**, and S. Yu, "Quantization effect on sliding-mode control of a second-order dynamical system," Proceedings of the 12th International Workshop on Variable Structure Systems, pp. 243-247, Mumbai, India, January 2012.
- 54. Q. Wang and **X. Yu**, "Reasoning over OWL/SWRL ontologies under CWA and UNA for industrial applications," Proceedings of Australasian Joint Conference on Artificial Intelligence (Al'11), Perth, Australia, December 2011.
- 55. Feng, F. Han, **X. Yu**, Z. Tari, L. Li, and J. Hu, Terminal sliding mode observer for anomaly detection in TCP/IP networks. Proceedings of IEEE Conference on Computer Science and Network Technology Conference (ICCSNT'11), Harbin China. Dec. 2011.
- 56. H. Shi, Y. Feng, **X. Yu**, and L. Li, "Adaptive high-order terminal sliding mode control with decoupling stator current for induction motor," Proceedings of 37th Annual Conference of IEEE Industrial Electronics Society (IECON'11), Melbourne Australia, November 2011.
- 57. Q. Wang and **X. Yu**, "Improving reasoning capability for ontology-based geometric product model," Proceedings of 37th Annual Conference of IEEE Industrial Electronics Society (IECON'11), pp. 3048-3053, Melbourne Australia, November 2011.
- 58. C. Mu, C. Sun, and **X. Yu**, "Observation and control for air-breathing hypersonic aircrafts based on sliding mode method," Proceedings of 37th Annual Conference of IEEE Industrial Electronics Society (IECON'11), pp. 3965-3967, Melbourne Australia, November 2011.
- 59. Y. Chen, J. Lu, and **X. Yu**, "Convexity-preserving formation control of multi-agent systems," Proceedings of 37th Annual Conference of IEEE Industrial Electronics Society (IECON'11), pp. 4029-4034, Melbourne, Australia, November 2011.
- 60. J. Yang, S. Li, and **X. Yu**, "Sliding mode control for systems with mismatched uncertainties via a disturbance observer," 37th Annual Conference of IEEE Industrial Electronics Society (IECON'11), pp. 3988-3993, Melbourne, Australia, November 2011.
- 61. L. Li, **X. Yu**, X. Li, and W. Gu, "A dynamic neighborhood particle swarm optimization algorithm for constrained optimization," Proceedings of 37th Annual Conference of IEEE Industrial Electronics Society (IECON'11), pp. 3042-3047, Melbourne, Australia, November 2011.
- 62. Y.-L. Wang, Q.-L. Han, and **X. Yu**, "Stabilization of non-uniform sampling networked control systems," Proceedings of 37th Annual Conference of IEEE Industrial Electronics Society (IECON'11), pp. 2624-2629, Melbourne, Australia, November 2011.

- 63. Y.-L. Wang, Q.-L. Han, and **X. Yu**, "One-step prediction-based packet dropout compensation for networked control systems," Proceedings of 2011 American Control Conference (ACC'11), pp. 2849-2854, 2011.
- 64. Y. Xu, H.R. Wu, **X. Yu**, Z. Man, and D. M. Tan, "Composite video noise modelling and suppressing", Proceedings of 13th IASTED International Conference on Signal and Image Processing (SIP'11), Dallas, Texas USA, December 2011.
- 65. Z. Man, S. Khoo, **X. Yu**, and J. Jin, "A new sliding mode-based learning control scheme," Proceedings of the 6th IEEE Conference on Industrial Electronics and Applications (ICIEA'11), pp. 1906 1911, Beijing, June 2011.
- 66. Y. Chen, J. Lu, F. Han, and **X. Yu**, "Cluster consensus of discrete-time multi-agent systems with fixed topology," Proceedings of the 8th Asian Control Conference (ASCC'11), pp. 794 -799, Kaohsiung, Taiwan, May 2011.
- 67. Z. Xu, H.R. Wu, **X. Yu,** and Z. Man, "Adaptive surveillance video noise suppression", Proceedings of 24th Canadian Annual Conference on Electrical and Computer Engineering (CCECE'11), pp. 985-988, May 2011, Niagara Falls, Canada.
- 68. (*)D. De Silva, **X. Yu**, D. Alahakoon, and G. Holmes, "Incremental pattern characterization learning and forecasting for electricity consumption using smart meters," Proceedings of 2011 IEEE International Symposium on Industrial Electronics (ISIE'11), pp. 807 812, Gdansk, Poland, May 2011.
- 69. A. Dwivedi and **X. Yu**, "Fault location in radial distribution lines using travelling waves and network theory," Proceedings of 2011 IEEE International Symposium on Industrial Electronics (ISIE'11), pp. 1051 1056, Gdansk, Poland, May 2011.
- 70. S. Yu, J. Lu, G. Chen, and **X. Yu**, "Design of grid multi-wing butterfly chaotic attractors from piecewise Lü system based on switching control and heteroclinic orbit," Proceedings of 2011 IEEE International Symposium on Circuits and Systems (ISCAS'11), pp. 1335 1338, Rio de Janeiro, Brazil, May 2011.
- 71. Y.-L. Wang, Q.-L. Han, and **X. Yu**, "One step prediction-based packet dropout compensation for networked control systems," Proceedings of 2011 American Control Conference (ACC'11), pp. 2849 2854, San Francisco, June/July 2011.
- 72. X. Li, A. Dwivedi, and **X. Yu**, "Assessing cascading failure in power networks based on power line correlations," proceedings of 2011 International Conference on Power Engineering, Energy and Electrical Drives (POWERENG'11), pp. 1 6, Malaga, Spain, May 2011.
- 73. C. Mu, B. Wang, C. Sun, and **X. Yu**, "Tracking control of air-breathing hypersonic aircrafts in cruising flight based on sliding mode method," Proceedings of 30th Chinese Control Conference (CCC'11), pp. 5245 5249, Yantai, China, July 2011.
- 74. S. Li, M. Zhou and **X. Yu**, "Disturbance observer based terminal sliding mode control method for PMSM speed regulation system," Proceedings of 30th Chinese Control Conference (CCC'11), pp. 6287 6292, Yantai, China, July 2011.
- 75. B. Wang, **X. Yu**, L. Wang, and Z. Zhang, "Periodic behaviors in sampled-data sliding mode based observers," Proceedings of 30th Chinese Control Conference (CCC'11), pp. 2544 2548, Yantai, China, July 2011.
- 76. Z. Galias and **X. Yu**, "Periodic behaviors in discretized second-order terminal sliding mode control systems," Proceedings of the 20th European Conference on Circuit Theory and Design (ECCTD'11), pp. 636 639, Linkoping, Sweden, August 2011.
- 77. J. Lu, G. Chen, and **X. Yu**, "Modelling, analysis and control of multi-agent systems: A brief overview," Proceedings of 2011 IEEE International Symposium on Circuits and Systems (ISCAS'11), pp. 2103 2106, Rio de Janeiro, Brazil, May 2011.
- 78. C. Yao, J. Lu, **X. Yu,** and D. W. C. Ho, "Consensus of second order discrete-time multi-agent systems with switching topology," Proceedings of 30th Chinese Control Conference (CCC'11), pp. 5981 5986, Yantai, China, July 2011.
- 79. X. Li, **X. Yu**, Q. Han, H. Gao, and C. Wang, "A discontinuous output feedback control law for stabilization of oscillators with bounded delayed input," Proceedings of 30th Chinese Control Conference (CCC'11), pp. 208 213, Yantai, China, July 2011.
- 80. S.M.M. Rahman, M.R.A. Kotwal, and **X. Yu**, "Mining classification rules via an priori approach," Proceedings of 13th International Conference on Computer and Information Technology (ICCIT'10), pp. 388-393, 2010.

