Curriculum Vitae of Dr. Mouquan Shen

1. Personal Particulars

Mouquan Shen received the Ph.D. degree in Control Theory and Control Engineering from the College of Information Science and Engineering, Northeastern University, Shenyang, China, in 2011. From 2012, he was with the College of Electrical Engineering and Control of Science of Nanjing Technology University, Nanjing, China. From 2015 to 2017, he was an visiting scholar with The Yeungnam University, The University of Hong Kong, HongKong, and The University of Adelaide, respectively. Since 2018, he has been a full Professor with the Nanjing Tech University, China.

He is a member of Chinese Association of Automation and research interests cover Markov jump systems, adaptive control, data-driven-based control, robust control, and interactive learning control. He has published over 60 international journal papers and received over 1000 citations with h-index of 21. He is currently the Associate Editors of Mathematical Problems in Engineering and International Journal of Robotics and Control Systems, Editorial Board Members of International Journal of Sensors, Wireless Communications and Control, and International Journal of Control, Automation, Communication and Systems, Journal of Electrical and Electronic Engineering, and Advances in International Applied Mathematics (Chinese).

2. Research Interests/Experiences

1). Research Interests

- Iterative learning control

- Adaptive control

- Markov jump linear systems

- Switched systems

- Networked control systems

- Quantized control

- Sliding mode control

- Event-triggered control

- Model free control

2). Research Experiences

- Dec. 2014-Jan. 2015, Yeungnam University, Korea, J.H Park.

- Nov. 2015-Mar. 2016, The University of HongKong, HongKong, James Lam.

- May 2016-May 2017, The University of Adelaide, Australia, Peng Shi.

- Aug. 2012- , Nanjing Technology University, China.

3. Professional activities

1). Editorial experiences

- Mathematical Problems in Engineering, Associate Editor
- International Journal of Robotics and Control Systems, Associate Editor
- International Journal of Sensors, Wireless Communications and Control, Editorial Board Member
- International Journal of Control, Automation, Communication and Systems, Editorial Board Member
- Journal of Electrical and Electronic Engineering, Editorial Board Member
- Advances in International Applied Mathematics (Chinese), Editorial Board Member

2). Review panels

- Automatica
- IEEE Transactions on Automatic Control
- IEEE Transactions on Systems, Man andCybernetics: Systems
- IEEE Transactions on Neural Networks and Learning Systems
- IEEE Transactions on Industrial Informatics
- IEEE Transactions on Circuits and Systems I: Regular Papers
- IEEE Transactions on Circuits and Systems II: Express Briefs
- IEEE Transactions on Cybernetics
- Fuzzy set and systems
- IET Control Theory and Application
- Nonlinear Dynamics
- International Journal of Systems Science
- Journal of the Franklin Institute
- Applied Mathematics and Computation
- Optimal Control, Applications and Methods
- Asian Journal of Control
- Peer-to-Peer Networking and Applications

- International Journal of Robust and Nonlinear Control

- Circuit System & Signal Processing

- Neurocomputing

- Nonlinear Analysis: Hybrid Systems

- International Journal of Control, Automation and Systems

- Transactions of the Institute of Measurement and Control

- ISA Transactions

- Information Technology and Control

4. Publication List

[1] **Mouquan Shen***, Yang Gu, Ju H Park, Yang Yi, Wei-Wei Che. Composite control of linear systems with event-triggered inputs and outputs. *IEEE Transactions on Circuits and Systems II: Express Briefs*, DOI:10.1109/TCSII.2021.3098820, 2021.

[2] **Mouquan Shen***, Yongsheng Ma, Ju H. Park, Qing-Guo Wang. Fuzzy tracking control for Markov jump systems with mismatched faults by iterative proportional-integral observers. *IEEE Transactions on Fuzzy Systems*, DOI:10.1109/TFUZZ.2020.3041589, 2020.

[3] **Mouquan Shen***, Yang Gu, Ju H. Park, Qing-Guo Wang, Sing Kiong Nguang. H_∞ control of uncertain linear systems with a triggering threshold dependent approach. *Information Sciences*, vol. 540, pp. 278 - 291, 2020.

[4] Yang Gu, **Mouquan Shen***, Yuesheng Ren, Hongxia Liu. H_∞ finite-time control of unknown uncertain systems with actuator failure. *Applied Mathematics and Computation*, DOI:10.1016/j.amc.2020.125375, 2020.

[5] Yongsheng Ma, **Mouquan Shen***, Haiping Du, Yuesheng Ren, Guangrui Bian. An iterative observer-based fault estimation for discrete-time TS fuzzy systems. *International Journal of Systems Science*, vol. 51, pp. 1007 - 1018, 2020.

[6] **Mouquan Shen***, Hainan Zhang, Sing Kiong Nguang, Choon Ki Ahn. H_∞ output anti-disturbance control of stochastic Markov jump systems with multiple disturbances. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, DOI:10.1109/TSMC.2020.2981112, 2020.

