Teaching Manual for Automotive Service Engineering

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Zhang Tiezhu

Name	*Zhang Tiezhu*
Post	*Teaching area and designation : Automotive Service Engineering/Professor*
Academic career	*Bachelor's Degree（Vehicle Engineering）Jilin University of Technology 1982* *Master's Degree（Vehicle Engineering）* Jilin Institute of Technology *1985* *Doctoral Degree（Vehicle Engineering）Jilin University of Technology 1991*
Employment	*Professor* *Qingdao University* Before February 2025 *Professor* *Hengxing University* Since March 2025
Research and development projects over the last 5 years	Research on Electrical Performance Failure Mechanism of Batteries Key Special Project of New Energy Vehicles, National Key R&D Program (Ministry of Science and Technology of China)*1081* 2017.08—2021.06 Dynamic Characteristics Analysis and Optimal Control of Internal Combustion Constrained Linear Power Generation System National Natural Science Foundation of China (NSFC) *58 2021.01—2024.12* R&D and Industrialization of High-Safety and High-Energy-Density Lithium-Ion Battery Cells Key R&D Program of Shandong Province (Department of Science & Technology of Shandong Province) *350 2017.07—2020.06* R & D of Electromechanical Multi-source Composite Energy Storage System and Equipment for Electric Vehicles Key R&D Program of Shandong Province (Department of Science & Technology of Shandong Province) *190 2020.01—2022.12* Key Technologies and Industrialization Demonstration of Hydrogen -Fueled Hydraulic Constrained Piston Internal Combustion Engine,Special Fund Project for Guiding Local Science and Technology Development by the Central Government *100 2023.11—2025.11*

	Innovation R & D Platform for Multi - Cylinder Constrained Linear Power Generation Technology Municipal - level Platform Construction Plan (Zibo Science and Technology Bureau) *150 2020.01—2021.12* R & D Platform for Intelligent Special Vehicles Municipal - level Platform Construction Plan (Zibo Science and Technology Bureau) *100 2021-01—2022-12* R & D of HCPE**Constrained Piston Hydraulic Engine Technology Horizontal Cooperation Project of Enterprises (Taiyuan Heavy Machinery Group Yuci Hydraulic Industry Co., Ltd） *50 2020.3—2025.3* Technical Research and Product Development of Integrated Electric Air Pump for Air Suspension *Shandong Tai Chin Electromechanical Technology Co., Ltd. 100 2022.08—2027.7*

Patents and proprietary rights	Technical Research and Product Development of Integrated Electric Air Pump for Air Suspension 2020. *0 8* 2021. *0 3* HCPE**Constrained Piston Hydraulic Engine Technology	*2022.*
Important publications over the last 5 years	*An energy active regulation management strategy based on driving mode recognition for electro-hydraulic hybrid vehicles Energy A2 2 2023.12* *Research on electro-hydraulic ratios for a novel mechanical-electro-hydraulic power coupling electric vehicle Energy A2 2 2023.05* *Energy conversion efficiency and performance analysis of hydrogen-fueled hydraulic engine (HFHE) using integrated simulation Energy A2 5 2025.03* *Energy management strategy of a novel mechanical-electro-hydraulic power coupling electric vehicle under smooth switching conditions Energy Reports A3 2 2022.04* *Hydrogen engine operation strategies: Recent progress, industrialization challenges, and perspectives* *International Journal of Hydrogen EnergyA3 3 2022.10*	

	Promoting the Multi-format Integrated and Healthy Development of Low-Altitude Economy Frontiers *B1 1 2024.09*	
Activities in specialist bodies over the last 5 years	Chief Scientist of National Key Program Project Expert of the Working Group for Formulation and Coordination of International Standards and Regulations for Electric Vehicles Vice Chairman of China Battery Industry Association Deputy Director of the Management Committee and Member of the Academic Committee of the National Engineering Research Center for Electric Bus Electronic Control and Safety Deputy Director of the Management Committee and Deputy Director of the Academic Committee of the National and Local Joint Engineering Research Center for Intelligent Power Integration Technology of Electric Vehicles Deputy Director of the Academic Committee of the National International Joint Research Center for Precision Agricultural Aviation Pesticide Spraying Technology	

	Expert of the Shandong Higher Education Institution Evaluation Committee Educational Supervisor of Shandong Province Chairman of the Teaching Guidance Committee for Transportation - related Majors (Including Naval Architecture and Ocean Engineering) in Undergraduate Education of Shandong Province Deputy Chairman of the Expert Advisory Committee for the New Energy Field of the Shandong Provincial Science and Technology Innovation Strategy Advisory Expert Committee Honorary Chairman of the Shandong Society for Internal Combustion Engine Chairman of the Advisory Committee of the Shandong Equipment Manufacturing Industry Association	

Bai Limin

Name	*Bai Limin*		
Post	*Automotive Service Engineering/Associate Professor*		
Academic career	*Master's Degree* （Applied Engineering of Transport Vehicles） *Bachelor's Degree* （Transportation）	*Northeast Forestry University* *Beihua University*	*2003.09-2006.07* *1999.09-2003.07*
Employment	Program Leader *Hengxing University 2023.9-now*		

Research and development projects over the last 5 years	Construction and Sharing of Online Course Resources for Adult Higher Education, Research Project on the Reform and Development of Adult Higher Education in Shandong Province, Shandong Adult Higher Education Research Association, Approved on May 26, 2021, Concluded on October 25, 2022, Principal Investigator, Lu Chengyan Han [2021] No. 10, YJH20210043, Funded 1,000 Yuan Research on the Reform of Craftsman-type Talent Training Mode under the Background of School-Enterprise Cooperation 2021 "Industry-Education Integration and School-Enterprise Cooperation" Educational Reform Research Project China Institute of Electronic Labor Approved on January 15, 2022, Concluded on December 19, 2022 Principal Investigator CELA [2022] No. 011, Ciel2021020 2023 Shandong Provincial Education Science Research Project: Exploration and Practice of Manufacturing Talent Training Based on Post-Course-Competition-Certificate + Ideological and Political Integration Shandong Institute of Youth Education Research Approved on April 6, 2023, Concluded in April 2024 Principal Investigator [23SC023] Selection and Construction of the First Batch of University-Level Teaching Innovation Teams: Electromechanical Integration Technology Dezhou Vocational College of Science and Technology Principal Investigator July 3, 2023 The Third Batch of Huang Danian-style Teaching Teams in Shandong Provincial Universities Shandong Provincial Department of Education Main Participant (6/46) July 17, 2023 Vocational Education "Skill Master" Studio (2023-2025) Shandong Provincial Department of Education Main In-school Participant (4/15) August 11, 2023 Automotive Technology and Knowledge: Introduction to New Automotive Electrical Technologies, Research and Innovation Project Management Center of China Academy of Management Science, Approved in October 2023, Concluded in October 2024,Principal Investigator, JKSC14430 Research on the Coupling Path of "Three-Full Education" Led by Party