- 81. Z. Xu, H.R. Wu, **X. Yu,** and Z. Man, "Modelling of surveillance video noise," Proceedings of 8th IASTED International Conference on Signal Processing, Pattern Recognition and Applications (SPPRA'11), pp.184-191, Innsbruck, Austria, February 2011
- 82. B. Wang, **X. Yu,** and L. Wang, "Convergence accuracy analysis of discretized sliding mode control systems," Proceedings of 11th International Conference on Control, Automation, Robotics and Vision (ICARCV'10), pp. 1370-1374, Singapore, December 2010.
- 83. B.L. Zhang, Q. Han, X.-M. Zhang, and **X. Yu**, "Sliding mode control for offshore steel jacket platforms," Proceedings of 36th Annual Conference of IEEE Industrial Electronics Society (IECON'10), 7-10 November 2010.
- 84. H. Shi, Y. Feng, and **X. Yu**, "High-order terminal sliding mode control for induction motor," Poceedings of 36th Annual Conference of IEEE Industrial Electronics Society (IECON'10), 7-10 November 2010.
- 85. A. Dwivedi, **X. Yu,** and P. Sokolowski, "Fault location in power networks using network graph theory, Proceedings of 36th Annual Conference of IEEE Industrial Electronics Society (IECON'10), 7-10 November 2010.
- 86. Y. Feng, J. Li, and **X. Yu**, "Multi-dimensional signals transmission via single channel for chaos synchronization" Proceedings of 36th Annual Conference of IEEE Industrial Electronics Society (IECON'10), 7-10 November 2010.
- 87. X. Li, **X. Yu,** and Q.-L. Han, "Chattering analysis of time-delayed second-order sliding mode control systems using Poincare map," Proceedings of 49th IEEE Conference on Decision and Control (CDC'10), December 2010.
- 88. Y.-L. Wang, Q.-L. Han, and **X. Yu**, "Packet dropout separation-based networked control systems quantitative synthesis," Proceedings of 49th IEEE Conference on Decision and Control (CDC'10), December 2010.
- 89. Y.-L. Wang, Q.-L. Han, and **X. Yu**, "Performance optimization for networked control systems with limited channels and data drift," Proceedings of 49th IEEE Conference on Decision and Control (CDC'10), December 2010.
- 90. X. Li, **X. Yu**, Q. Han, and C. Wang, "Time-delay effect on continuous approximation of sliding mode control," Proceedings of 2010 International Workshop on Variable Structure Systems (VSS'10), Mexico, June 2010.
- 91. Z. Man, S. Khoo, **X. Yu**, C. Miao, and Jiong Jin, "A new design of sliding mode control systems," Proceedings of 2010 International Workshop on Variable Structure Systems (VSS'10), Mexico, June 2010.
- 92. H. Shi, Y. Feng, and **X. Yu**, "Adaptive backstepping hybrid terminal sliding mode control for permanent magnet synchronous motor," Proceedings of 2010 International Workshop on Variable Structure Systems (VSS'10), Mexico, June 2010.
- 93. Q. Wang, W. Peng, and **X. Yu**, "Ontology based geometry recognition for STEP," Proceedings of 2010 IEEE International Symposium on Industrial Electronics (ISIE'10), pp.1686-1691, Bari, Italy, June 2010.
- 94. H. L. Zhang, C.H.C. Leung, **X. Yu,** and J. He, "An optimised design for agent capability reuse," Proceedings of 2010 IEEE/WIC/ACM International Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT'10), pp. 231-234, July 2010.
- a. A. Dwivedi, **X. Yu**, and P. Solokowski, "Analysing power network vulnerability with maximum flow based centrality approach," Proceedings of 2010 IEEE Conference on Industrial Informatics (INDIN'10), Osaka, Japan, July 2010.
- 95. Y. Feng, H. Shi, and **X. Yu**, "A sliding mode observer design method for induction motor control system," Proceedings of 34d International Symposium on Systems and Control in Aeronautics and Astronautics (ISSCAA'10), pp. 1116-1120, Harbin, China, July 2010.
- 96. Q. Wang, W. Peng, and **X. Yu**," Building an explanation generation mechanism in probabilistic knowledge-based systems," Proceedings of 2010 IEEE Conference on Industrial Informatics (INDIN'10), Osaka, Japan, July 2010.
- 97. W. Guo, S. Chen, J. Lu, and **X. Yu**, "Consensus of multi-agent systems with an active leader and asymmetric adjacency matrix," Proceedings of 48th IEEE Conference on Decision and Control (CDC'09), pp. 3697-3702, Shanghai, China, December 2009.

- 98. B. Wang and **X. Yu**, "Euler discretization of second-order terminal sliding mode control systems," Proceedings of 48th IEEE Conference on Decision and Control (CDC'09), pp. 6697-6702, Shanghai, China, December 2009.
- 99. **X. Yu**, A. Dwivedi, and P. Sokolowski, "On complex network approach for fault detection in power grids," Proceedings of 2009 IEEE Conference on Control and Automation (CCA'09), pp. 13-16, Christchurch, New Zealand, December 2009.
- 100. Y. Feng and **X. Yu**, "Nonsingular terminal sliding mode control of uncertain two-link flexible manipulator," Proceedings of 35th Annual Conference of IEEE Industrial Electronics Society (IECON'09), pp. 2295-2300, Porto, Portugal, November 2009.
- 101. Y. Feng and **X. Yu**, "A novel symmetric image encryption approach based on an invertible two-dimensional map," Proceedings of 35th Annual Conference of IEEE Industrial Electronics Society (IECON'09), pp. 1973-1978, Porto, Portugal, November 2009.
- 102. R. Dodd, A. Chiou, **X. Yu**, and R. Broadfoot, "Functional characteristics and proposed deployment infrastructure of an industrial decision support system within a sugar mill crystallisation stage," Proceedings of 3rd IEEE International Conference on Networks and System Security (NSS'09), pp. 495-500, Gold Coast, October 2009.
- 103. R. Dodd, A. Chiou, **X. Yu**, and R. Broadfoot, "Industrial process model integration using a blackboard model within a pan stage decision support system," Proceedings of 3rd IEEE International Conference on Networks and System Security (NSS'09), pp. 489-494, Gold Coast, October 2009.
- 104. L. Li, **X. Yu**, X. Li, and J. Zhou, "A modified PSO algorithm for constrained multi-objective optimization," Proc of 3rd IEEE International Conference on Networks and System Security (NSS'09), pp. 462-467, Gold Coast, October 2009.
- 105. C. Queiroz, A. Mahmood, J. Hu, Z. Tari, and **X. Yu**, "Building a SCADA security testbed," Proc eedings of 3rd IEEE International Conference on Networks and System Security, pp. 357-364, Gold Coast, October 2009.
- 106. C. Van der Velden, H. L. Zhang, **X. Yu**, T. Jones, I. Fieldhouse, and C. Bil, "A knowledge based Systems approach to automated feature recognition", Proceedings of 13th Australian Aeronautical Conference, Melbourne, Australia, 2009.
- 107. C. Van der Velden, H. L. Zhang, **X. Yu**, T. Jones, I. Fieldhouse, and C. Bil, "Extracting engineering features from Geometric Models", Proceedings of 2009 AutoCRC Conference, Melbourne, Australia, 2009.
- 108. H. L. Zhang, C. Van der Velden, **X. Yu**, T. Jones, I. Fieldhouse, and C. Bil, "A knowledge-based system approach for feature recognition in aerospace components design processes", Proceedings of 2009 AutoCRC Conference, Melbourne, Australia, 2009.
- 109. H. L. Zhang, C. Van der Velden, **X. Yu**, C. Bil, T. Jones, and I. Fieldhouse, "Developing a rule engine for automated feature recognition from CAD models", Proceedings of 35th Annual Conferences of the IEEE and Industrial Electronics Society (IECON'09), Porto, Portugal, 2009.
- 110. C. Van der Velden, H. L. Zhang, **X. Yu**, T. Jones, I. Fieldhouse, and C. Bil, "Structuring rules in an automated feature extraction system", Proceedings of 2009 Asia-Pacific International Symposium on Aerospace Technology, Gifu, Japan, 2009.
