

汽车工程系

DEPARTMENT OF AUTOMOTIVE ENGINEERING

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郑四发 博士

教授 博士生导师

清华大学苏州汽车研究院 副院长

教育背景

1988-1993 清华大学汽车工程系 工学学士

清华大学计算机科学与技术系 电子信息技术第二学士

1993-1997 清华大学汽车工程系 工学硕士、工学博士

工作经历

1997.8-2002.6 清华大学汽车工程系 讲师

2002.7-2003.9 日本国立交通安全环境研究所 客座研究员、日本国际环境研究协会EFF Fellow

2003.10-现在 清华大学汽车工程系 副研究员

2006.9-2006.12 德国亚琛工业大学 DAAD访问学者

2010.9- 清华大学汽车工程系 博士生导师

2011.11-2011.12 意大利米兰理工大学 高级访问学者

2012.11-现在 清华大学苏州汽车研究院 副院长

2014.12-现在 清华大学汽车工程系教授



学术兼职

中国机械工程学会高级会员

SAE 会员

JSAE 会员

研究领域

汽车噪声及振动控制

车辆动力学及控制

智能交通系统技术

负责讲授的课程:

- 1.“汽车噪声控制”(本科生课程, 32学时)
- 2.“Vehicle Acoustics (NVH)”(英文研究生课, 48学时)
- 3.“Vehicle Engineering II -Vertical and lateral dynamics”(英文研究生课, 48学时)

研究概况

- 1.负责国家自然科学基金项目, 机械噪声评价用空间声场重现理论及方法(51275262), 2013-2016
- 2.负责国家“863”项目, 车路交互式行车安全系统关键技术(2011AA110402), 2011-2013
- 3.负责清华大学基础研究项目, 复杂边界三维声场重现的理论基础(2011Z02139), 2011-2013
- 4.负责重庆长安汽车股份有限公司项目, 汽车动力传动系统NVH, 2011-2013
- 5.负责一汽集团技术中心项目, 车架对牵引车平顺性影响, 2012-2013
- 6.负责汽车噪声振动和安全技术国家重点实验室开放基金, 汽车排气系统的声学性能仿真及匹配方法, 2012

奖励与荣誉

- 1.国家技术发明二等奖2项(2010, 2013)
- 2.教育部技术发明一等奖1项(2012)
- 3.中国汽车工业优秀青年科技人才奖1项(2010)
- 4.中国汽车工业科技进步一等奖1项(2009)
- 5.中国智能交通科学技术一等奖1项(2012)

学术成果

在国内外重要刊物和会议上发表学术论文100余篇。

- 1 Sifa Zheng, Jiabi Dan, Peng Hao, XiaominLian. Decomposition and visualization of vehicle noise sources with transfer pathacoustical holography. Noise Control Engineering J.2014, Vol.62(5):211-9
- 2 Sifa Zheng, Zhongxu Kang, XiaominLian. Acoustic simulation for exhaust silencer of vehicle engine with combined one/three-dimensional approach, Int. J. Vehicle Design, 2012, Vol. 60(1): 57-70.
- 3 Zheng Sifa; HaoPeng; LianXiaomin; Li Keqiang. Time-domain transfer path analysis of multiple moving noise sources. Noise Control Engineering J.2011, Vol.59(5):541-548.
- 4 Zheng Sifa; Zhou Lin; LianXiaomin; LiKeqiang. Coherence analysis of the transfer function for dynamic force identification. Mechanical System and Signal Processing, 2011, Vol.25(6):2229-2240.
- 5 Zheng Sifa; Cao Jiandong; LianXiaomin; Li Keqiang Urban pickup and delivery problem considering time-dependent fuzzy velocity. Computers & Industrial Engineering, 2011 Vol.60(4):821-829.

- 6 Yang Diange; Li Bing; Wang Ziteng; Zheng Sifa; LianXiaomin. Video visualization for moving sound sources based on binocular vision and short-time beamforming. *Noise Control Engineering J.* 2010, Vol.58(4):382-388
- 7 LiXizhao; Zheng Sifa; Zhang Jun; LiKeqiang. Modelling and simulation study on application of sliding-mode control for an active anti-roll system in a passenger car with air suspension. *Int. J. Vehicle Design*,2009,Vol.49(4):318-337.
- 8 Zheng Sifa; Xu Feng; LianXiaomin; Luo Yugong; Yang Diange; LiKeqiang. Generation method for a two-dimensional random array for locating noise sources on moving vehicles. *NoiseControl Engineering J.*2008,Vol.56(2):130-140
- 9 Peng B, Zheng S, Liao X, et al. A three-stage method for sound field reproduction in rooms with reflection boundary: theory and experiments[C].*Proceedings of 43th International congress on Noise Control Engineering, Inter.Noise 2014. Melbourne,Australia,6-19 November,2014.*
- 10 Liao X, Zheng S, Peng B, et al. A power constrained algorithm for multi-zone sound reproduction[C]. *Proceedings of 43th International congress on Noise Control Engineering, Inter.Noise 2014. Melbourne,Australia,6-19 November,2014.*
- 11 LiaoX.N., Zheng S. F., et al., A playback system for sound quality evaluation of interior noise, *Proceedings of 21th International congress on Sound andVibration, ICSV 2014.Beijing, China, 14-17 July, 2014.*
- 12 Wang Yuelin, Zheng Sifa, Zheng Lina, LianXiaomin,Online Analysis of Vehicle Driveline Torsional Vibration,*Proceedings of 21th International congress on Sound and Vibration, ICSV 2014.Beijing, China, 14-17 July, 2014.*
- 13 Dan Jiabi, Zheng Sifa, Liu Haitao, LianXiaomin,The Study on Jet Noise of the Exhaust System with Numerical and Experimental Method,*Proceedings of 21th International congress on Sound and Vibration, ICSV 2014.Beijing, China, 14-17 July, 2014.*
- 14 Haitao Liu, Sifa Zheng, Jiabi Dan and XiaominLian.A study of dual mode muffler for improving sound quality of vehicle exhaust noise,*20th International Congress on Sound&Vibration, Thiland.2013*
- 15 Peng Bo; Zheng Sifa; Li Shenguang; LianXiaomin. 3D sound field reconstruction in reverberation with regularization, *20th International Congress on Sound&Vibration, Thiland.2013*
- 16 Tian Sibao,ZhengSifa,XieBoyuan, Qin Xiaohui. Intelligent vehicle platform and signal processing method applied to cooperative vehicle infrastructure.*Proceedings of the 2nd international conference on traffic information and safety,Wuhan,China.2013*
- 17 XieBoyuan, Zheng Sifa, Qin Xiaohui,Zhouxijun. DGPS-based vehicle state estimation in V2I cooperative system. *Proceedings of the 2nd international conference on traffic information and safety,Wuhan,China.2013*
- 18 LiShenguang; Zheng Sifa; Peng Bo; LianXiaomin. Experimental research on 3D sound reproduction with reflection boundary. *41st International Congress and Exposition on Noise Control Engineering 2012, INTER-NOISE 2012*
- 19 Hao Peng; Kong Fanzhong; Zheng Sifa; LianXiaomin.Identify Moving Noise with Array Signal and MVDR . *Measurement Technology and Mechanics Automation(ICMTMA 2011),Shanghai. 2011*
- 20 Liu, Haitao; Zheng, Sifa; Hao, Peng; Lian, Xiaomin. Contribution Analysis of Bus Pass-by Noise Based on Dynamic Transfer Path Method. *Proceedings of SPIE.Guangzhou 2011*

专利:

已获发明专利38项。

总浏览数: 9206386

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