[7] Shen Yan, **Mouquan Shen***, Sing Kiong Nguang, Guangming Zhang. Event-triggered H_∞ control of networked control systems with distributed transmission delay. *IEEE Transactions on Automatic Control*, vol. 65, pp. 4295 - 4301, 2020.

[8] Zhong Zhen*, **Mouquan Shen**. Inertial vector measurements based attitude synchronization control for multiple spacecraft formation. *Aerospace Science and Technology*, DOI:10.1016/j.ast.2019.105309, 2019.

[9] Xuanxuan Shi, **Mouquan Shen***. A new approach to feedback feed-forward iterative learning control with random packet dropouts. *Applied Mathematics and Computation*, vol. 348, pp. 399-412, 2019.

[10] Hainan Zhang, **Mouquan Shen***. Sliding mode control of time?varying delay Markov jump with quantized output. *Optimal Control Applications and Methods*, vol. 40, pp. 226 - 240, 2019.

[11] Aihua Chen, **Mouquan Shen***. A new method to reliable H_∞ control of nonlinear stochastic systems with actuator faults. *International Journal of Fuzzy Systems*, vol. 21, pp. 60 - 71, 2019.

[12] Shen Yan, **Mouquan Shen**, Sing Kiong Nguang, Guangming Zhang*, Liruo Zhang. A distributed delay method for event-triggered control of TS fuzzy networked systems with transmission delay. *IEEE Transactions on Fuzzy Systems*, vol. 27, pp. 1963 - 1973, 2019.

[13] Shen Yan, **Mouquan Shen**, Guangming Zhang*, Sing Kiong Nguang. Reliable H_∞ output control of nonlinear systems with dynamic event-triggered scheme. *Journal of the Franklin Institute*, vol. 356, pp. 58-79, 2019.

[14] **Mouquan Shen***, Shen Yan, Yonghui Sun, Guangming Zhang. Nonfragile H_∞ output feedback control of linear systems with an event-triggered scheme against unreliable communication links. *ISA Transactions*, vol. 84, pp. 96 - 103, 2019.

[15] Li-Wei Li, **Mouquan Shen***, Wen Qin. Simultaneous fault detection and control for Markovian jump systems with general uncertain transition rates. *International Journal of Control, Automation and Systems*, vol. 16 pp. 2074 - 2081, 2018.

[16] **Mouquan Shen**, Ju H.Park*, ShuminFei. Event-triggered nonfragile H_∞ filtering of Markov jump systems with imperfect transmissions. *Signal Processing*, vol. 149, pp. 204-213, 2018.

[17] **Mouquan Shen**, Sing Kiong Nguang, Choon Ki Ahn*, Qing-Guo Wang. Robust H_2 control of linear systems with mismatched quantization. *IEEE Transactions on Automatic Control*, vol. 64, pp. 1702 - 1709, 2019.

[18] **Mouquan Shen***, Hainan Zhang, Ju H. Park*. Observer-based quantized sliding mode H_∞ control of Markov jump systems. *Nonlinear Dynamics*, vol. 92, pp. 415-427, 2018.

[19] **Mouquan Shen**, Sing Kiong Nguang, Choon Ki Ahn*. Quantized H_∞ output control of linear Markov jump systems in finite frequency domain. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 49, pp. 1901 - 1911 , 2019.

[20] **Mouquan Shen***, Dan Ye, Qing-Guo Wang. Event-triggered H_∞ filtering of Markov jump systems with general transition probabilities. *Information Sciences*, vol. 418, pp. 635-651, 2017.

[21] S Yan, **Mouquan Shen***, WW Che, G Zhang. Event-triggered non-fragile H_∞ filtering of linear systems with a structure separated approach. *IET Control Theory & Applications*, vol. 11, pp. 2977 - 2984, 2017.

[22] **Mouquan Shen**, Cheng-Chew Lim, Peng Shi*. Reliable H_∞ static output control of linear time-varying delay systems against sensor failures. *International Journal of Robust and Nonlinear Control*, vol. 27, pp. 3109 - 3123, 2017.

[23] Song Zhu*, **Mouquan Shen**, Cheng-Chew Lim. Robust input-to-state stability of neural networks with Markovian switching in presence of random disturbances or time delays. *Neurocomputing*, vol. 249, pp. 245 - 252, 2017.

[24] Lingchun Li, **Mouquan Shen***, Guangming Zhang, Shen Yan. H_∞ control of Markov jump systems with time-varying delay and incomplete transition probabilities. *Applied Mathematics and Computation*, vol. 301, pp. 95 - 106, 2017.

[25] **Mouquan Shen***, Dan Ye, Qing-Guo Wang. Mode-dependent filter design for Markov jump systems with sensor nonlinearities in finite frequency domain. *Signal Processing*, vol. 134, pp. 1 - 8, 2017.

[26] **Mouquan Shen***, Dan Ye*. A finite frequency approach to control of Markov jump linear systems with incomplete transition probabilities. *Applied Mathematics and Computation*, vol. 295, pp. 53 - 64, 2017.

[27] **Mouquan Shen***, Shen Yan, Guangming Zhang*. A new approach to event-triggered static output feedback control of networked control systems. *ISA Transactions*, vol. 65, pp. 468 - 474, 2016.