- 111. C. Van der Velden, H. L. Zhang, **X. Yu**, T. Jones, I. Fieldhouse, and C. Bil, "Extracting engineering features from B-Rep geometric models", Proceedings of 27th Congress of the International Council of Aeronautical Sciences, Niece, France, 2009.
- 112. **X. Yu**, "Knowledge based industrial decision support systems and applications," Proceedings of International Symposium on Industrial Electronics (ISIE'09), Seoul Korea, July 2009.
- 113. Z. Xu, H.R. Wu, and **X. Yu**, "Interest points based object tracking with controlled cameras," Proceedings of IEEE International Conference on Industrial Technology (ICIT'09), pp. 1-6, Melbourne, Australia, February 2009.
- 114. X. Li, **X. Yu**, and C. Wang, "A networked sliding mode controller for servomechanical systems," Proceedings of IEEE International Conference on Industrial Technology (ICIT'09), pp. 1-5, Melbourne, Australia, February 2009.
- 115. P. Sokolowski, A. Dwivedi, S. Pathak, F. Buratto, and **X. Yu**, "Investigating the impedance of a wooden power pole after a pole fire," Proceedings of Australian Universities Power Engineering Conference (AUPEC'09), pp. 1-6, December 2009.

- 116. B. Batbayar and **X. Yu**, "An improved Levenberg-Marquardt learning algorithm for neural networks based on terminal attractors," Proceedings of 2008 International Symposium on Systems and Control in Aerospace and Aeronautics (ISSCAA'08), Shenzhen, China, December 2008.
- 117. Z. Xu, B. Qiu, H.R. Wu, and **X. Yu**, "Adaptive geometric features based filtering impulse noise in colour images," Proceedings of 2008 IEEE 10th Workshop on Multimedia Signal Processing, pp. 247-251, Cairns, 8-10 October 2008
- 118. Z. Xu, H.R. Wu, and **X. Yu**, "Colour image enhancement by hybrid approach," Proceedings of 2008 IEEE 10th Workshop on Multimedia Signal Processing, pp. 252-257, Cairns, 8-10 October 2008
- 119. X. Li, **X. Yu,** and C. Wang, "Stabilization of oscillators with bounded delayed input: Sliding mode control method," Proceedings or 2008 International Symposium on Systems and Control in Aerospace and Aeronautics (ISSCAA'08), Shenzhen, China, December 2008.
- 120. X. Li, **X. Yu**. Q. Han, and C. Wang, "Stability analysis of time-delayed single-input sliding mode control systems," Proceedings of the 34th Annual Conference of Industrial Electronics Society (IECON'08), Orlando, USA, 10-13 November 2008.
- 121. Y. Wang, Y. Feng, and **X. Yu**, "Fuzzy terminal sliding mode control of two-link flexible manipulators," Proceedings of the 34th Annual Conference of Industrial Electronics Society (IECON'08), Orlando, USA, 10-13 November 2008.
- 122. W. Becker, **X. Yu,** and J. Tu, "An adaptive grid method and its application to CFD learning and prediction," Proceedings of the 34th Annual Conference of Industrial Electronics Society (IECON'08), Orlando, USA, 10-13 November 2008.
- 123. N. Cai, J. Wang, and **X. Yu**, "SCADA system security: Complexity, history and new developments," Proceedings of 2008 IEEE Conference on Industrial Informatics (INDIN'08), pp. 569-574, Daejeon, July 2008.
- 124. L. Li, X. Li, and **X. Yu**, "Power generation loading optimization using a multi-objective constraint-handling method via PSO algorithm," Proceedings of 2008 IEEE Conference on Industrial Informatics (INDIN'08), pp. 1632-1637, Daejeon, July 2008.
- 125. Z. Man, W. Shen, and **X. Yu**, "A new terminal sliding mode tracking control for a class of nonminimum phase systems with uncertain dynamics," Proceedings of the 10th International Workshop on Variable Structure Systems (VSS'08), pp. 147-152, Antalya Turkey, 8-10 June 2008.
- 126. **X. Yu**, S. Yu, Z. Man, and Y. Feng, "On singularity free terminal sliding mode control," Proceedings of the 10th International Workshop on Variable Structure Systems (VSS'08), pp. 163-166, Antalya Turkey, 8-10 June 2008.
- 127. J. Zheng, Y. Feng, and **X. Yu**, "Hybrid terminal sliding mode observer design method for permanent magnetic synchronous motor control systems," Proceedings of the 10th International Workshop on Variable Structure Systems (VSS'08), pp. 106-111, Antalya Turkey, 8-10 June 2008.
- 128. **X. Yu**, Q. Han, X. Li, and C. Wang, "Time-delay effect on equivalent control based single-input sliding mode control systems," Proceedings of the 10th International Workshop on Variable Structure Systems (VSS'08), pp. 13-18, Antalya Turkey, 8-10 June 2008.
- 129. L. Li, X. Li, and **X. Yu**, "A multi-objective constraint-handling method with PSO algorithm for constrained engineering optimization problems," Proceedings of IEEE Congress on Computational Intelligence Evolutionary Computation (CEC'08), pp. 1528-1535, Hong Kong, June 2008.
- 130. B. Batybayar and **X. Yu**, "Fast terminal attractor based learning algorithm for feedforward neural networks," Proceedings of the 2007 International Conference on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP'07), pp. 521-526, Melbourne, 3-6 December 2007.
- 131. A. Chiou and **X. Yu**, "A large-scale agro decision support system: framework for fusion of a multi-input and multi-output hybrid system," Proceedings of the 2007 International Conference on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP'07), pp. 527-532, Melbourne, 3-6 December 2007.
- 132. A. Chiou and **X. Yu**, "Remote sensing in decision support systems: Using fuzzy post adjustment in localisation of weed prediction," Proceedings of the 33rd Annual Conference of the IEEE Industrial Electronics Society (IECON'07), Taipei, Taiwan, November 2007.

- 133. Y. Wang, Y. Feng, and **X. Yu**, "High-order non-singular terminal sliding mode control of uncertain multivariable systems," Proceedings of the 33rd Annual Conference of the IEEE Industrial Electronics Society (IECON'07), Taipei, Taiwan, November 2007.
- 134. Y. Wang and **X. Yu**, "A new nonlinear controller for power generation unit," Proceedings of the 33rd Annual Conference of the IEEE Industrial Electronics Society (IECON'07), Taipei, Taiwan, November 2007.
- 135. Y. Yang, X. Huang, and **X. Yu**, "Real-time ECG mornitoring system based on FPGA," Proceedings of the 33rd Annual Conference of the IEEE Industrial Electronics Society (IECON'07), Taipei, Taiwan, November 2007.
- 136. W. Becker, **X. Yu**, and J. Tu, "A generalised CFD learning and prediction system," Proceedings of 2007 IEEE International Conference on Industrial Informatics (INDIN'07), Vienna Austria, July 2007.
- 137. C. van der Velden, C. Bil, **X. Yu**, and A. Smith, "An intelligent system for routing automation" Proceedings of IPROMS 2007, July 2007.
- 138. Z. Galias and **X. Yu**, "Equivalence of two discretization schemes in a simple sliding mode control system," Proceedings of IEEE International Symposium on Circuits and Systems (ISCAS'07), pp. 1677-1680, New Orleans, 27-30 May 2007.
- 139. F. Han, J. Hu, and **X. Yu**, "A biometric encryption approach incorporating fingerprint indexing in key generation," Proceedings of International Conference on Intelligent Computing, Kunming, Yunnan Province, China, 16-19 August 2006.
- 140. K. Abidi, J. X. Xu, and **X. Yu**, "On the discrete-time integral sliding mode control," Proceedings of 2006 International Workshop on Variable Structure Systems (VSS'06), Alghero, Italy, June 2006.
