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**PUBLICATIONS: Books, Book Chapters and Journal papers**

**Books/Monographs**

1. **WANG, Danwei**, YU, Ming, LOW, Chang Boon, and AROGETI, Shai, "Model-based Health Monitoring of Hybrid Systems", Springer New York, June 2013, ISBN: 978-1-4614-7368-8 (Print) 978-1-4614-7369-5 (Online), DOI10.1007/978-1-4614-7369-5.
2. **WANG, Danwei**, YE, Yongqiang, and ZHANG, Bin, "Practical Iterative Learning Control with Frequency Domain Design and Sampled Data Implementation", in Advance Industrial Control Series, Springer New York, June 2014, ISBN: 978-981-4585-59-0, ISBN 978-981-4585-60-6 (eBook), DOI 10.1007/978-981-4585-60-6, ISSN 1430-9491, ISSN 2193-1577 (electronic).

**Book Chapters**

1. MCCLAMROCH, N.Harris, and **WANG, Danwei**, "Feedback Stabilization and Tracking of Constrained Robots", *ROBOT CONTROL: Dynamics, Motion Planning, and Analysis*, Part VII, Force and Impedance Control, Editor M.W. Spong and F.L.Lewis, IEEE Press, 1992, pp 296-303.
2. **WANG, Danwei**, PHAM, Minhtuan, and PHAM, Thuang Cat, "Simulation Study of Vehicle Platooning Maneuvers with Full-State Tracking Control", *Modeling, Simulation and Optimization of Complex Processes*, Editors: H. G. Bock, E. Kostina, H.X. Phu, and R. Rannacher, Springer, 2004, pp. 539-548.
3. YE, Cang, and **WANG, Danwei**, "Behavior Learning and Behavior Fusion in Autonomous Navigation of Mobile Robots", Book Chapter (Invited), *Mobile Robots: New Research*, Editor: John X. Liu, Nova Science Publishers, ISBN: 1-59454-359-3, 2005, pp. 221-258.

4. **WANG, Danwei**, and PHAM, Minhtuan, "Unified Control Design for Autonomous Car-Like Vehicle Tracking Maneuvers", Book Chapter (invited), *Autonomous Mobile Robots: Sensing, Control, Decision-Making, and Applications*, Editors: S.S. Ge and F.L. Lewis, CRC Press, May 2006, ISBN: 0-8493-3748-8, pp. 295-329.
5. YU, Ming, LUO, Ming, AROGETI, Shai, **WANG, Danwei**, and ZHANG, Xinzheng, "Fault and mode switching identification for hybrid systems with application to electro-hydraulic system in vehicles", Book Chapter (invited), *Intelligent Unmanned Systems: Theory and Applications. Studies in Computational Intelligence (SCI) series*, Editors: Budiyono, A., Bambang, R and Joelianto, E., Springer-Verlag, Jan 2009, ISBN 978-3-642-00263-2, pp. 257-276.
6. **WANG, Danwei** and CHEN, Xiaoqi, "Optical Measurement for Robotic Grinding and Polishing of Turbine Vanes", Book Chapter (invited), *Mechatronic and Innovative Applications*, editor: Rochdi Merzouki, Bentham e-Book, August 2012. eISBN: 978-1-60805-441-1, 2012, ISBN: 978-1-60805-440-4

### **Guest Editors for special issues**

1. Editors: **WANG, Danwei**, GE, Sam SZ, and LAUGIER, Christian, Special issue on Advances in Autonomous Vehicle Technologies for Urban Environment, *International Journal of Vehicle Autonomous System*, Vol 6, Nos. 1/2, 2008.
2. Editors: **WANG, Danwei**, MARTINET, Philippe, and IAGNEMMA, Karl, Special Issue on Vehicle-terrain interaction for mobile robots, *Journal of Field Robotics*, Vol.27, No.2, March/April 2010.

### **Patents**

1. Country: US Provisional; Application Number: 61/584,881; Title: Distributed Traffic Signal Control for Maximum Network Throughput; Filing Date: 10 January 2012.