	Building in Colleges and Universities, 2024 Grassroots Party Building Research Project (Key Self-Funded Project), 2024DJ018, Shandong Institute of Youth Education Science Research, Approved on April 10, 2024, Principal Investigator Research on the Integration of Aesthetic Education Courses and Automotive Service Engineering Professional Courses in Colleges and Universities, 2024 Aesthetic Education Research Project (Key Project) of Shandong Association of Senior Professors, Approved on July 18, 2024 Principal Investigator,MYKTB0002 Research on Information-based Teaching and Cultivation of Students' Autonomous Learning Ability in Private Schools, 2024 Planning Project (School Development Category) of China Association for Private Education China Association for Private Education, Approved in July 2024, Principal Investigator, CANFZG24006 Research on the Construction of Curriculum Evaluation System for Automotive Service Engineering Major in Digital Environment, 2024 Project of "14th Five-Year Plan" for Qingdao Education Science Qingdao Education Science Planning Leading Group, Approved in August 2024, Principal Investigator, QJK2024E056 Research on the Diversification and Intelligence of Academic Evaluation for Automotive Service Engineering Major under Digital Empowerment, 2024 Teaching Reform Research Project of Hengxing University, Hengxing University, Approved on September 20, 2024 Principal Investigator, HXJY2024J007 Research on Academic Quality Evaluation of Automotive Service Engineering Students under Digital Empowerment, 2024 Shandong Provincial Undergraduate Teaching Reform Research Project (General Project), M2024293

Cooperation with industries over the last 5 years	*None*
Patents and proprietary rights	A Punching Device for Irregular Metal Parts of Vehicle *ZL202220388890.8* *2022* A Power Output Device with Multi-clutch *ZL202210844285.1* *2022*
Important publications over the last 5 years	*Selected recent publications from a total of approx：8* Analysis of Key Technology of Automotive Lightweight Design In Improving Fuel Economy in *Internal Combustion Engine & Parts,2024.8,1/2,2024(08): 19-21,ISSN1674-957X* *Influence and Balance Analysis of Intelligent Safety Systems on Automotive Design Innovation in Auto Time ,2024.7, 1/1,2024(07): 141-143,ISSN1672-9668* Optimization of Automotive Interior Space Design Based on Ergonomics , Issue 3, 2024 *in* Automobile and New Powertrain*,1/2,2024(03): 56-59,ISSN2096-4870* *Discovery Science: Research and Practice on Manufacturing Talent Cultivation Integrating Post-Course-Competition-Certification with Ideological Education, Nov 2023, 1st/2 authors, 2024(11):94, ISSN2095-588X* *China Science and Technology Information*: Reform of Craftsman Talent Cultivation Model in Industry-Education Collaboration Context, Dec 2022, 1st/1 authors, 2022(12):37, ISSN1001-8972 *Education and Social Science*: Analysis of Online Course Resource Development for Adult Higher Education in Regional Universities, May 2022, 1st/1 authors, 2022(05):61, ISSN1007-808 *Automotive Testing Journal*: Development of Digital Elite Courses for Automotive Electrical Maintenance, Dec 2020, 1st/1 authors, 2020(12):58-66, ISSN1672-4895

	New Education Era: Analysis of Information Resource Sharing in Vocational Automotive Programs, Sep 2020, 1st/1 authors, 2020(09):246, ISSN2095-4743
Activities in specialist bodies over the last 5 years	Society of Automotive Engineers of Shandong Committee Member *2024.05-Now* Vocational Education Training and Evaluation Organization in the Field of Automobile Specialty Professional Skill Evaluator for Intelligent New Energy Vehicles *2020.11-Now*

Jiang Peigang

Name	*Jiang Peigang*		
Post	*Automotive Service Engineering/Professor*		
Academic career	*Doctoral Degree*（Mechanical Manufacturing and Automation）	*Xidian University*	*2003.9-2009.6*
	Master's Degree（Construction Machinery）	*Dalian University of Technology*	*1986.9-1989.3*
	Bachelor's Degree（Mechanical Manufacturing Industry and Equipment）	*North China Electric Power University*	*1982.9-1986.7*
Employment	*Dean*	*Hengxing University*	*2024.1-Now*
	Dean	*Qingdao University of Technology*	*1989.3-2023.12*
Research and development projects over the last 5 years	Led the project "Development of Teach-in Type Full-automatic Anti-oxidation Spraying Equipment", which won the Second Prize of Qingdao Science and Technology Progress Award. Led the reform project "Reform of Mechanical Design, Manufacturing and Automation Major", which won the Second Prize of Shandong Provincial Educational Reform Achievements Award. Presided over and completed the scientific research project of Shandong Provincial Department of Education: "Research on Intelligent Control System for High-efficiency Cylinder Block (Cover) Shot Blasting Cleaning". Presided over and completed the "Full-automatic Steel Plate Cleaning and Marking Control System" entrusted by Qingdao Foundry Machinery Group.		
Cooperation with industries over the last 5 years	*None*		

Patents and proprietary rights	*None*
Important publications over the last 5 years	*Selected recent publications from a total of approx 3.* *P.Jiang,X.M.Li,F.Guo,J.Chen.interferometry measurement of spin effect on sliding EHL,Tribology Letters,2009 , 33:161-168 (SCI:408IF)。* Edited by Jiang Peigang et al., Mechatronic System Design [M], Beijing: China Machine Press, 2003. Edited by Jiang Peigang, Mechatronic System Design (2nd Edition) [M], Beijing: China Machine Press, 2021. This textbook is listed in the 13th Five-Year National Key Publication Planning and was awarded as a First-Class Textbook of Shandong Province in 2023.
Activities in specialist bodies over the last 5 years	*None*

Fan Zhimin

Name	Fan Zhimin		
Post	Automotive Service Engineering/Professor		
Academic career	*Doctoral Degree(Mechanical Design and Theory)*	*Chongqing University*	*1998.12*
	Master's Degree(Mechanical Design and Theory)	*Taiyuan University of Technology*	*1993.05*
	Bachelor's Degree (Foundry Engineering)	*Taiyuan University of Technology*	*1986.07*
Employment	*Professor*	*Hanyang University*	*2009.08-2010.01*
	Professor	*Hengxing University*	
		Qingdao University of Science and Technology	*2024.7-Now*
	Professor	*Harbin Institute of Technology (Weihai)*	
	Associate Professor	*Taiyuan University of Technology*	*2001-2024.07*
	Lecturer		*1998.12-2000.12*
			1986.07-1998.11