- 141. P.J. Radcliffe and **X. Yu**, "A microprocessor communications for cost sensitive products," Proceedings of IEEE International Conference on Industrial Informatics (INDIN'06), Singapore, August 2006.
- 142. P.J. Radcliffe and **X. Yu**, "A novel time independent asynchronous communication protocol & its applications," Proceedings of the 32nd Annual Conference of IEEE Industrial Electronics Society (IECON'06), Paris, November 2006.
- 143. Y. Yang, **X. Yu,** and C. Sun, "A novel method for continuous periodic interference suppression in on-line PD monitoring of transformers," Proceedings of the 32nd Annual Conference of IEEE Industrial Electronics Society (IECON'06), Paris, November 2006.
- 144. Y. Feng and **X. Yu**, "Nonsingular terminal sliding mode control of uncertain multivariable systems," Proceedings of 2006 International Workshop on Variable Structure Systems (VSS'06), Algero, Italy, June 2006.
- 145. W. Becker, **X. Yu**, and J. Tu, "Single compartment fire risk analysis using a fuzzy neural network," Proceedings of 2006 IEEE International Joint Conference on Neural Networks, Vancouver Canada, July 2006.
- 146. B. Wang, **X. Yu**, and G. Chen, "Discretization behaviors of sliding mode control systems with uncertainties," Proceedings of 2006 World Congress on Intelligent Control and Automation (WCICA'06), Dalian, June 2006.
- 147. X. Li, C. Wang, G. Ma, **X. Yu**, and B. Wang, "Digital redesign of sliding mode control for LTI systems," Proceedings of 2006 World Congress on Intelligent Control and Automation (WCICA'06), Dalian, June 2006.
- 148. F. Han, J. Hu, and **X. Yu,** "A novel hybrid crypto-biometric authentication scheme for ATM based banking application", LNCS 3832, Advances in Biometrics, Proceedings of International Conference on Biometrics, pp.95-110, Hong Kong, China, January 2006.
- 149. **X. Yu**, A. Chiou and R. Dodd, "A novel decision support framework for industrial processes," Proceedings of the 31st Annual Conference of IEEE Industrial Electronics Society, pp. 2210-2215, Raleigh, USA, November 2005.
- 150. F. Han, J. Hu, **X. Yu** and Y. Wang, "A new fingerprint image encryption approach based on two-dimensional chaotic attractors," Proceedings of International Conference on Intelligent Computing, Hefei, China, August 23-26, 2005.
- 151. F. Han, **X. Yu**, and J. Hu, "A new way of generating grid chaos and its application in biometric authentication," Proceedings of the 31st Annual Conference of IEEE Industrial Electronics Society (IECON'05), pp. 61-66, Raleigh, USA, November 2005.

- 152. F. Han, J. Hu, **X. Yu,** and Y. Wang, "A new fingerprint image encryption approach based on two-dimensional chaotic attractors", Proceedings of International Conference on Intelligent Computing, Hefei, China, August, 2005.
- 153. R. Dodd, R. Broadfoot, **X. Yu,** and A. Chiou, "Development of a smart supervisory control system in a sugar mill crystallisation stage," Proceedings of I*PROMS'05, pp.527-534, Cardiff, UK, July 2005.
- 154. X. Jiang, Q.-L. Han, and **X. Yu,** "Robust H/sub /spl infin// control for uncertain Takagi-Sugeno fuzzy systems with interval time-varying delay," Proceedings of American Control Conference (ACC'05), vol. 2, pp. 1114 1119, June 2005.
- 155. B. W.-K. Ling, C. Y.-F. Ho, **X. Yu,** and J. D. Reiss, "Nonlinear behaviors of bandpass sigma delta modulators with stable system matrices", Proceedings of International Conference of Acoustics, Speech and Signal Processing (ICASSP'05), vol. 4, pp.73-76, Philadelphia, March 2005.
- 156. A. Chiou and **X. Yu**, "Prediction of weed dispersal dynamics: Determining multiple concurrent consequences using priority stacks on a blackboard model," Proceedings of IEEE International Conference on Industrial Informatics (INDIN'05), Perth, Australia, August 2005.
- 157. **X. Yu**, F. Han, Y. Feng, and G. Chen, "Domain of attraction of hysteresis-series based chaotic attractors," Proceedings of Complex'04, Cairns, Dec 6-9, 2004.
- 158. F. Han, **X. Yu**, M. Al-Dabbagh, and Y. Wang, "Detecting fault location in radial power distribution networks using a dual frequency approach," Proceedings of Complex'04, , Cairns, Dec 6-9, 2004.
- 159. A. Chiou and **X. Yu**, "P-Expert: Integrated expert advisory system for control and management of parthenium weed infestation," Proceedings of the 30th Annual Conference of IEEE Industrial Electronics Society (IECON'04), Pusan, Korea, Nov 2-6, 2004.
- 160. N. Zhang, Y. Feng, and **X. Yu**, "Optimization of terminal sliding mode control for two-link flexible manipulators," Proceedings of the 30th Annual Conference of IEEE Industrial Electronics Society (IECON'04), Pusan, Korea, Nov 2-6, 2004.
- 161. F. Han, **X. Yu**, Y. Wang and M. Al-Dabbagh, "Sinusoidal steady-state analysis for fault location," Proceedings of the 30th Annual Conference of IEEE Industrial Electronics Society (IECON'04), Pusan, Korea, Nov 2-6, 2004.
- 162. Y. Feng, L. Sun, and **X. Yu**, "Finite time synchronization of chaotic systems with unmatched uncertainties," Proceedings of the 30th Annual Conference of IEEE Industrial Electronics Society (IECON'04), Pusan, Korea, Nov 2-6, 2004.
- 163. Z. Han and **X. Yu**, "A model free adaptive control and its application," Proceedings of 2nd IEEE Conference on Industrial Informatics (INDIN'04), Berlin, June 2004.
- 164. J. Lu, G. Chen, **X. Yu,** and H. Leung, "Generating multi-scroll chaotic attractors via switching control," Proceedings of the 5th Asian Control Conference, 20-23 July 2004.
- 165. D. Yue, Q. Han, and **X. Yu**, "Hinf non-fragile controller design for uncertain descriptor systems with time varying discrete and distributed delays," Proceedings of the 5th Asian Control Conference (ASCC'04), 20-23 July 2004.
- 166. Z.-H. Guan, D.J. Hill, X. Shen, and **X. Yu**, "Synchronization of chaotic systems via hyprid impulsive and switching control," Proceedings of the 5th Asian Control Conference (ASCC'04), 20-23 July 2004.
- 167. **X. Yu**, L. Yang, and G. Chen, "Periodic discretization behaviours in a bang-bang type switching control system," Proceedings of the 5th Asian Control Conference (ASCC'04), 20-23 July 2004.
- 168. Z. Man, **X. Yu**, X. Zhang, and S. Gao, "A new dynamical fuzzy modelling and control for SISO complex systems," Proceedings of the 29th Annual Conference of the IEEE Industrial Electronics Society (IECON'03), pp. 2995-3000, Roanoke, USA, November 2003.
- 169. S. Yu, **X. Yu,** and M. Efe, "Modelling-error based adaptive fuzzy sliding mode control for trajectory-tracking of nonlinear systems," Proceedings of the 29th Annual Conference of the IEEE Industrial Electronics Society (IECON'03), pp. 3001-3006, Roanoke, USA, November 2003.
- 170. Y. Feng, X. Chen, X. Yang, and **X. Yu**, "Model of a TDI line scan camera and its electronics," Proceedings of the 29th Annual Conference of tie IEEE Industrial Electronics Society (IECON'03), pp. 2215-2220, Roanoke, USA, November 2003.
- 171. Y. Wang, Y. Feng, **X. Yu,** and N. Zhang, "Terminal sliding mode control of MIMO linear systems with unmatched uncertainties," Proceedings of the 29th Annual Conference of tie IEEE Industrial Electronics Society (IECON'03), pp. 1146-1151, Roanoke, USA, November 2003.

