


Brief CV

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Title (Pro./Dr.)	Dr	Country	China	
Phone Number		WeChat ID		
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University/Department	Shanghai Normal University Tianhua College/ College of Engineering			
Personal Web Sites				
Research Area	<p style="text-align: center;">Vehicle system dynamics and control Nonlinear optimal control design Application of optimal nonlinear state estimation technology in vehicle dynamics and control</p>			
<p>Brief introduction of your research experience:</p> <p>EDUCATION</p> <p>2013 D.E. (Automotive Engineering), Shanghai Jiaotong University, Shanghai, China</p> <p>2003 B.ENG (Automotive Engineering), Hubei University of Automotive Technology, Shiyan, China</p> <p>MAJOR GRANTS</p> <ol style="list-style-type: none"> <u>Optimal power matching strategy for mode switching control of dual clutch hybrid electric vehicle.</u> (Scientific Research Project of Shanghai Normal University, TianHua College, 2018, PI) <u>Research on the strategy for optimal feedback linearization slip ratio control of Anti-lock Brake System (ABS) in new energy vehicles.</u> (The Training Scheme for Young College Teachers in Shanghai, PI, 2014-2016) <u>Theoretical study on integrated dynamic optimization control for dry dual-clutch transmissions based on shifting quality and service life.</u> (The National Natural Science Foundation of China, 51175326/E050201, Investigator, 2012-2015) <u>Development of dual-clutch automatic transmission used in sedan.</u> (The National High-tech R&D Program (863 Program), 2006AA110110, PhD Student, 2006-2010) <p>PATENTS</p> <ol style="list-style-type: none"> Zhang JW, Lu TL, Wu MX, Ni CS, Lu HY. <u>Diaphragm spring for normally-open type clutch.</u> 				

Patent No.: CN200910055216.7.

2. Lu TL, Zhang JW, Ni CS, **Wu MX**, Lu HY. Electric actuator for normally-open type clutch. Patent No.: CN200910052134.7.
3. **Wu MX**. Feedback linearization control strategy and device for ABS and TCS. Patent No.: CN109334646A.

SELECTED PUBLICATIONS

1. Mingxiang Wu, “Research on Optimal Feedback Tracking Control of TCS Slip Ratio of High Speed Vehicle in Complex Road Conditions”. 2019 19th International Conference on Control and Automation Systems, ICC Jeju, Korea, 2019. (EI)
2. Mingxiang Wu, “Sliding Mode Control for Optimal Torque Transmission of Dry Dual Clutch Assembly of A Two-Speed Electric Vehicle During Launch”. 2019 3rd International Conference on Electrical, Mechanical and Computer Engineering, Guizhou, China, 2019.(EI)
3. **Wu MX**. Research on Optimal Tracking Control for ABS Slip Ratio of High Speed Vehicle in Complex Road Conditions. *Journal of Shanghai Normal University (Natural Sciences)* , 2019, 08(*The key magazine of China technology*).
4. **Wu MX**. Sliding Mode Control of A Dry-Type Two-Speed Dual Clutch Transmission for An Electric Vehicle During Optimal Power Transmission Process in Torque Phase. *2018 29th IEEE Intelligent Vehicles Symposium (IV) Changshu, Suzhou, China, June 26-30, 2018*, pp.1968-1975.(EI)
5. **Wu MX**. Hamilton Jacobi Inequality Based Sliding Mode Robust Control for Optimal Torque Transmissions of Dry Dual Clutch Assembly in Torque Phase of Shift. *Proceedings of 2017 IEEE international conference on mechatronics and automation, Takamatsu, Japan, 2017*, pp.1900-1905.(EI)
6. **Wu MX**. Optimal control for dual clutch overlap operations during torque phase in shift. *Proceedings of the 2nd International Conference on Electromechanical Control Technology and Transportation, January 14-15,2017, Zhuhai, Guangdong, China, ISBN 978-1-138-06752-3*, pp.261-266.
7. Huang F, Lu TL, **Wu MX**. Research on Engaging Process of Dry Dual-Clutch Based on Optimality Theory. *Chinese Journal of Automotive Engineering*. 2013, 3(3):175-182.
8. Lu TL, Dai F, Zhang JW, **Wu MX**. Optimal control of dry clutch engagement based on the driver’s starting intentions. *Proceedings of the Institution of Mechanical Engineers, Part D: Journal of*

Automobile Engineering. 2012, 226 (8):1048-1057. (SCI)

9. **Wu MX**, Lu TL, Ni CS, Zhang JW. Research on feedback linearization control of dual-clutch for dual clutch transmission. *Mechanical Science and Technology for Aerospace Engineering*. 2010, 29(10):1285-1290.
10. **Wu MX**, Zhang JW, Lu TL, Ni CS. Research on optimal control for dry dual-clutch engagement during launch. *Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering*. 2010, 224(6):749-763.(SCI)
11. Zhang JW, **Wu MX**, Lu TL, et al. Optimal Engagement of Dry DCT Vehicle Launch by Feedback Linearization Control. In *Proceedings from the 10th International Symposium on Advanced Vehicle Control (AVEC), August 2010, Loughborough, UK*, pp. 930–935.(CPCI)
12. **Wu MX**, Chen L, Zhang JW. A LQG control strategy for a new type of active suspensions in road surface status inspection vehicles. *Journal of Vibration and Shock*. 2009, 28(9):125-129.(EI)
13. **Wu MX**, Chen L, Zhang JW. The analysis of the image excursion and dynamic geometrical aberration occurring in vehicle-borne cameras used for road surface status inspection. *Optical Technique*. 2008, 34 (s1):83-86.
14. Wu T, Lu TL, **Wu MX**. Finite element analysis on the diaphragm Spring's load-deformation characteristic of DCT. *Automobile Technology*. 2008, (5):11-13.

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