Research and development projects over the last 5 years	Research on Transient Contact Characteristics and Pitting Resistance Load Capacity of Double Involute Gear Transmission (No. 52075279), National Natural Science Foundation of China (General Program), Jan. 2021 - Dec. 31, 2024, 580,000 Yuan, (Principal Investigator, 1/10 team members) Research on Key Technical Issues of Suspension System for Electric Vehicles with Wheel Hub Motor Distributed Drive (No. 2019GGX104088),Shandong Provincial Key Research and Development Program, Sept. 2019 - Aug. 2022, 200,000 Yuan,(Principal Investigator, 1/10 team members) Research on Contact Strength of Double Involute Gear Transmission Based on Fluid-Solid-Friction Multi-Field Coupling (No. ZR2018MEE014) Shandong Provincial Natural Science Foundation (General Program), Mar. 2018 - Jun. 2021, 170,000 Yuan,(Principal Investigator, 1/9 team members) Research on Energy Consumption Characteristics of Wheel Side Reducer for Electric Vehicles Based on Thermo-Fluid-Solid Multi-Field Coupling (No. ZR2021ME197),Shandong Provincial Natural Science Foundation (General Program), Jan. 2022 - Dec. 31, 2024, 100,000 Yuan,(Principal Researcher, 2/8 team members)
Cooperation with industries over the last 5 years	*None*
Patents and proprietary rights	*Title* *Year* *1.* The Thrust Test Platform for Deep-Sea Thrusters *ZL201811434458.2* *2020.09* 2. A Control Method for Electric Wheel System with Built-in Motor Suspension *ZL201910266111.X* *2022.03*

	3. A Novel High-Efficiency and Convenient Fruit Bagging Device *ZL201911226287.9 2022.05* 4. A Partially Detachable Vibration-Damping Gear *ZL202110150438.8 2022.08* *5.* An Automatic Restocking Shelf for Supermarket Fruits and Vegetables *ZL202110498478.1 2022.8* *6.*A Fastening Tool for Bolt-Nut Fastening Assembly *ZL202111187995.3 2023.4* *7.* An Automatic Inner Wall Cleaning Machine for Narrow-Mouth Bottles *ZL202210498073.2 2023.05* *8.* A Noise and Vibration Reduction Device for Horizontal Machine Tools *ZL201810047951.2 2024.05* *9.*An Automatic Positioning and Conveying Device for Packaging Boxes ZL202110810940.7 2023.7
Important publications over the last 5 years	*Selected recent publications from a total of approx 20.* Representative Research Papers *1.* Yin Zhaoming,*Fan Zhimin *,* Study on Deviation of Conveyor Belt Based on Multi-body Dynamics Characteristics,Journal of Mechanical Engineering*, 2020,56(1):37-46* (Top Journal) *2.Yin Zhaoming,Fan Zhimin *, Wang Mingkai. Thermal elastohydrodynamic lubrication characteristics of Double involute gears at the graded position of tooth waist, Tribology International,2020(144):106028* *3. Yin Zhaomin, Fan Zhimin *, Jiang Feng. Study on oil film stiffness of double involute gears based on thermal EHL theory,Chinese journal of mechanical engineering.(2021) 34:60* *4. Xue Fufeng,Fan Zhimin *.Kinematics and control of a cable-driven snake-like manipulator for underwater application, MECHANICAL SCIENCES, 2022,13(1):495-504.*

	*5. Yin Zhangming, Jiang Feng, Fan Zhimin *.*Temperature Field of Double Involute Gear Based on TEHL,Tribology, *2021,41(2):268-27*(EI indexed, currently cited 27 times) *6. Yin Zhaomin, Fan Zhimin *.Study on Surface Adhesive Wear and Wear Life of Double Involute Gears Under Mixed Elastohydrodynamic Lubrication, Journal of Tribology-Transactions of the ASME 2022, 144:091601* *7. Chen Liang, Fan Zhimin*, Yin Zhaomin etl.* Fractal Model of Double Involute Gears Time - Varying Meshing Stiffness Considering Friction Factors , Tribology, *2023,43(4):358-367*(EI indexed, currently cited 8 times) *8.Zhao Pingping, Fan Zhimin *. Optimization of electric vehicle with in-wheel* *motor as dynamic vibration absorber considering ride comfort and motor* *vibration based on particle swarm algorithm,Proceedings of the Institution of* *Mechanical Engineers, Part K: Journal of Multibody Dynamics, 2023, 237(1): 49- 59*

	*9.Zhao Pingping, Fan Zhimin *.Design, modeling, and research on vertical performance of a drive system with in-wheel motor as dynamic vibration absorber,Proceedings of the Institution of Mechanical Engineers , Part D: Journal of Automobile Engineering, 2023, 237(4): 862-877* *10. Jiang Yu, Fan Zhimin, Jiang Chunlei, Sun Xuru etl. Load distribution of double involute gears based on principle of minimum potential energy,* Journal of Mechanical & Electrical Engineering, *2024,41(4):559-569*		
Activities in specialist bodies over the last 5 years	*Organisation*	*Role*	*Period*
	The 8th National Gear Standardization Technical Committee	Committee member	*2022.08-2027.07*

Cheng Xuelian

Name	*Cheng Xuelian*		
Post	*Teaching area and designation: Automotive Service Engineering Associate Professor*		
Academic career	*Master's Degree (Mechanical Engineering)* *Bachelor's Degree (Mechanical Design, Manufacturing and Automation)*	*Qilu University of Technology* *Dezhou University*	*2015.5-2018.6* *2007.9-2011.6*
Employment	*Position:* Director of Teaching and Research Office Lecturer	*Employer:* *Hengxing University* *Shandong Huayu University of Technology*	*Period* *2021.08-Now* *2011.08-2021.07*
Research and development projects over the last 5 years	"Interchangeability and Measurement Technology", 2024 Provincial-Level First-Class Course Teaching Achievement Award: Second Prize for "Computer-Aided Drawing (CAD)" Course Development Exploration of "*Mechanical Drawing, Mapping and CAD Training*" Based on CAI Technology, 2020 University-Level Teaching Reform Project (General Program, No. 2020JG41) Exploration of "Mechanical Engineering Design" Course Development via Flipped Classroom Model, 2022 University-Level Teaching Reform Project (General Program, No. HXJY2022J039) "Mechanical Engineering Design",2022 University-Level Curriculum Ideology and Politics Project Research on New Engineering Discipline Development in Application-Oriented Universities, 2023 Shandong Province Education Science "14th		

	Five-Year Plan" Project (No. 2023ZC378) “Computer-Aided Drawing (CAD)", 2024 University-Level Offline First-Class Course "Computer-Aided Drawing (CAD)", 2024 University-Level Curriculum Ideological and Political Project "Mechanical Engineering Design",2024 University-Level Examination Reform Project Research on Academic Quality Evaluation for Automotive Service Engineering Students Empowered by Digitalization, 2024 Shandong Province Undergraduate Teaching Reform Project (General Program, No. M2024293)
Cooperation with industries over the last 5 years	*None*