- 172. J. Lu, G. Chen, **X. Yu,** and S. Zhang, "Dynamical behaviours of a unified chaotic system," DCDIS Proceedings: Intelligent and Complex Systems, pp. 115-124, Watam Press Waterloo, 2003.
- 173. S. Gao, Z. Man, and **X. Yu**, "Stabilization of T-S fuzzy systems using LTV system theory," Proceedings of IEEE International Symposium on Intelligent Control (ISIC'03), pp. 122-127, Houston, October 2003.
- 174. S. Yu, **X. Yu,** and R. Stonier, "Continuous finite time control for robotic manipulators with terminal sliding modes," Proceedings of the Sixth International Conference of Information Fusion, vol. 2, pp. 1433-1440, July 2003.
- 175. M.O. Efe, O. Kaynak, C. Unsal, and **X. Yu**, "Sliding mode control of a class of uncertain systems," Proceedings of 2003 IEEE Conference on Control Applications (CCA'03), June 23-25, 2003.
- 176. F. Han, **X. Yu**, G. Chen, W. Liu, and Y. Feng, "Generation of milti0scroll chaos using second order linear systems with hysteresis," Proceedings of the 2003 International Symposium, on Circuits and Systems (ISCAS'03), vol. 3, 25-28 May 2003.
- 177. J. Lu, **X. Yu,** and G. Chen. "Switching control for multi-scroll chaos generation: An overview", Proceedings of International Conference Physics and Control, pp. 420-428, Saint Petersburg, Russia, August 20-22, 2003.
- 178. Y. Wu, J. Gu, and **X. Yu**, "Finite time sliding mode control for time delay systems," Proceedings of 4th World Congress on Intelligent Control and Automation (IFAC'02), pp. 872-877, Shanghai, June 2002
- 179. S. Yu and **X. Yu**, "Robust global fast terminal sliding mode controller for rigid robotic manipulators," Proceedings of IEEE TENCON'02, pp. 1335-1338, October 2002.
- 180. F. Han, L. Sun, Y. Feng, P. Wang, and **X. Yu**, "Synchronization of the Duffing oscillator by using terminal sliding mode control," Proceedings of IEEE TENCON'02, October 2002.
- 181. A. Chiou and **X. Yu**, "Prediction of weed dispersal using fuzzy logic on spatial image," Proceedings of 1st International Conference on Fuzzy Systems and Knowledge Discovery (FSKD'02), vol. 2, pp. 524-528, Singapore, November 2002.
- 182. A. Chiou and **X. Yu**, "P-Expert: Framework for fuzzy expert advisory system for the control and management of parthenium weed," Proceedings of 1st International Conference on Fuzzy Systems and Knowledge Discovery (FSKD'02), vol. 2, pp. 136-140, Singapore, November 2002.
- 183. **X. Yu**, R. Dodd, R. Broadfoot, and A. Chiou, "Development of a smart supervisory control system for pan-stage operations in sugar factories," Proceedings of ItiRA02 Using IT: Make IT Happen, pp. 368-375, Rockhampton, Australia, August 2002.
- 184. A. Chiou, **X. Yu,** and K. Adsett, "The design of an intelligent system in unifying diverse resource components into manageable framework," Proceedings of ItiRA02 Using IT: Make IT Happen, pp. 270-278, Rockhampton, Australia, August 2002
- 185. W. Li and **X. Yu**, "Applying an evolutionary algorithm to Web search: the methodology of Evagent," Proceedings of the 2002 International Conference on Artificial Intelligence, pp927-933, Las Vegas, USA, June 2002.
- 186. **X. Yu** and G. Chen, "Discretization analysis of a class of second order SMC systems," Proceedings of the 7th International Workshop on Variable Structure Systems (VSS'02), pp. 77-86, Sarajevo, Bosnia, July 2002.
- 187. Y. Feng, X. Zheng, and **X. Yu**, "Terminal sliding mode decomposed control of high dimensional multivariable linear uncertain systems," Proceedings of the 7th International Workshop on Variable Structure Systems (VSS'02), pp. 215-224, Sarajevo, Bosnia, July 2002.
- 188. S. Chong, Y. Feng, **X. Yu,** and Z. Man, "Robust controller design for a single link flexible manipulator," Proceedings of the 7th International Workshop on Variable Structure Systems (VSS'02), pp. 309-318, Sarajevo, Bosnia, July 2002.
- 189. **X. Yu**, G. Chen, and J.-Q. Fang, "Stabilizing halo-chaos by variable structure control," Proceedings of the 7th International Workshop on Variable Structure Systems (VSS'02), pp. 345-352, Sarajevo, Bosnia, July 2002.
- 190. Y. Tian and **X. Yu**, "A backstepping iterative learning control," Proceedings of the 15th IFAC World Congress (IFAC'02), Barcelona, Spain, July 2002.
- 191. Q.-L. Han and **X. Yu**, "Improved estimate of time-delay for stability of linear systems," Proceedings of the 15th IFAC World Congress (IFAC'02), Barcelona, Spain, July 2002.

- 192. Q.-L. Han and **X. Yu**, "A discretized Lyapunov functional approach to stability of linear delay differential systems of neural type," Proceedings of the 15th IFAC World Congress, Barcelona (IFAC'02), Spain, July 2002.
- 193. Y. Wu, **X. Yu,** and Z. Man, "A finite time variable structure controller for robot manipulator", Proceedings of the 15th IFAC World Congress (IFAC'02), Barcelona, Spain, July 2002.
- 194. Y. Wu, J. Gu, and **X. Yu**, "Finite time sliding mode control for time delay systems," Proceedings of the 4th World Congress on Intelligent Control and Automation (WCICA'02), pp. 872-877, June 2002.
- 195. S. Yu, **X. Yu,** and Z. Man, "A fuzzy neural network approximator with fast terminal sliding mode and its applications," Proceedings of the 9th International Conference on Neural Information Processing, pp. 1257-1261, November 2002.
- 196. **X. Yu**, Z. Man, Y. Feng, and Z. Guan, "Nonsingular terminal sliding mode control of a class of nonlinear uncertain systems", Proceedings of the 15th IFAC World Congress (IFAC'02), Barcelona, Spain, July 2002.
- 197. M. O. Efe, O. Kaynak, **X. Yu,** and S. Iplicki, "Cost effect computational intelligent control An augmented switching manifold approach," Proceedings of the 27th Annual Conference of the IEEE Industry Electronics Society (IECON'01), pp. 31-35, 2001.
- 198. M. O. Efe, O. Kaynak, and B. M. Wilamowski, "Radial basis function neural networks in variable structure control of a class of biochemical processes," Proceedings of the 27th Annual Conference of the IEEE Industry Electronics Society (IECON'01), pp. 31-35, 2001.
- 199. A. Chiou and **X. Yu**, "Prediction of parthenium weed infestation using fuzzy logic applied to Geographic Information System (GIS) spatial image", Proceedings of 10th IEEE International Conference on Fuzzy Systems, (FUZZY'01), vol. 3, Melbourne, Dec 2001.
- 200. Y. Song, **X. Yu**, G. Chen, and J.-X. Xu, "A repetitive time delayed learning control for chaotic systems," Proceedings of 3rd IFAC Workshop on Time Delay Systems, Santa Fe, New Mexico, U.S.A. Dec 2001.
- 201. A. Chiou, **X. Yu,** and K. Adsett, "Parthenium weed problem in regional Queensland: The role of an expert advisory system," Proceedings of ITiRA'01, September 2001.
- 202. **X. Yu**, "Discretizing sliding mode control: From chattering to unstable motion," Proceedings of IEEE Conference on Decision and Control (CDC'01), pp. 914-919, Orlando, Dec 2001
- 203. Y. Song, **X. Yu**, J.-X. Xu, and G. Chen, "Time delayed chaos control with repetitive learning," Proceedings of IEEE Conference on Decision and Control (CDC'01), pp. 4915-3919, Orlando, Dec 2001.
