机械与动力工程学院

School of Mechanical Engineering, Shanghai Jiao Tong University

首页　学院概况　师资队伍　科学研究　国际合作　本科生培养　研究生培养　学生工作　校友专栏　企业合作

师资队伍

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杨林　教授

汽车工程研究院

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个人主页　无

教育背景

时间	毕业院校	学历
1997	上海交通大学	博士

工作经历

2004－至今　上海交通大学机械与动力工程学院　教授，博士生导师
2002－2006　上海交通大学机械与动力工程学院汽车电子研究所　副所长
2007－至今　上海交通大学机械与动力工程学院汽车电子研究所　所长
1999年，日本ISUZU公司研修

研究方向

1、混合动力、纯电动、燃料电池等新能源汽车动力系统及控制
2、内燃机电子控制
3、电动汽车动力电池集成与管理系统
4、汽车电子技术

科研项目

2007－2011，国家973计划一级课题，车载储能系统管理与环境适应性研究，负责
2011－2012，上海市高新技术产业化重点项目，新能源汽车磷酸铁锂动力电池的产业化开发，负责
2009－2012，江苏省重大成果转化项目，混合动力客车研制开发，负责
2010－2011，企业攻关课题，商用车混合动力系统研发，负责
2011－2012，新能源客车集成测试、技术支持与运营保障、高压电系统开发等，负责
国家863计划课题，重型柴油车排放控制在线诊断系统，负责
国家863计划课题，高压电安全控制与动力系统故障诊断，课题副组长
国家863计划课题，燃料电池轿车镍氢动力电池组及管理系统，负责
国家863计划课题，纯电动轿车镍氢电池管理系统，负责
上海市登山行动计划课题，混合动力汽车用柴油机混合动力系统，负责
上海市创新行动计划课题，重型柴油车排放控制SCR喷射与控制系统，负责
上海市联盟计划课题，柴油机混合动力总成，负责
上海市引进创新课题，柴油机混合动力系统，负责

船用柴油机高压共轨电控系统研发，企业重大项目，负责

上海市科教兴市项目课题，汽油发动机优化与新技术应用开发，负责

代表性论文专著

杨林，陈自强，汽车电子嵌入式控制系统开发与应用，现代教育出版社，2009

1. Development and application of automotive embedded electronic control systems, China Publishing Group, 2009

2. A new charging mode of Li-ion batteries with LiFePO4/C composites under low temperature, J Therm Anal Calorim, 2011, Volume 104, Number 2, SCI，通讯作者

3. Signal Loss of Reflected and Transmitted Ultrasonic Waves Induced by Double Rough Interfaces. Acta Acustica united with Acustica, Volume 96, Number 5, September/October 2010

4. Intelligent anti-lock braking Control of Hybrid Buses, J Automotive Safety and Energy, 2010, Vol.1, No.1: 40-48

5. Hybrid electric vehicle with flywheel energy storage system. WSEAS TRANSACTIONS on SYSTEMS. 2009-5-1

6. Steady-state and idle optimization of internal combustion engine control strategies for hybrid electric vehicles. Chinese Journal of Mechanical Engineering (English Edition), v 21, n 2, April, 2008, p 58-64

7. Model-based development of real-time software system for electronic unit pump system. Chinese Journal of Mechanical Engineering (English Edition), v 20, n 1, February, 2007, p 25-30

8. Multiple electronic control units calibration system based on explicit calibration protocol and J1939 protocol. Chinese Journal of Mechanical Engineering (English Edition), v 21, n 1, February, 2008, p 42-46

9. Structure parameters design and performance test of fuel injection system. Chinese Journal of Mechanical Engineering (English Edition), v 19, n 3, September, 2006, p 407-411

10. Fuel economy and NOx emission potential investigation and trade-off of a hybrid electric vehicle based on dynamic programming. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, v 222, n 10, 2008, p 1851-1864

11. An optimal torque distribution strategy for an integrated starter-generator parallel hybrid electric vehicle based on fuzzy logic control. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, v 222, n 1, 2008, p 79-92

12. Study on the model-based development approach for the electronically controlled system of a high-pressure common-rail diesel engine. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, v 220, n 3, 2006, p 359-366

13. HIGH VOLTAGE SAFETY MANAGEMENT SYSTEM OF ELECTRIC VEHICLE. Chinese Journal of Mechanical Engineering (English Edition), v 21, n 6, Dec, 2008

14. Estimation method on the battery state of charge for hybrid electric vehicle. Chinese Journal of Mechanical Engineering (English Edition), 2008 Vol21 No3, pp20-25

15. Exploring the Fuel Economy Potential of ISG Hybrid Electric Vehicles Through Dynamic Programming, International Journal of Automotive Technology, 2008. 8(6) pp.781-790

16. Analysis of Common Rail Pressure Build-upAnd Assistant-Establishment of Engine Phase Position in Starting Process. SAE 2006-01-3525

17. Developing a multi-node calibration system for CAN bus based vehicle. 2006 IEEE International Conference on Vehicular Electronics and Safety, ICVES, 2006 IEEE International Conference on Vehicular Electronics and Safety, ICVES, 2006, p 199-203

18. Steady-state optimization of internal combustion engine for hybrid electric vehicles. 2006 IEEE International Conference on Vehicular Electronics and Safety, ICVES, 2006 IEEE International Conference on Vehicular Electronics and Safety, ICVES, 2006, p 428-433