Patents and proprietary rights	A Lighting Detection Device for Lamps	*ZL 2016 0747584.3*	*2*	*2016 2017*
	A Stacking Device for Tobacco Leaves	*ZL 2016 0747580.5*	*2*	*2018 2021*
	A Lighting Detection Device for Lamps	*ZL 2016 0558494.4*	*1*	*2022 2022*
	A Side Leakage Detector for Electric Kettles	*ZL 2020 1486423.6*	*2*	*2024*
	A Wheel Mechanism for Stair-Climbing Carts	*ZL 2021 1727262.X*	*2*	
	A Laser Cutting Support Platform for Thin Steel Plate Specimens	*ZL 2021 1444661.5*	*2*	
	An Oil Spill Treatment Device for Marine Ecological Protection	*ZL 2023 3479493.5*	*2*	
Important publications over the last 5 years	*Selected recent publications from a total of approx.: 7* *Cheng, Xuelian; Xin, Yu; Li, Weiliang; Cui, Hongwei ; Qiao, Lei.Prediction of Rockburst Hazard in Deep Coal Mining Based on Random Forest.2024 IEEE 6th International Conference on Power, Intelligent Computing and Systems.2024, 7: 688-693* *Xuelian Cheng;Weiliang Li; Xin Yu; Ying Xu; Xianshuo Huo.Evaluation of Natural Gas Hydrate Resources Based on Data Analysis.2024 International Conference on Computer,Electronic and Materials Engineering.2024,8:1-10* Cheng Xuelian, Cui Hongwei. Research on Flipped Classroom Instructional Design for the "Mechanical Engineering Design" Course. Shanxi Science and Technology News. 2024, B06 *Cheng Xuelian,Chen Fude.The Application of CAI Technology in the Course of "Mechanical Drawing，Mapping and CAD Training". M*odern Information Technology.*2021,5(01)Mechanical Drawing Surveying & CAD Training* Cui Hongwei, Cheng Xuelian. Blended Online and Offline Teaching			

	Reform for Digital Courses. Shanxi Science and Technology News. 2024, B06 *Cheng Xuelian.Research and Practice on the reform of teaching content and assessment method of NC machine tool programming and operation.* Automobile Applied Technology.*2020,45（23）186-188* *Qiao Huaying, Wei Liwu,* Wu Weihua*, Cheng Xuelian. Structure Design of Blanking Die for Outer Plate Support Plate of Automobile Stamping Parts.* Automobile Applied Technology.*2021，46（17）142-145*		
Activities in specialist bodies over the last 5 years	*Organisation* China Machinery Industry Federation	*Role* Senior Evaluation Expert for Machinery Industry Talent Assessment	*Period* 2025.03-2028.03

Wang Shoucheng

Name	*Wang Shoucheng*
Post	*Teaching area and designation: Automotive Service Engineering/Professor*
Academic career	*Bachelor's Degree（Mechanical Engineering）* *Harbin Institute of Technology* *1980-1984* *Master's Degree（Mechanical Engineering）* *Harbin Institute of Technology* *1984-1987*
Employment	*Position* *Employer* *Period* *Teaching Assistant* *Qingdao Institute of Chemical Technology* *1987-1989* *Lecturer* *Qingdao Institute of Chemical Technology* *1989-1995* *Associate Professor* *Qingdao Institute of Chemical Technology* *1995-2002* *Professor* *Qingdao University of Science and Technology* *2002-2024* *Professor* *Hengxing University* *2025—*
Research and development projects over the last 5 years	*None*
Cooperation with industries over the last 5 years	*Project title：* Industry-University-Research Collaboration Project with Qingdao Zhongxiang Environmental Protection Technology Co., Ltd *Partners：* Qingdao Zhongxiang Environmental Protection Technology Co., Ltd

Patents and proprietary rights	*Title* *Year* A New Transmission Control System for Chassis *2013* Dynamometer *2013* A New Ejection Mechanism for Waste Baler A Horizontal Waste Baler with Dumper Feeding *2015* System A Locking Mechanism for Discharge Door of *2015* Waste Baler *2017* An Oil-Water Separator for Catering Industry *2018* A Flax Seed Orientation Adjustment Apparatus
Important publications over the last 5 years	*Selected recent publications from a total of approx:16* *1. Hu Xiuxiu, Wang Shoucheng, Li Shuai, Li Zhifu. Reliability Analysis of Hydraulic System of Buried Garbage Briquetting Machine*[J]. Machine Tool & Hydraulics.2020,48(11):212-216. *2.* Li Shuai, Wang Shoucheng, Hu Xiuxiu.*Static Analysis of Pushing Head of Buried Garbage Press Based on ANSYS Workbench.*[J].*Machine Building & Automation.* 2020(4):145-148.

3. Li Shuai, Wang Shoucheng, Hu Xiuxiu, Cheng Yuan, Ma Yunyun.*Design of Intelligent Lighting Control System for Classroom Based on PLC.* [J].*Techniques of Automation and Applications.2020Vol39No.9.P64-68*

4. Cheng Yuan, Wang Shoucheng, Li Shuai, Hu Xiuxiu. Static Analysis of Loader Working Device Based on ANSYS Workbench*.* [J].Ship Electronic Engineering*.*2020,40(8):137-140.

5. Cheng Yuan, Wang Shoucheng. . *Design of Temperature and Humidity Control System of Poultry House Based on Neural Network PID.*[J]. Computer & Digital Engineering.*2021 年第一期*2021,49(375):64-68.

6. Wang Shoucheng, Rong Yiming (Eds.). *Hydraulic and Pneumatic Transmission* (2nd ed.)[M]. Beijing: Peking University Press, 2021.

7. Li Mingtong, Wang Shoucheng, Zhang Xin.*The Segmentation Method of License Plate Characters Based on MATLAB Image Processing.* [J].Changjiang Information & Communications2021,34(222):116-119.

8. Chang Xiaodong, Wang Shoucheng, Li Zhifu. *Motion Simulation and ANSYS Analysis of Key Components of Garbage Compactor.* [J]*Machine Building & Automation.*2021,50(275):132-135+149.

9. Song Chuanxi, Wang Shoucheng. Analysis of Quick Die Changing Mechanism Based on ANSYS Workbench.[J]*Ship Electronic Engineering,* ,2021,41(327):199-203.

10. Yi Binghui, Wang Shoucheng, Li Mingtong. *Reliability Analysis of Plug-pin Type Lifting Platform.*[J]*Hydraulic System Hydraulics Pneumatics & Seals.*2022(8):36-41.

11. Wang Peng, Wang Shoucheng. *Analysis of Hinge Shaft of Dump Box of Garbage Block Press Based on ANSYS.* [J]Computer & Digital Engineering*.*2022(7):1620-1623.

12. Zhang Xin, Wang Shoucheng, Yi Binghui. *Design of Hydraulic Control System for Feeding Mechanical of Sanitation Garbage Truck Based on PLC. [J]Ship Electronic Engineering.*2022(6):55-59.