[28] Shen Yan, **Mouquan Shen***, Guangming Zhang*. Extended event-driven observer-based output control of networked control systems. *Nonlinear Dynamics*, vol. 86, pp. 1639 - 1648, 2016.

[29] **Mouquan Shen**, Ju H. Park*. H_∞ filtering of Markov jump linear systems with general transition probabilities and output quantization. *ISA Transactions*, vol. 63, pp. 204 - 210, 2016.

[30] **Mouquan Shen**, Shen Yan, Guangming Zhang, Ju H. Park*. Finite-time H_∞ static output control of Markov jump systems with an auxiliary approach. *Applied Mathematics and Computation*, vol. 273, pp. 553 - 561, 2016.

[31] **Mouquan Shen**, Ju H. Park*, Dan Ye. Extended H_∞ filtering of Markov jump nonlinear systems with general uncertain transition probabilities. *Journal of the Franklin Institute*, vol. 352, pp. 5269 - 5291, 2015.

[32] **Mouquan Shen***, Shen Yan, Ze Tang, Zhou Gu. Finite-time H_∞ filtering of Markov jump systems with incomplete transition probabilities: A probability approach. *Signal Processing*, vol. 9, pp. 572 - 578, 2015.

[33] **Mouquan Shen***, Ju H. Park, Dan Ye. A separated approach to control of Markov jump nonlinear systems with general transition probabilities. *IEEE transactions on cybernetics*, vol. 46, pp. 2010 - 2018, 2015.

[34] **Mouquan Shen**, Dan Ye, Shuimin Fei, Ju H. Park*. A new approach to static output control of uncertain continuous markov jump linear systems. *Circuits, Systems, and Signal Processing*, vol. 34, pp. 2517 - 2535, 2015.

[35] **Mouquan Shen***, Dan Ye, Shuimin Fei. A constructive method to static output stabilisation of Markov jump systems. *International Journal of Control*, vol. 88, pp. 990 - 1000, 2015.

[36] Shen Yan, **Mouquan Shen***, Shuimin Fei, Guangming Zhang. A new approach to robust ?nite-time H_∞ control of continuous-time Markov jump systems. *Control and Cybernetics*, vol.44, pp. 211 - 231, 2015.

[37] **Mouquan Shen***, Guangming Zhang, Yuhao Yuan. H_∞ static output feedback controller design for continuous Markov jump systems with incomplete transition probabilities. *Transactions of the Institute of Measurement and Control*, vol. 36, pp. 743 - 753, 2014.

[38] **Mouquan Shen***, Dan Ye, Shuimin Fei. Robust H_∞ static output control of discrete Markov jump linear systems with norm bounded uncertainties. *IET Control Theory & Applications*, vol. 8, pp. 1449 - 1455, 2014.

[39] **Mouquan Shen***, Guangming Zhang, Yuhao Yuan, Dan Ye. Relaxed H_∞ controller design for continuous Markov jump system with incomplete transition probabilities. *Circuits, Systems, and Signal Processing*, vol. 33, pp. 1393 - 1410, 2014.

[40] **Mouquan Shen***, Guangming Zhang, Yuhao Yuan, Lei Mei. Non-fragile sampled data H_∞ filtering of general continuous Markov jump linear systems. _Kybernetika_ , vol. 50 pp. 580 - 595, 2014.

[41] **Mouquan Shen***. H_∞ filtering of continuous Markov jump linear system with partly known Markov modes and transition probabilities. _Journal of the Franklin Institute_, vol. 350, pp. 3384 - 3399, 2013.

[42] **Mouquan Shen**, Guang-Hong Yang*. Nonfragile H_∞ filtering of continuous Markov jump linear systems with general transition probabilities. _Journal of Dynamic Systems, Measurement, and Control_, vol. 135, pp. 1254, 2013.

[43] **Mouquan Shen***, Dan Ye. Improved fuzzy control design for nonlinear Markovian-jump systems with incomplete transition descriptions. _Fuzzy Sets and Systems_, vol. 217, pp. 80 - 95, 2013.

[44] **Mouquan Shen**, Guang-Hong Yang. Non-fragile H_∞ filtering of continuous Markov jump linear systems with general transition probabilities, _ASME Journal of Dynamic Systems, Measurement and Control_, 135:031005, 2013.

[45] **Mouquan Shen**, Guang-Hong Yang*. New analysis and synthesis conditions for continuous Markov jump linear systems with partly known transition probabilities. _IET Control Theory & Applications_, vol. 6, pp. 2318 - 2325, 2012.

[46] **Mouquan Shen**, Guang-Hong Yang*. H_2 filter design for discrete?time Markov jump linear systems with partly unknown transition probabilities. _Optimal Control Applications and Methods_, vol. 33, pp. 318 - 337, 2012.

[47] **Mouquan Shen**, Guang-Hong Yang*. H_2 state feedback controller design for continuous Markov jump linear systems with partly known information, _International Journal of System Science_, vol. 43, pp. 786 - 796, 2012.