- 204. Y. Feng, **X. Yu,** and Z. Man, "Adaptive fast terminal sliding mode tracking control of robotic manipulators," Proceedings of IEEE Conference on Decision and Control (CDC'01), pp. 4021-4026, Orlando, Dec 2001
- 205. Wu, **X. Yu,** and L. Liu, "Fuzzy penalty function approach for constrained function optimization with evolutionary algorithms," Proceedings of International Conference on Neural Information Processing, pp. 299-304, Shanghai, China, November 14-18, 2001.
- 206. M.O. Efe, O. Kaynak, **X. Yu,** and B. M. Wilamowski, "Sliding mode control of nonlinear systems using Gaussian radial basis function neural networks," Proceedings of INNS-IEEE Int. Joint Conf. on Neural Networks (IJCNN'01), July 14 19, Washington, DC, U.S.A., pp. 474-479, 2001.
- 207. M. Jiang and **X. Yu**, "Terminal attractor based backpropagation learning for feedforward neural networks," Proceedings of 2001 IEEE International Symposium on Circuits and Systems (ISCAS'01), vol. III, pp. 711-714, Sydney May 2001.
- 208. **X. Yu**, M. O. Efe, and O. Kaynak, "A backpropagation framework for feedforward neural networks," Proceedings of 2001 IEEE International Symposium on Circuits and Systems (ISCAS'01), vol. III, pp. 700-702, Sydney May 2001.
- 209. Y. Feng, **X. Yu,** and Z. Man, "Non singular terminal sliding mode control and its applications to robot manipulators," Proceedings of 2001 IEEE International Symposium on Circuits and Systems (ISCAS'01), vol. III, pp. 545-548, Sydney May 2001.
- 210. Y. Wu, **X. Yu,** and L. Liu, "A fuzzy penalty function approach for constrained function optimisation problems," Proceedings of 2001 International Conference on Neural Information Processing (ICONIP'01), Shanghai, China, November 2001.

- 211. **X. Yu**, G. Ledwich, and Y. Xia, "Switching control of linear systems with actuators," Proceedings of the IASTED International Conference on Modelling and Simulation, pp. 272-275, Pittsburgh, May 2000.
- 212. X.F. Wang, G. Chen, and X.Yu: "Chaotification of continuous-time systems via time-delay feedback," Proceedings of the 2nd International Conference on Control of Oscillations and Chaos, St. Petersburg, Russia, vol. 2, pp. 213-216, July 5-7, 2000.
- 213. **X. Yu**, G. Chen, Y. Xia, Y. Song, and Z Cao, "A generalised OGY method for controlling higher order chaotic systems," Proceedings of the 39th IEEE Conference on Decision and Control (CDC'00), pp. 2054-2059, Sydney, December 2000.
- 214. **X. Yu** and S. Yu, "Invariant sliding sectors for discrete variable structure control design," Proceedings of 39th IEEE Conference on Decision and Control (CDC'00), pp. 2605-2606, Sydney, December 2000.
- 215. Y Song and X Yu, "Multi-parameter modulation for secure communication via Lorenz chaos," Proceedings of 39th IEEE Conference on Decision and Control (CDC'00), pp. 42-46, Sydney, December 2000.
- 216. S. Yu, **X. Yu,** and M. Zhihong, "Global terminal sliding mode control design," Proceedings of 39th IEEE Conference on Decision and Control (CDC'00), pp. 2198-2203, Sydney, December 2000.
- 217. **X. Yu** and Z Man, "Fast terminal sliding mode control", Proceedings of 2000 Asian Control Conference (ASCC'00), pp. 1694-1699, Shanghai, Jul 2000.
- 218. Y. Wu X. Xie, and X Yu, "High-gain controller with memory function for uncertain singularly perturbed systems," Proceedings of 2000 Asian Control Conference (ASCC'00), pp. 995-1000, Shanghai, Jul 2000.
- 219. M. Zhihong, **X. Yu,** and X. Zhang, "A new sliding mode control for a class of chaotic systems" Proceedings of 2000 Asian Control Conference (ASCC'00), pp.1700-1702, Shanghai, China, July 2000.
- 220. Y.-P. Tian and **X. Yu**, "Time-delayed feedback control of chaotic systems based on an optimal principle", Proceedings of 2000 Asian Control Conference (ASCC'00), pp.989-994, Shanghai, China, July 2000.
- 221. B. Wu and **X. Yu**, "Evolutionary fuzzy system approach for dynamic modelling," Proceedings of 3rd Australian-Japan Joint Workshop on Intelligent and Evolutionary Systems, pp. 124-130, 23-25 November 1999.
- 222. M. Chen and X. Yu, "Evolutionary strategies for internet search agents," Proceedings of 3rd Australian-Japan Joint Workshop on Intelligent and Evolutionary Systems, pp. 240-245, 23-25 November 1999.
- 223. **X. Yu**, "Periodic behaviours in a digital filter with two's complement arithmetic," Proceedings of the 5th International Symposium on Signal Processing and its Applications, vol. 2, pp. 399-402, Brisbane Australia, August 1999.
- 224. B. Wu and **X. Yu**, "Evolutionary design of fuzzy gain scheduling controllers," Proceedings of Congress on Evolutionary Computation (CEC'99), vol. 3, pp. 2139-2144, Washington, July 1999.
- 225. **X. Yu**, Y. Wu, and Z. Man, "Finite time output tracking control of nonlinear dynamic systems with nonminimum phase," Proceedings of the 14th IFAC World Congress on Automatic Control (IFAC'99), pp. 383-387, Beijing, July 1999.
- 226. Z. Man, **X. Yu**, and F. Mei, "Terminal sliding mode control for SISO nonlinear systems with new fuzzy model," Proceedings of the 14th IFAC World Congress on Automatic Control (IFAC'99), pp. 359-362, Beijing, July 1999.
- 227. M. Fei, Z. Man, and **X. Yu**, "Sliding mode control signal analysis," Proceedings of the 14th IFAC World Congress on Automatic Control (IFAC'99), 349-353, Beijing, July 1999.
- 228. B. Wu and **X. Yu**, "Evolutionary Programming approach for constraint optimization problems," Proceedings of the 2nd Asia-Pacific Conference on Simulated Evolution and Learning (SEAL'98), vol. 2, 1998.
- 229. **X. Yu** and G. Chen, "Controlling chaotic systems to unstable periodic orbits," Proceedings of the 37th IEEE Conference on Decision and Control (CDC'98), pp. 1942-1945, Tampa FL, December 1998.
- 230. G. Lu, Y. Zheng, C. Zhang, and **X. Yu**, "Global asymptotic stabilization of MIMO bilinear systms with undamped natural response," Proceedings of the 37th IEEE Conference on Decision and Control (CDC'98), pp. 1989-1994, Tampa FL, December 1998.

- 231. Y. Wu and **X. Yu**, "Adaptive control of linear MIMO systems using backstepping approach," Proceedings of 1998 American Control Conference (ACC'98), pp.599-603, Philadephia, June 1998.
- 232. **X. Yu**, Y. Wu, and X. Chu, "Controller design for linear time varying systems by backstepping," Proceedings of 1998 American Control Conference (ACC'98), pp. 3726-3732, Philadephia, June, 1998.
- 233. B. Wu and **X. Yu**, "Enhanced evolutionary programming for function optimization," Proceedings of 1998 International Conference on Evolutionary Computation (CEC'98), pp. 695-698, Alaska, May 1998.
- 234. B. Wu and **X. Yu**, "Evolutionary programming based modelling scheme for fuzzy systems," Proceedings of 1st Australian-Japan Joint Workshop on Intelligent and Evolutionary Systems, X. Yao, M. Gen, Y. Tsujimura and R.I. McKay (Eds), pp. 150-157, Canberra, Australia, November 1997.