13. Li Mingtong, Wang Shoucheng, Yi Binghui. RReliability Analysis of Hydraulic System for Horizontal Waste Paper Bale [J]. Hydraulics

	Pneumatics & Seals,2022,42(293):52-56. *14.* Yi Binghui, Wang Shoucheng. MMulti-objective Optimization Design of Locking Hook Based on Response Surface Method[J]. Computer & Digital Engineering,2024,52(412):598-604. *15.*Lin Shuaicheng, Wang Shoucheng, Zhang Xin. Reliability Analysis of Hydraulic System of New Power Battery Lift Vehicle[J]. Ship Electronic Engineering,2024,44(361):138-141+196. *16.* Niu Zhiyu, Wang Shoucheng, Yi Binghui. Safety and Stability Analysis of Bolt-type Hydraulic Lifting Platform Based on Finite Element[J]. Computer & Digital Engineering,2025,53(423):63-66+76.
Activities in specialist bodies over the last 5 years	*Organisation* / *Role* / *Period* 9th Council of National Manufacturing Automation Research Association for Higher Education Institutions / Council Member / *2023.01-Now* Executive Council Member / *2021.01-Now* Qingdao Association for Science of Science and Research Management / Council Member / *2022-2014* 7th Council of International / Member / *2024- Now*

	Student Education Management Branch, China Association of Higher Education Qingdao Association of Senior Scientists and Technologists	Council Member

Zhuang Xinying

Name	*Zhuang Xinying*		
Post	*Teaching area and designation：Automotive Service Engineering/ Associate Professor*		
Academic career	*Bachelor's Degree*（Automation） *Master's Degree*（Business Administration）	*Qingdao University of Science and Technology* *Ocean University of China*	*2002.9-2004.7* *2008.4-2012.1*
Employment	*Position：* Party Branch Secretary and Teaching Assistant to Dean of Intelligent Equipment School	*Employer：* *Hengxing University* *Qingdao Feiyang Vocational and Technical College*	*Period* *2013.8-Now* *2024.7-2013.8*
Research and development projects over the last 5 years			

Project Name/Research Focus	Period & Funding Info	Funding Amount (10K RMB)
Reform and Innovation in Building Intelligent Manufacturing Specialty Clusters under the New Engineering Education Initiative	Shandong Province Undergraduate Teaching Reform Research Project, 2022	*None*
Research on Innovative Industry-Education Integration Mechanisms for Cultivating Applied Talents in Private Universities	Shandong Higher Education Association Project, 2023	*0.5*

	Challenges and Countermeasures in Cultivating "Dual-Leader" Teacher-Party Branch Secretaries under the New Quality Productivity Context	Shandong Youth Education Research Institute Grassroots Party Building Research Project, 2024	*None*
	Research on Online Teaching Methods for Engineering Disciplines	University-Level Teaching Reform Project, 2020	*0.5*
	Exploration and Practice of New Engineering Industry-University Cooperation Models Based on Industry-Education Integration	University-Level Teaching Reform Project, 2021	*0.5*
	Problems and Optimization Measures for Secondary College Administration under New Circumstance	University-Level Higher Education Research Project, 2023	*0.5*

Cooperation with industries over the last 5 years

Project Title	Duration & Information	Collaborating Organization	Funding (10K RMB)
Layout Design of Automotive Grille	*2021.9-2021.12*	Qingdao Zhongke Ruier Industrial Co., Ltd.	*4*
Bionic Morphology-Based Automotive Grille Design	*2021.11-2022.5*	Qingdao Zhongke Ruier Industrial Co., Ltd.	*2.3*

	River Waste Cleaning System Design	*2024.3.11-2025.3.10*	*Shandong Zhiyin Future Technology Innovation Co., Ltd.*	*5*
	Dual-Station Feeding Robot Development for Special-Shaped Auto Parts Processing	*2024.6.10-2025.6.10*	*Shandong Zhongqi Union Coach Co., Ltd*	*200*
	Smart TV Software Testing and Development	*2024.10.8-2025.10.7*	Qingdao North Internet Information Technology Co., Ltd.	*5*

Patents and proprietary rights	*Title*	*Year*
	An Automatic Seeding and Film Mulching Machine for Crops	*2021.10*
	A Force-Amplifying Self-Locking Clamping Device for Shaft Ends	*2021.7*
	A Tangential Acceleration Elastic Collision Simulation Device	*2021.11*
	A Two-Axis Transmission Disassembly/Assembly Rotation Stand	*2021.4*
	An Oil Spill Treatment Device for Marine Ecological Protection	*2024.8*
	A Metal Spring Plate Installation Tool	*2024.10*
	A Novel Automotive Wiper System	*2024.9*

	A Rail-Type Parking System — *2024.10*
	An LED Strip Bracket Installation Tool — *2024.11*
	An Automotive Power Sunshade Curtain — *2024.12*
	An Innovative Vehicle Door Check Mechanism — *2024.12*
	A Drilling Device for Automotive Parts Manufacturing — *2024.12*
	A Retractable Automotive Door Handle — *2024.12*

Important publications over the last 5 years	*Selected recent publications from a total of approx. : 10*			
	Authors	Title	Journal	Date/Volume/Issue/Pages
	Zhuang Xinying, Xiu Xia, Dong Chenxin, Li Yangyang, Liu Yanqi	Exploration and Practice of New Engineering Industry-University Cooperation Models Based on Industry-Education Integration	Finance and Market	*2023, 6(15): 85-87*

Zhuang Xinying, Xiu Xia, Yu Xia, Liu Hongyan, Wei Guangyuan	*Research on teaching team construction and formation mechanism of excellent teaching team*	*Advances in Higher education*	*2023,7(35): 194-196*
Zhuang Xinying, Xiu Xia, Xia Fuzhi, Yu Xia, Chen Na	Research on Online Teaching Methods for Engineering Disciplines in the New Era	Shanxi Science and Technology News	*2024, B03*
Wu Yuting, Wang Ling, Zhuang Xinying, Wang Jingjing, Chen Jingfang, Zheng Jie	*A cooperative coevolutionary algorithm with problem- specific knowledge for energy-efficient scheduling in service system*	*Knowledge-Based Systems*	*2023,274 :1 10663*
Wu Tong, Zhuang Xinying, Xiu Xia; Yu Xia; Gu Yuan	Discussion on Research Issues of New Energy Vehicle Charging Systems	Shihezi Science and Technology	*2021(2):3 1- 32*
Wei Zhenlu, Xiu Xia, Zhuang Xinying	*Design of Hydro Pneumatic Spring Balanced Suspension System for Heavy Trailer*	*Internal Combustion Engine & Parts*	*2021(20): 1- 2*

Li Rui, Gong Wenyin, Wang Ling, Lu Chao, Zhuang Xinying	*Surprisingly Popular-based Adaptive Memetic Algorithm for Energy-efficient Distributed Flexible Job Shop Scheduling*	*IEEE TCYB*	*2023,53(12) :13-23*
*R. Li, W. Gong *, L. Wang, C. Lu, Z. Pan, and X. Zhuang*	*Double DQN-based Coevolution for Green Distributed Heterogeneous Hybrid Flowshop Scheduling with Multiple Priorities of Jobs*	*IEEEXplore*	*2024,21（4）：1-13*
Qin Jingjing, Xiu Xia, Qiu Yu, Zhuang Xinying	*Lightweight Structure Design of a New Energy Truck*	*Automobile Applied Technology*	*2024，49（10）：66-70*
Shang Yueming, Feng Yunhao, Duan Liangming, Li Xudong, Fan Huaihang, Zhuang Xinying, Yang Bin	*Electrochemical de-alloying synthesis of porous AuTiCeOx/NC cyclohexene hydrogenation SPE membrane electrode by combination method*	*JOURNAL OF NANOPARTICLE RESEARCH*	*2024，26（5）*
Zhuang Xinying; Li Mingxue; Xiu Xia; Dong Chenxin; He	Exploration and Practice of Industry-Education Integration Mechanisms for Cultivating Applied	Developmental Pedagogy	*2025，6（2）:237-239*

