汽车工程系

DEPARTMENT OF AUTOMOTIVE ENGINEERING

English

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教育背景

1995 清华大学工程力学系，工学博士

1988 哈尔滨船舶工程学院机械工程系，学士

工作履历

2007.12 – 迄今 清华大学汽车工程系 教授

2005.10-2005.12 德国亚琛工大 访问学者

2004.03-2004.08 韩国高等工程研究院 访问学者

2001.09-2007.11 清华大学汽车工程系 副教授

1999.08-2001.08 加拿大多伦多大学 博士后

1995.03-1999.07 清华大学工程力学系 讲师(1995)、副教授(1997)

学术兼职

1.亚洲太平洋振动大会国际指导委员会委员(International Steering Committee, Asia-Pacific Vibration Conference)，2009.11-

2.中国力学学会第7届固体力学专业委员会振动专业组成员，2008.1-

研究领域

车辆与动力系统结构振动及其主被动控制

先进悬挂系统与振动能量回收

结构轻量化设计与振动疲劳分析

人体振动与乘坐舒适性

奖励与荣誉

2013 北京市教育教学成果奖(二等)

2012 清华大学教学成果奖(一等)

2007 中国汽车工业科技进步奖(三等)

1997 清华大学青年教师优秀群体奖(研究类)

1996 中国船舶工业总公司科技进步奖(二等)

学术成果

部分期刊论文：

1．某型混合动力传动系统扭振减振器参数的优化设计. 汽车技术, 2015,08:1-5+42.

2．混合动力客车传动系扭振响应及其影响因素分析. 工程力学, 2014,S1:223-227.

3．受径向力滚动轴承摩擦力矩的测试和函数拟合. 清华大学学报(自然科学版), 2014,06:744-749.

4．轮毂驱动电动汽车垂向特性与电机振动分析. 汽车工程, 2014,04:398-403+425.

5．汽车扭力梁式后悬架轴头载荷谱仿真分析. 计算机仿真, 2014,01:180-184.

6．后扭力梁轴头载荷谱仿真及疲劳寿命预测. 西安交通大学学报, 2013,09:106-111.

7．关于动力总成悬置系统模态能量表达的一个注记. 汽车工程, 2013,03:224-228.

8．振动疲劳关键技术及其在底盘结构中的应用. 汽车工程学报, 2013,02:133-138.

9．基于分数导数的橡胶材料两种粘弹性本构模型. 清华大学学报(自然科学版), 2013,03:378-383.

10．发动机前端附件带传动系统固有频率算法的研究. 汽车工程, 2012,10:943-947.

11．坐姿人体垂向振动特性及其两自由度模型. 中国科学:技术科学, 2011,12:1640-1648. （中英文同时发表）

12．坐姿人体垂向振动特性及其三自由度模型参数. 哈尔滨工程大学学报, 2011,09:1223-1227.

13．基于转动振动控制的发动机前端附件带传动系统优化. 内燃机学报, 2011,05:475-479.

14．A two-step method to identify parameters of piecewise linear system. Journal of Sound and Vibration, 2009, 320 (4-5): 808-821

15．多楔带传动系统的频率灵敏度分析. 机械工程学报，2009, 45(11): 235-239

16．A new trifilar pendulum approach to identify all inertia parameters of a rigid body or assembly. Mechanism and Machine Theory, 2009,44:1270-1280

17．多楔带传动系统固有特性计算的约化行列式方法. 内燃机学报，2009, 27(5):469-473

18．Sensitivity analysis and parameter optimization for vibration reduction of undamped multi-ribbed belt drive systems. Journal of Sound and Vibration, 2008,317(3-5):591-607

19．Stabilization analysis of a generalized nonlinear axially moving string by boundary velocity feedback. Automatica, 2008, 44(2): 498-503

20．三线摆方程简化及其共振问题研究. 振动与冲击, 2007, 26(8):136-139

21．动力总成悬置设计中惯性参数的灵敏度分析. 汽车工程, 2007, 29(10):884-888

22．Strategies and calculation methods for automotive powertrain motion control under quasi-static loads. Journal of Automobile Engineering, 2006, 220(D8):1131-1138

23．Exponential stabilization of an axially moving string with geometrical nonlinearity by linear boundary feedback. Journal of Sound and Vibration, 2006, 296(4,5):861-870

24．前端附件皮带传动系统频率灵敏度分析. 汽车工程, 2006, 28(5): 477-481,486

25．基于遗传算法的动力总成悬置系统优化设计. 汽车技术，2006, 9:13-16

部分国际会议论文：

1.Contribution of inerters to the vertical dynamics of electric vehicles with suspended in-wheel motors. Inter-Noise 2015, San Francisco, California, the US, August 9-12, 2015

2. Influence of the extra wheel mass of electric bikes. EVS28, Kintex, Korea, May 3-6, 2015

3. Dynamic analysis on a belt driving starter and generator system. EVS28, Kintex, Korea, May 3-6, 2015

4. Study on the vertical vibration of an occupant - seat cushion system. Inter-Noise 2014, Melbourne, Australia, November 16-19, 2014

5.A rate-dependent constitutive model of PU foams. The 15th Asia Pacific Vibration Conference, Jeju, South Kore, June 2-6, 2013

6.Numerical analysis for the operational modes of a rear torsional beam. The 15th Asia Pacific Vibration Conference, Jeju, South Korea, June 2-6, 2013

7. Incorporation of surface roughness for complex eigenvalue analysis on disc brake squeal. The 15th Asia Pacific Vibration Conference, Jeju, South Korea, June 2-6, 2013

8. Vertical vibration analysis on electric vehicle with suspended in-wheel motor drives. EVS27, November 17-2, Barcelona, Spain 0, 2013

9. Failure mechanism of the transmission shaft of a new power split hybrid vehicle. EVS27, November 17-20, Barcelona, Spain, 2013

10.Stick-slip motion of a resin-steel contact at low speeds. ASME 2012 International Mechanical Engineering Congress and Exposition, IMECE 2012, Houston, Texas, the US, November 9 - 15, 2012

11.Steady friction torque of rolling bearings in a serpentine belt drive. ASME 2012 International Mechanical Engineering Congress and Exposition, IMECE 2012, Houston, Texas, the US, November 9 - 15, 2012

12.Experimental study on the stick-slip motion of even resin and steel contacts. The 14th Asia-Pacific Vibration Conference, Hong Kong, China, December 5-8, 2011

13.Modal analysis on a disc brake with thermal deformation and rough surfaces. The 14th Asia-Pacific Vibration Conference, Hong Kong, China, December 5-8, 2011

14.Research on methods for eigen-solution of serpentine belt drive systems. The 3rd International Conference on Integrity, Reliability & Failure, Porto, Portugal, July 20-24th, 2009

15.Quasi-static stress-strain relation of polyurethane foams in terms of fractional calculus. The 3rd International Conference on Integrity, Reliability & Failure, Porto, Portugal, July 20-24th, 2009

16.Research on models about apparent mass for seated human body subjected to vertical vibration. The 13th Asia-Pacific Vibration Conference, Christchurch, New Zealand, November 22-25, 2009

17.Optimization algorithms to identify model parameters for apparent mass of seated human body under vertical vibration. The 13th Asia-Pacific Vibration Conference, Christchurch, New Zealand, November 22-25, 2009