- 235. **X. Yu**, Y. Wu, S.M.M. Rahman, and Z. Man, "Adaptive hysteresis method of finite time tracking for uncertain nonlinear systems and its application," Proceedings of International Conference on Computational Intelligence and Multimedia Applications, pp. 167-172, Gippsland, Vic, Australia, February 1998.
- 236. F. Mei, Z. Man, T. Nguyen, and **X. Yu**, "A sliding mode control system with fuzzy logic controller," Proceedings of International Conference on Computational Intelligence and Multimedia Applications, pp. 516-524, Gippsland, Vic, Australia, February 1998.
- 237. S.M.M. Rahman, **X. Yu**, M.S. Rahman, Y. Wu, and Z. Man, "Designing a neuro-controller using Lyapunov approach," Proceedings of International Conference on Computational Intelligence and Multimedia Applications, pp. 300-305, Gippsland, Vic, Australia, February 1998.
- 238. **X. Yu**, W. Zheng, B. Wu, and X. Yao, "Solving constrained optimization problems with new penalty function approach using genetic algorithms," Proceedings of 1997 International Conference on Neural Information Processing and Intelligent Information Systems, pp.416-419, Dunedin, New Zealand, November 1997.
- 239. S.M.M. Rahman, **X. Yu,** and Z. Man, "System identification problems via a single layer feedforward neural network," Proceedings of 1997 International Conference on Neural Information Processing and Intelligent Information Systems, pp.959-962, Dunedin, New Zealand, November 1997.
- 240. S.M.M. Rahman, **X. Yu,** and G. Martin, "Neural network approach for data mining," Proceedings of 1997 International Conference on Neural Information Processing and Intelligent Information Systems, pp.851-854, Dunedin, New Zealand, November 1997.
- 241. Y. Wu and **X. Yu**, "Adaptive control design for linear time varying systems," Proceedings of 1997 International Conference on Neural Information Processing and Intelligent Information Systems, pp.963-966, Dunedin, New Zealand, November 1997.
- 242. Y. Wu and **X. Yu**, "Adaptive conrol design for linear multivariable systems via backstepping approach," Proceedings of 1997 International Conference on Neural Information Processing and Intelligent Information Systems, pp.955-958, Dunedin, New Zealand, November 1997.
- 243. Y. Wu and **X. Yu**, "Variable structure control design for systems with unmodeled dynamics and disturbances in input and output channels," Proceedings of 1997 Australian Control Conference (CONTROL'97), pp. 554-558, Sydney, July 1997.
- 244. **X. Yu** and Y. Wu, "Adaptive control of uncertain nonlinear systems in generalised parametric-strict-feedback form," Proceedings of 1997 Australian Control Conference (CONTROL'97), pp. 551-553, Sydney, July 1997.
- 245. R.J. Stonier, P. Keleher, and **X. Yu**, "Finite time switching control forarticulated robots," Proceedings of 1997 Australian Control Conference (CONTROL'97), pp. 294-299, Sydney, July 1997.
- 246. **X. Yu**, Z. Man, and Y. Wu, "Terminal sliding modes with fast transient performance," Proceedings of 36th International Conference on Decision and Control (CDC'97), pp. 962-963, San Diego, December 1997.
- 247. **X. Yu**, "Tracking inherent periodic orbits in chaotic systems via adaptive self-control," invited paper, Proceedings of 36th International Conference on Decision and Control (CDC'97), pp. 401-405, San Diego, December 1997.

- 248. Z. Man, Q. P. Ha, and **X. Yu**, "A study of uncertainty bound for rigid robot control systems," Proceedings of the 2nd Asian Control Conference (ASCC'97), vol. I, pp. 867-870, Seoul Korea, July 1997.
- 249. Z. Man, Q. P. Ha, and **X. Yu**, "Adaptive control using fuzzy basis function expansion for SISO linearizable nonlinear systems," Proceedings of the 2nd Asian Control Conference (ASCC'97), vol. III, pp. 695-698, Seoul Korea, July 1997.
- 250. Y. Xia, **X. Yu,** and W. Oghanna, "Fast AC motor position control with variable switching plane controller," Proceedings of 2nd International Power Electronics and Motion Control Conference, China, 3-6 November, 1997.
- 251. Z. Man and **X. Yu**, "Robust sliding mode control of vibrational systems," Proceedings of the 2nd Asian Control Conference (ASCC'97), Vo. I, pp. 549-552, Seoul Korea, July 1997.
- 252. **X. Yu** and Z. Man, "Model reference adaptive control of MIMO systems with terminal sliding modes," invited paper, Proceedings of the 2nd Asian Control Conference (ASCC'97), vol. I 385-388, Seoul Korea, July 1997.
- 253. **X. Yu** and G. Ledwich, "Multi-machine power systems stabilization using variable series compensation," Proceedings of the 2nd Asian Control Conference (ASCC'97), vol. III, pp. 299-302, Seoul Korea, July 1997.
- 254. Y.Z. Zheng and **X. Yu**, "Tracking signals in continuous time chaotic systems," Proceedings of the 2nd Asian Control Conference (ASCC'97), vol. III, pp. 651-654, July 1997.
- 255. **X. Yu**, Y. Xia, G. Ledwich, and W. Oghanna,"Finite time adaptive switching control based on LQR design," Proceedings of the 2nd Asian Control Conference (ASCC'97), vol. I, pp. 369-372, Seoul Korea, July 1997.
- 256. B. Wu and **X. Yu**, "A fuzzy model identification approach," Proceedings of International Conference on Computational Intelligence and Multimedia Applications, pp.181-184,Gold Coast, Australia, 1997.
- 257. **X. Yu** and Z. Man, "A neural model reference controller," Proceedings of Int. Conference on Computational Intelligence and Multimedia Applications (ICCIMA'97), pp.296-300, Gold Coast, Australia, 1997.
- 258. Z. Man, **X. Yu**, N. Ritter and J. Copper, "A robust tracking controller using fuzzy basis function networks for a class of nonlinear systems," Proceedings of the 4th International Conference on Control, Automation, Robotics and Vision (ICARV'96), pp. 2189-2193, Singapore, December 1996
- 259. Z. Man, **X. Yu**, N. Ritter, and J. Copper, "A robust adaptive terminal sliding mode control for rigid robotic manipulators," Proceedings of the 4th International Conference on Control, Automation, Robotics and Vision (ICARV'96), pp. 508-512, Singapore, December 1996.
- 260. R.J. Stonier and **X. Yu**, "Finite time switching control for collision-avoidance of mobile robots," Proceedings of the 4th International Conference on Control, Automation, Robotics and Vision (ICARV'96), pp.1140-1144, Singapore, December 1996.
- 261. S.S. Chong, **X. Yu,** and Z. Man, "A robust adaptive sliding mode controller for robotic manipulators," Proceedings of 1996 IEEE International Workshop on Variable Structure Systems (VSS'96), pp. 31-35, Tokyo, Japan, December 1996.
- 262. **X. Yu** and Z. Man, "On finite time mechanism: Terminal sliding modes," Proceedings of 1996 IEEE International Workshop on Variable Structure Systems (VSS'96), pp. 164-168, Tokyo, Japan, December 1996.
- 263. **X. Yu**, "Controlling chaos using variable structure," Proceedings of the 35th IEEE Conference on Decision and Control (CDC'96), pp. 2167-2168, Kobe, Japan, December 1996.
- 264. Z. Man and **X. Yu**, "Terminal sliding mode control of MIMO linear systems," Proceedings of the 35th IEEE Conference on Decision and Control (CDC'96), pp. 4619-4625, Kobe, Japan, December 1996.
- 265. Z. Man and **X. Yu**, "A RBF neural network based adaptive control for a class of nonlinear systems," Proceedings of 1996 IMACS-IEEE Multi Conferences: Symposium on Robotics and Cybernetics, pp. 829-833, Lille, France, July 1996.