2. SIMTech: TD-E-13-013, Title: Method and System for Detection and Isolation of Faults for Semiconductor Switches in a three-phase PWM voltage source inverter, Inventors: Marjan Alavi, Ming Luo and Danwei Wang, Filing date: 12 August 2013, Singapore.

## Journal Publications

1. MCCLAMROCH, N.Harris, and **WANG, Danwei**, "Feedback Stabilization and Tracking of Constrained Robots", *IEEE Transaction on Automatic Control*, Vol. 33, No5, May, 1988, pp. 419-426.
2. MCCLAMROCH, N.Harris, and **WANG, Danwei**, "Linear Feedback Control of Position and Contact Force for a Nonlinear Constrained Mechanism", *ASME, J. of Dynamic Systems, Measurement and Control*, Vol 112, No4, Dec 1990, pp. 640-645.
3. **WANG, Danwei**, "Linear Feedback Control of Position and Contact Force for a Constrained Cylindrical Robot", *The EEE Journal*, Vol. 3, No1, July 1991, pp. 22-27.
4. **WANG, Danwei** and SOH, Yeng Chai, "Regulation of Flexible-Joint Manipulators under Gravity", *Special issue in Manufacturing Engineering of IES Journal*, Vol. 32, NO.4, June 1992, pp. 73-79.
5. **WANG, Danwei**, and MCCLAMROCH, N.Harris, "Position and Force Control for Constrained Manipulator Motion: Lyapunov's Direct Approach", *IEEE Trans. Robotics and Automation*, Vol.9, NO.3, June 1993, pp. 308-313.
6. YAO, Bin, CHAN, S.P. and **WANG, Danwei**, "Unified Approach to Variable Structure Control of Robot Manipulators", *IEEE Transactions on Automatic Control*, Vol.39, NO.2, Feb. 1994, pp. 371-376.
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9. **WANG, Danwei** and MCCLAMROCH, N. Harris, "Stability Analysis of the Equilibrium of a Constrained Mechanical System", *International Journal of Control*, 1994, Vol. 60, No. 5, pp. 733-746.
10. YAO, Bin, CHAN, Sai Piu, and **WANG, Danwei**, "Variable Structure Adaptive Motion and Force Control of Robot Manipulators", *Automatica*, Vol. 30, No. 9, September, 1994, pp. 1473-1477.
11. **WANG, Danwei**, SOH, Yeng Chai, and CHEAH, Chien Chern, "Robust Motion and Force Control of Constrained Manipulators by Learning", *Automatica*, Vol.31, NO.2, Feb. 1995, pp. 257-262.
12. CHEAH, Chien Chern, **WANG, Danwei**, and SOH, Yeng Chai, "Learning Control of Motion and Force Constrained Robotic Manipulators", *International Journal of Robotics and Automation*, Vol.10, No.3, 1995, pp. 79-88.
13. **WANG, Danwei**, "A Simple Iterative Learning Controller for Manipulators with Flexible Joints", *Automatica*, Vol.31, No.9, September 1995, pp. 1341-1344.
14. HO, Yeong Khing, **WANG, Danwei** and SOH, Yeng Chai, "Robust Control of Constrained Manipulators with Constraint Unceraiities", *Journal of Robotic Systems*, Vol.12, No.11, 1995, pp. 747-755.
15. **WANG, Danwei** and SOH, Yeng Chai, "Control of Constrained Manipulators with Flexible Joints", *International Journal Dynamics and Control*, Vol.6, No.1, Jan. 1996, pp. 33-48.
16. **WANG, Danwei**, SOH, Yeng Chai and GU, Ming Kun, "Fuzzy Logic Joint Path Generation for Kinematic Redundant Manipulators with Multiple Criteria", *The Journal of Fuzzy and Intelligent Sytems,- Applications to Engineering and Technology*, Vol.4, 1996, pp. 89-99.

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