	Linan; Zhao Qingzhi	Mechanical Talents in Private Undergraduate Institutions		

Activities in specialist bodies over the last 5 years	*Organisation*	*Role*	*Period*
	Shandong Society of Automotive Engineers	*Council Member,* 1st Youth Expert Committee Member	2021.5-Now

Dong Chenxin

Name	*Dong Chenxin*		
Post	*Automotive Service Engineering/Lecturer*		
Academic career	*Master's Degree*（Engineering Management） *Bachelor's Degree*（*Vehicle Engineering*）	*China University of Petroleum (East China)* *China* Agricultural University	*2019.9-2022.6* *2006.9-2010.6*
Employment	*Vice Dean* Chief Engineer	*Hengxing University* SAIC-GM-Wuling Automobile Co., Ltd.	*2020.10-Now* *2010.8-2020.10*
Research and development projects over the last 5 years	Development of 2.2m Height Class-B RV，Industry Project，Shandong Zhongqi Union Coach Co., Ltd.，2023.08-2024.08，Principal Investigator，¥488,000 Design of Intelligent Smokeless Moxibustion Device，University Project，*Hengxing University*2022.11-2023.03，Principal Investigator，¥41,500		
Cooperation with industries over the last 5 years	*2020.10-2021.9*，Acting General Manager Qingdao Hengxing Robot Co., Ltd. *2021.9-2022.10*，Acting General Manager,Shandong Zhongqi Union Coach Co., Ltd. *2023.4—Now*，Acting Director of Technology & Quality Center,Qingdao Hengxing Group Co., Ltd.		

Patents and proprietary rights	Invention Patents: Fluid handicraft production and transport device Active anti-sway system for shipboard cranes with motion compensation Sterilized sugarcane seedling transport vehicle Regularized algorithm-based radiation sound field reconstruction method Utility Model Patents: Feed inlet structure for self-loading garbage trucks Quick-release connection mechanism for trailer superstructures Superstructure mounting support assembly Retractable vehicle door handle Side panel locking system for transport vehicles Rail-guided parking facility Feeding apparatus for new energy vehicle manufacturing Swing-arm garbage truck superstructure Rear-tipping garbage truck superstructure

Important publications over the last 5 years	*Selected recent publications from a total of approx.: 5* *[1] A knowledge-guided end-to-end optimization framework based on reinforcement learning for flow shop scheduling. IEEE Transactions on Industrial Informatics.* *[2] Co-evolution with deep reinforcement learning for energy aware distributed heterogeneous flexible job shop scheduling. IEEE Transactions on Systems, Man and Cybernetics: Systems.* *[3] Reinforcement learning-based dynamic order recommendation for on-* *demand food delivery. Tsinghua Science and Technology, 2024, 29(2): 356-367.* *[4] An online deep reinforcement learning-based order recommendation framework for rider-centered food delivery system. IEEE Transactions on Intelligent Transportation Systems, 2023, 24(5): 5640-5654.* *[5] An Iterative Greedy Algorithm With Q-Learning Mechanism for the Multiobjective Distributed No-Idle Permutation Flowshop Scheduling, in IEEE Transactions on Systems, Man, and Cybernetics: Systems, vol. 54, no. 5, pp. 3207-3219, May 2024*
Activities in specialist bodies over the last 5 years	*None*

Yu Xia

Name	*Yu Xia*
Post	*Automotive Service Engineering/Associate Professor*
Academic career	*Master's Degree（Vehicle Engineering）* *Shandong University of Technology* *2015.10-2019.12* *Bachelor's Degree（*Trans portation*）* *Shandong Jiaotong University* *2002.9-2006.7*
Employment	Director of Academic Supervision *Hengxing University 2010.9-Now*
Research and development projects over the last 5 years	*Automotive Structure*: Shandong Provincial First-Class Course & Online Open Course (Approved: Jun 2021, PI) *Automotive Structure*: University-Level Curriculum Ideology Demonstration Course (Approved: Nov 2024, PI) *Automotive Marketing*: University-Level First-Class Course (2022.05-2022.12, PI) "Automotive Service Engineering": Shandong Provincial First-Class Major (Approved: Dec 2019, 2nd contributor) Research on Comprehensive Moral Education Systems in Higher Education: University-Level Teaching Reform Project (2022.10-2023.10, PI, General Project/Ideology Special, No.HXJY2022J056) "Four-Force Model" (Integration-Borrowing-Teamwork-Guidance) for Curriculum Development in Private Universities: University-Level Teaching Reform Project (2021.10-2022.10, PI, Incubation Project, No.HXJY2021J078) Vehicle Engineering Program Development under New Engineering Initiative: University-Level Teaching Reform Project (2022.10-2023.10, 3rd contributor, Incubation Project, No.HXJY2022J077) Industry-Academy Collaborative Education in Private Application-Oriented Universities: University-Level Teaching Reform Project (2021.10-2022.10, 2nd contributor, Incubation Project, No.HXJY2021J064)

	New Engineering Industry-Academy Models via Production-Education Integration: University-Level Teaching Reform Project (2021.10-2022.10, 3rd contributor, Incubation Project, No.HXJY2021J097) Blended Teaching Model Innovation: University-Level Project (2022.10-2023.10, 5th contributor, General Project, No.HXJY2022J044)
Cooperation with industries over the last 5 years	*None*
Patents and proprietary rights	Two-Axis Transmission Assembly/Disassembly Rotation Stand *ZL202022059285X 2021* Portable Electrical Engineering Teaching Demonstration Device *ZL202323283645.4 2023* Retractable Vehicle Door Handle *ZL2024 2 2024* Rail-Guided Parking System *0449010.2 2024* *ZL2024 2 0508558.X*

Important publications over the last 5 years	*Selected recent publications from a total of approx.：6* *International Education Forum*: Mechanism Construction and Implementation Pathways of Comprehensive Moral Education in Private Universities, Aug 2024, 1st/3 authors *Shanxi Science and Technology News*: Research on Online Teaching Methods for Engineering Disciplines in the New Era, Mar 2024, 4th/5 authors, 2024(07):141-143, ISSN1672-9668 *《Frontier of Higher education》Research on teaching team construction andformation mechanism of excellent teaching team，2024.3，3/5* *Pedagogy - Teacher Education Forum*: Reflections on Promoting Curriculum Development through Connotative Improvement in Private Universities, Jun 2022, 1st author *Shihezi Science and Technology*: Research on New Energy Vehicle Charging System Issues in Qingdao, Feb 2021, 4th/5 authors *International PR*: Development of Smart Small Household Appliances Based on Internet+, Jul 2019, 1st author
Activities in specialist bodies over the last 5 years	Shandong Society of Automotive Engineers Committee Member *2020.5-Now*