- 266. Z. Jiang, J. Zhang, and **X. Yu**, "A DSP based multi-user type single phase electricity meter with automatic meter readings," Proceedings of 1996 IMACS-IEEE Multi Conferences: Symposium on Control, Optimization and Supervision, vol. 2, pp. 733-737, Lille, France, July 1996.

- 267. **X. Yu** and Z. Man, "Finite time output tracking problem using terminal sliding modes," Proceedings of 1996 IMACS-IEEE Multi Conferences: Symposium on Control, Optimization and Supervision, vol. 1, pp. 28-31,Lille, France, July 1996.
- 268. Y. Xia, **X. Yu,** and W. Oghanna, "Switching control strategy for the inverter-fed induction motor," Proceedings of 1996 IMACS-IEEE Multi Conferences: Symposium on Control, Optimization and Supervision, vol. 2, pp. 768-772, Lille, France, July 1996.
- 269. **X. Yu**, Z. Man, and B. Wu, "Adaptive sliding mode control for fuzzy systems," Proceedings of 1996 IMACS-IEEE Multi Conferences: Symposium on Control, Optimization and Supervision, vol. 1, pp.47-52, Lille, France, July 1996.
- 270. **X. Yu**, and G. Ledwich, "Multi-machine power systems stabilization using variable series compensation," Proceedings of the 13th IFAC World Congress on Automatic Control (IFAC'96), vol. F, pp.217-222, San Francisco, USA, July 1996.
- 271. **X. Yu**, "Discretisation chaos in an oscillatory system under sliding mode control with finite switching values," Proceedings of the 13th IFAC World Congress on Automatic Control (IFAC'96), vol. 0, pp. 241-246, San Francisco, USA, July 1996.
- 272. B. Wu and **X. Yu**, "Fuzzy modelling using Genetic Algorithms," Proceedings of the First International Discourse on Fuzzy Logic and The Management of Complexity, pp.273-277, Sydney, January 1996.
- 273. B. Wu and **X. Yu**, "Evolutionary computation solution of a hoist scheduling program," Proceedings of the First International Discourse on Fuzzy Logic and The Management of Complexity, pp.270-272, 15-18 January 1996, Sydney, 1996.
- 274. Z. Man, **X. Yu**, K. Ashraghian, and M. Palaniswami, "An adaptive supervisory controller for nonlinear fuzzy logic control systems," Proceedings of the 3rd Australian & New Zealand Conference on Intelligence Information Systems, pp. 198-203, December 1995.
- 275. Z. Man, and **X. Yu**, "A robust model reference adaptive variable structure control scheme," Proceedings of 1995 Australian Control Conference (CONTROL'95), pp. 453-457, Melbourne, Australia, 23-25 October 1995.
- 276. Z. Man, **X. Yu**, and K. Ashraghian, "A robust adaptive sliding mode tracking control using a RBF neural network for robotic manipulators," Proceedings of IEEE International Conference on Neural Networks (IJCNN'95), pp. 2403-2408, December 1995.
- 277. **X. Yu**, and Z. Man, "Adaptive learning in a neural network using sliding modes," Proceedings of IEEE International Conference on Neural Networks and Signal Processing (ICNNSP'95), pp.709-712, Nanjing, China, December 1995.
- 278. **X. Yu**, and J.-X. Xu, "Adaptive signal derivative estimation using terminal sliding modes," Proceedings of IEEE International Conference on Neural Networks and Signal Processing (ICNNSP'95), pp.182-184, Nanjing, China, December 1995.
- 279. G. Ledwich, J. Fernandez-Vargas, and **X. Yu**, "Switching control of multi-machine power systems," Stockholm Power Tech, Vol:Invited Sessions, pp.138-142, June 1995.
- 280. **X. Yu**, "Controlling Lorenz Chaos," Proceedings of 1995 Australian Control Conference (CONTROL'95), Melbourne, Australia, pp. 407-409, October 1995.
- 281. **X. Yu** and Z. Man, "On the adaptation law for estimation of upper bound of uncertainty for sliding mode control," Proceedings of 1995 Australian Control Conference (CONTROL'95), Melbourne, Australia, pp. 103-105, October 1995.
- 282. M. Mohammadian, **X. Yu** and R.J. Stonier, "Tuning and optimization of membership functions of fuzzy logic controllers by genetic algorithms," Proceedings of 3rd International Workshop of Robot and Human Communication (RWRHC'95), Nagoya, Japan, pp.362-367, July 1995.
- 283. **X. Yu**, G. Ledwich and H. Sira-Ramirez, "An adaptive switching control strategy for the stabilization of a power system," Proceedings of the 3rd International Workshop on Robust Control via Variable Structure and Lyapunov Techniques (VSS'94), pp. 336-341, Italy, September 1994.
- 284. **X. Yu**, "Sampling period selection for digital variable structure control," Proceedings of IFAC 12th World Congress on Automatic Control (IFAC'93), vol. 2, pp.357-360, Sydney, July 1993.
- 285. **X. Yu**, "Conditions for the existence of discrete-time sliding mode," Invited paper, Proceedings of IFAC 12th World Congress on Automatic Control (IFAC'93), vol.10, pp.47-50, Sydney, July 1993.
- 286. M. Mohammadian, **X. Yu,** and J.D. Smith, "A case study of knowledge acquisition: from connectionist learning to an optimized fuzzy knowledge base," Proceedings of 2nd IEEE Int.

- Workshop on Emerging Technologies & Factory Automation (ETFA'93), pp. 106-111, Palm Cove Cairns, Australia, September 1993.
- 287. **X. Yu**, "Sampling period selection for the digital implementation of a variable structure control," Proceedings of the 32nd IEEE Conference on Decision and Control (CDC'93), pp.900-902, USA, December 1993.
- 288. **X. Yu**, "Digital sliding mode control of linear systems," Proceedings of the 2nd IEEE Int. Workshop on Variable Structure and Lyapunov Control of Uncertain Dynamical Systems (VSS'92), pp.191-196, Sheffield, UK, September 1992.
- 289. **X. Yu**, "Sliding mode model-following control of nonlinear dynamic systems," Proceedings of the 2nd IEEE International Workshop on Variable Structure and Lyapunov Control of Uncertain Dynamical Systems (VSS'92), pp.197-201, Sheffield, UK, September 1992.
- 290. **X. Yu**, "Chaos in discrete variable structure systems," Proceedings of the 31st IEEE Conference on Decision and Control (CDC'92), pp.1862-1863, vol.2, Arizona, December 1992.
- 291. **X. Yu** and R.B. Potts, "A class of discrete variable structure systems," Proceedings of the 30th IEEE Conference on Decision and Control (CDC'91), vol.2, pp.1367-1372, Brighton, U.K., December 1991.
- 292. **X. Yu** and R.B. Potts, "Discrete VSS control for a cylindric robot," Proceedings of the 1st IEEE International Workshop on Variable Structure Systems (VSS'90), Sarajevo, Yugoslavia, pp.98-109, March 1990.
- 293. X.G. Cheng and **X. Yu**, "A new model of discrete event dynamic systems," Proceedings of International Conference on Systems Engineering (ICSE'88), Beijing, 1988.
- 294. X.G. Cheng and **X. Yu**, "Modelling and analysis of discrete event dynamic systems," Proceedings of IEEE International Conference on Systems, Man and Cybernetics (SMC'88), vol.2, pp.998-1001, Beijing/Shenyan, 1988.
- 295. **X. Yu** and C.-B. Feng, "Design of variable structure control systems," Proceedings of the 8th IFAC Symposium on Identification and System Parameter Estimation, vol.2, pp.928-931, Beijing, 1988.
- 296. **X. Yu** and C.-B. Feng, "A Lyapunov approach for the design of variable structure systems," Proceedings of the 10th IFAC World Congress on Automatic Control (IFAC'87), vol.8, pp.321-325, Munich, 1987.