19. The development of a real-time hardware-in-the-loop test bench for hybrid electric vehicles based on multi-thread technology. 2006 IEEE International Conference on Vehicular Electronics and Safety, ICVES, 2006 IEEE International Conference on Vehicular Electronics and Safety, ICVES, 2006, p 470-475

20. Regenerative braking algorithm for a parallel hybrid electric vehicle with continuously variable transmission. 2007 IEEE International Conference on Vehicular Electronics and Safety, ICVES, 2007 IEEE International Conference on Vehicular Electronics and Safety, ICVES, 2007, p 4456389

21. Fuzzy logic based control for ISG hybrid electric vehicle. Proceedings - ISDA 2006: Sixth International Conference on Intelligent Systems Design and Applications, v 1, Proceedings - ISDA 2006: Sixth International Conference on Intelligent Systems Design and Applications, 2006, p 274-279

22. The energy optimization mathematic algorithm on multi-energy resource powertrain of fuel cell vehicle. Journal of Donghua University (English Edition), v 24, n 4, 2007, p 500-505

23. Battery management system for electric vehicle application. 2006 IEEE International Conference on Vehicular Electronics and Safety, ICVES, 2006 IEEE International Conference on Vehicular Electronics and Safety, ICVES, 2006, p 134-138

24. An Adaptive Algorithm Of NiMH Battery State Of Charge Estimation For Hybrid Electric Vehicle, 2008 IEEE International Symposium on Industrial Electronics

25. Model-Based Energy Management Strategy Development for Hybrid Electric Vehicles. 2008 IEEE International Symposium on Industrial Electronics

26. Development of test platform for diesel hybrid electric vehicles. Jiangsu Daxue Xuebao/Journal of Jiangsu University (Natural Science Edition), v 28, n 2, March, 2007, p 119-122

27. The Design and Study of a New Parallel Hybrid Electric Power Train System(英文)。International Symposium on Internal Combustion Engine 2007, Shanghai P162~167

28. Diesel Hybrid Vehicle Developement Trend and Its Impact on Fuel Economy And Emission. Proceeding of the 2nd International Symposium on "Clean and High-Efficiency Combustion in Engines", ISCE'2006，2006,p364-370

29. Development of A New Calibration and Monitoring System for In-vehicle Electronic Control Units Based on CAN calibration protocol Proceedings of the I MECH E Part D Journal of Automobile Engineering,2005.12,Vol 219,No12.p1381~1389

30. A Novel Flexible Hybrid Electric System and the Adaptive Online-Optimal Energy Management Controller for Plug-in Hybrid Electric Vehicles,Journal of Central South University of Technology，2011（已收录），SCI，通讯作者

31.双离合器混合动力系统稳态工况的仿真[J].农业工程学报,2011,(12):57-63.

32.Adaptive PID regulator based on neural network for DC motor speed control, Electrical and Control Engineering (ICECE), 2011 International Conference on Digital Object Identifier: 10.1109/ICECENG.2011.6057865 Publication Year: 2011，Page(s): 1950 — 1953

教学工作

课程名称：汽车发动机电控技术
授课对象：研究生
学时数：36
学分：2

课程名称：汽车传动汽车匹配优化
授课对象：研究生
学时数：36
学分：2

课程名称：汽车发动机电子控制
授课对象：本科
学时数：36
学分：2

课程名称：C语言程序设计
授课对象：本科
学时数：36
学分：2

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无级变速混联式混合动力驱动系统，发明专利，申请号200610029878.3，中国
串并联混联式混合动力系统，发明专利，申请号200610027400.7，中国
　模块电池，发明专利，申请号200710022994.7，中国
镍氢动力蓄电池组智能充电控制方法，发明专利，申请号200710022995.1，中国
实时的电控发动机在线标定监测系统，发明专利，申请号200710039363.6，中国
对置双极性电池，发明专利，申请号200910046689.0，中国
正负极片对置共集流体极板组及其共集流体模块电池，发明专利，申请号200910051175.4，中国
多模式无级变速混联式混合动力驱动系统，发明专利，申请号200910051174.X，中国
双离合器无级变速混联式混合动力系统，发明专利，申请号2010101500250
电机悬浮式同轴并联混合动力驱动系统，实用新型专利，申请号201020163447.8
双离合器并联混合动力驱动装置，实用新型专利，申请号201020282367.4
双离合器电机悬浮式并联混合动力驱动系统，发明专利，申请号201010246181.8
双离合器电机悬浮式同轴并联混合动力系统，实用新型专利，申请号200920241547.5
选择性催化还原尿素空气预混合喷射系统，发明专利，申请号201010523722.7
四模无级变速混合动力驱动系统，发明专利，申请号201010618237.8
多模式无级变速混联式混合动力驱动系统，发明专利，申请号201110058257.9

学术兼职

2002～2006，上海市内燃机学会秘书长
2006～至今，国家缺陷汽车产品鉴定专家
2004～2005，国家发改委汽车电子专家
2009～至今，中国能源学会常务理事

2007～至今，内燃机学报、内燃机工程特邀编委
2010～，柴油机设计与制造，编委

荣誉奖励

教育部科技进步二等奖
广东中山市科技进步一等奖
上海市首届汽车创新人才精英赛，精英奖

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