Xu Yanyan

Name	*Xu YanyanXuYanyan*
Post	*Automotive Service Engineering/Lecturer*
Academic career	*Lecturer* *Hengxing UniversityQingdao University of Science and Technology University of Jinan* *2024-present* *Master's Degree (Engineering)* *2020-2023* Bachelor's *Degree (Engineering)* *2008-2012*
Employment	*R&D Engineer Shandong Wuzheng Group Co., Ltd.* *2012 .07- 2020.06*
Research and development projects over the last 5 years	*Research focus: Automotive chassis control technology*
Cooperation with industries over the last 5 years	Autonomous Street Sweeper Development Project Apr 2024 - Nov 2025 Qingdao Hengxing Technology Equipment Co., Ltd. *Unmanned Automatic Sweeper Development Project April 2024 - November 2025 Qingdao Hengxing Science and Technology Equipment Co., Ltd.*
Patents and proprietary rights	*Invention Patent: A Fastening Tool for Bolt-Nut Assembly* *ZL202111187995.3 2023*

Important publications over the last 5 years	*[1]* Xu, Y., Fan, Y., Liu, Z., et al. (2025). Research on Braking Force Coordination Strategy for New Energy Commercial Vehicle. *[J]. Automobile Applied Technology*, *50*(6), 34-40+59. *[2]* Xu, Y., Fan, Y., Pan, Y., et al. (2023).Research on Braking Energy Recovery Control Strategy Based on Multi-Objective Optimization for Hybrid Urban Logistics Vehicles.*[J]. Chinese Journal of Automotive Engineering*, *13*(4), 528-538. *[3]* Pan, Y., Xu, Y., & Fan, Z. (2022). Flexible multi-body dynamics analysis of double involute gear. *Journal of Mechanical & Electrical Engineering*, *39*(8), 1088-1095. *[4] Xu Yanyan, Fan Yu, Liu Zhuo, et al. Research on the Coordination Strategy of Braking Force for New Energy Commercial Vehicles [J]. Automobile Applied* *Technology, 2025, 50(06): 34-40 + 59.* *[5] Xu Yanyan, Fan Yu, Pan Yi, et al. Research on the Control Strategy of Brake* *Energy Regeneration for Hybrid Electric Urban Logistics Vehicles Based on Multi- objective Optimization [J]. Chinese Journal of Automotive Engineering, 2023,* *13(04): 528-538.* *[6] Pan Yi, Xu Yanyan, Fan Zhimin. Flexible Multi-body Dynamics Analysis of* *Double Involute Gears [J]. Journal of Mechanical & Electrical Engineering, 2022,*

	39(08): 1088-1095.
Activities in specialist bodies over the last 5 years	*None*

Yu Kai

Name	*Yu Kai*
Post	*Automotive Service Engineering*、*Associate Professor*
Academic career	*Bachelor's Degree*（Engineering） *Shandong University of Technology* *2007-2011* Master's Degree（Engineering） Xi'an Jiaotong University *2011-2014* *Initial academic appointment* *Hengxing University* *2023*
Employment	*Position* *Employer* *Period* Certified Engineer *Qingdao Guobiao Environmental Protection Co.,Ltd* *2014-2020* Certified Engineer Qingdao Huayi Environmental Technology Co., Ltd. *2021-2023* Full-time Faculty Member *Hengxing University* *2023 Now*
Research and development projects over the last 5 years	nnovative Blended Teaching in Higher Education: Future of Online-Offline Instruction 2024.07 - 2025.03
Cooperation with industries over the last 5 years	*Project title* Big Data-based Optimization Service Project for Auto Insurance Brokerage Management System *Partners* Qingdao Hengxing Motor Vehicle Trading & Management Co., Ltd.
Patents and proprietary rights	*Title Year* Novel Soil Remediation Device *2022* Electroplating Wastewater Treatment Equipment *2022* Oil Spill Treatment Device for Marine Ecological Protection *2024*

Important publications over the last 5 years	*Selected recent publications from a total of approx.: 2* 1. Author: Yu Kai Title: Conducting Carbon Emission Environmental Impact Assessments to Support the Steady Development of National Carbon Market Journal: *Regional Governance* Date: 30 July 2021 Issue: No. 361 Pages: 5-6 2.2. Author: Yu Kai Title:*Qualitative Study on the Application of Biological Bacterial Enzyme in Landfill Leachate Treatment Engineering* Journal: *Leather Manufacture and Environmental Technology* Date: 2022 Issue: No. 10 Pages: 119-122

Activities in specialist bodies over the last 5 years	*None*

Wei Guangyuan

Name	*Wei Guangyuan*
Post	*Automotive Service Engineering/Lecturer*
Academic career	First Academic Appointment *Master's Degree*（Mechanical Engineering） *Bachelor's Degree*（Mechanical Engineering） *Hengxing University* *2016* *Dalian University of Technology* *2012* *Shandong Agricultural University* *2010*
Employment	Technical Engineer Shantui Construction Machinery Co., Ltd. *2012 - 2015* Lecturer *Hengxing University* *2016-Now*
Research and development projects over the last 5 years	Project Title: V2 Charging Pile Battery Preprocessing Technology Upgrade Duration: 2022-2023 Collaborator: Tgood Electric Co., Ltd. Funding: ¥100,000 (USD ≈14,500)
Cooperation with industries over the last 5 years	*None*
Patents and proprietary rights	*None*

Important publications over the last 5 years	*1.* Yang Zhiyong, Li Jingfu, Liu Xiang, Wang Tao, Wei Guangyuan. (2019). *Automotive Chassis Electronic Control System Maintenance*. *[M].* Beijing: Posts & Telecom Press. ISBN 978-7-115-48409-3 *2.* Feng Yizeng, Wei Guangyuan. (2019). *Automotive Engine Maintenance*. *[M].*Beijing: Beijing Institute of Technology Press. ISBN 978-7-568-26576-8 *3.* Wei Guangyuan. (2023). Teaching Reform of "Vehicle Engineering" Based on "Internet + Curriculum Ideology". *[J]. Examination Weekly*, No.10 2023: 60-61. *4.* Wei Guangyuan. (2023). Vehicle Engineering Program Development Under "New Engineering" Initiative. *[J]. Education and Teaching Research Results*, No.5 2023: 112-113. *5.* Wei Guangyuan, Xiu Xia, Liu Hongyan, et al. (2024). Intelligent Automotive Design and Innovative Technology Applications. *[J]. Auto Maintenance Technician*, No.11 2024: 108-109.
Activities in specialist bodies over the last 5 years	Shandong Society of Automotive Engineers Committee Member *2022-Now*

Xia Fuzhi

Name	*Xia Fuzhi*
Post	*Automotive Service Engineering/Lecturer*
Academic career	*Bachelor's Degree* *2002.9-2006.7* (Automotive Command & Control) PLA Automotive Management Academy
Employment	*Lecturer Hengxing University 2020.3-Now*
Research and development projects over the last 5 years	*None*
Cooperation with industries over the last 5 years	Project Title: Feasibility Analysis for Electric Vehicle Charging Station Construction 2023.08-2024.08
Patents and proprietary rights	LED strip bracket installation tool *ZL 2024 2 0482013.6* 2024.03.13 *ZL 2024 2 0387423.2* 2024.02.29 Metal spring plate installation tool *ZL 2024 2 1198259.7* 2025.01.14 *ZL 2024 2 1126278.9* 2024.05.22 Drilling device for automotive parts processing *ZL 2024 2 1074884.0* 2024.05.17 Automotive power sunshade curtain Retractable vehicle door handle
Important publications over the last 5 years	*None*
Activities in specialist bodies over the last 5 years	Shandong Society of Automotive Engineers Committee Member *2024.5-Now*

Ge Jiali

Name	*Ge JialiJiali Ge.*		
Post	*Automotive Service Engineering/Lecturer*		
Academic career	*Teaching Assistant* *Lecturer* *Master's Degree* （Traffic Information Engineering and Control） *Bachelor's Degree* （Communication Engineering）	*Hengxing University* *Hengxing University* Shandong University of Science and Technology Shandong Jianzhu University	*2022* *2024* *2017* *2020*
Employment	Full-time Faculty Member Full-time Faculty Member	Shandong Vocational College of Cultural Industries *Hengxing University*	*2020.8-2022.7* *2022.8—Now*
Research and development projects over the last 5 years	*1.* deological Demonstration Course *Engineering Drawing,* 2022.10, Hengxing University *2.* Teaching Reform Project *Vehicle Engineering Graduation Design Reform Integrating Disciplinary Competitions under New Engineering Initiative* (No.HXJY2024J055), 2024.09, Hengxing University		
Cooperation with industries over the last 5 years	*None*		
Patents and proprietary rights	*None*		
Important publications over the last 5 years	*Selected recent publications from a total of approx.：1* Ge Jiali, Lü Wenhong, Fu Shouyan. (2020). *Highway Road Side Unit Deployment Based on Vehicle Clusters*.[J]. *Science Technology and Engineering*, 20(22), 9222-9228.		

Activities in specialist bodies over the last 5 years	*None*

Qin Jingjing

Name	*Qin Jingjing*		
Post	*Teaching area and designation Automotive Service Engineering/Lecturer*		
Academic career	*Bachelor's Degree*（Thermal Energy Engineering） *Master's Degree*（Thermal Energy Engineering）	*Qingdao University* *Qingdao University*	*2007—2011* *2011—2014*
Employment	*Position*	*Employer*	*Period*
	Refrigeration Engineer	Hisense Air Conditioning R&D Center	*2014-2021*
	Lecturer	*Hengxing University*	*2021 Now*
Research and development projects over the last 5 years	*None*		
Cooperation with industries over the last 5 years	*None*		
Patents and proprietary rights	*None*		
Important publications over the last 5 years	*Selected recent publications from a total of approx.：1* *Author(s)*：Qin Jingjing, Xiu Xia, Qiu Yu, Zhuang Xinying *Title*：*Lightweight Structure Design of a New Energy Truck* *Publisher, place of publication, date of publication or name of periodical,* *volume, issue, page numbers : Automobile Applied Technology*, 49(10):66-71.		

Activities in specialist bodies over the last 5 years	*None*

Wang Feng

Name	*Wang Feng*
Post	*Automotive Service Engineering/Lecturer*
Academic career	Master of Education (Curriculum and Instruction Theory) *Ningxia University 2021* Bachelor's Degree（*Automotive Service Engineering*） *Hengxing University 2018*
Employment	Full-time Faculty *Hengxing University 2021.08-Now*
Research and development projects over the last 5 years	Shandong Provincial Ideological Education Research Project 2024.01-2025.01 *Automotive Service Enterprise Management* University-Level Ideological Demonstration Course 2024 *Automotive Service Enterprise Management* University-Level Examination Reform 2023 *Automotive Service Enterprise Management* University-Level Hybrid First-Class Course 2023
Cooperation with industries over the last 5 years	R&D of Intelligent Connected Vehicle Industry-Education Integration Autonomous Driving Virtual Training Platform *Shandong Zhiyin Future Technology Innovation Co., Ltd.*
Patents and proprietary rights	*None*
Important publications over the last 5 years	*None*

Activities in specialist bodies over the last 5 years	Shandong Society of Automotive Engineers SAE Member *2023.05-Now*

Zhao Yiming

Name	*Zhao Yiming*		
Post 职	*Teaching area and designation Automotive Service Engineering/Professor*		
Academic career	*Initial academic appointment Bachelor's Degree*（Physics） *Master's Degree*（Software Engineering）	*China University of Petroleum* Shengli College *Northeast Petroleum University* *Dalian University of Technology*	*2003* *1979.9-1983.7* *2006.9-2008.12*
Employment	*Professor* *Professor*	*China University of Petroleum* *Hengxing University*	*2003-2021* *2021-2025*
Research and development projects over the last 5 years	*None*		
Cooperation with industries over the last 5 years	*None*		
Patents and proprietary rights	10kV Feeder Secondary Circuit Simulation Device Mechanical Transmission Integrated Demonstration SystemElectric Mechanical Transmission Teaching Demonstrator 36V-based Portable Relay Protection & Secondary Circuit Simulator	*ZL201020555029.3* *ZL201320836654.9* *ZL201320836654.9* *ZL 2016 2 1167907.8*	
Important publications over the last 5 years	*None*		

Activities in specialist bodies over the last 5 years	*None*

Guo Haibing

Name	*Guo Haibing*
Post	*Automotive Service Engineering/Lecturer*
Academic career	*Bachelor's Degree（Study） None* *Master's Degree（*Transportation Engineering*）* *Qingdao University of Technology 2022*
Employment	*Teaching Assistant Hengxing UniversityHengxing University 2022.08-2024.07* *Lecturer 2024.08-Now*
Research and development projects over the last 5 years	*None*
Cooperation with industries over the last 5 years	*None*
Patents and proprietary rights	*None*
Important publications over the last 5 years	*Selected recent publications from a total of approx：2* *1.* Guo, H., et al. (2020).Vehicle Lane Changing Interaction Behavior and Decision Model Based on Utility Theory. [J]. *Science Technology and Engineering*, 20(29), 12185-12190. *2.* Guo, H., et al. (2021). Study on traffic characteristics of expressway confluence area based on Full Velocity Difference Model. [J]. *Journal of Qingdao University of Technology*, 42(4), 100-107+7.
Activities in specialist bodies over the last 5 years	*Shandong Jiaotong University School of Mechanical&Automotive Engineering Vice Dean 2024.11-2025.10*

Liu Jun

Name	*Liu Jun*
Post	*Automotive Service Engineering/Professor*
Academic career	*Doctoral Degree(*Automation) Shanghai Jiao Tong University *1995.9-1999.6*
Employment	*Lecturer* *Qingdao University of Science and Technology* *1999-2020* Lead Professor *Hengxing University* *2020-Now*
Research and development projects over the last 5 years	*None*
Cooperation with industries over the last 5 years	*None*
Patents and proprietary rights	*None*
Important publications over the last 5 years	*None*
Activities in specialist bodies over the last 5 years	Shandong Provincial Government Procurement Review Expert Qingdao Municipal Government Procurement Review Expert Elevator Committee of Qingdao Special Equipment Association Special Expert

Wang Hongxia

Name	*Wang Hongxia*
Post	*Automotive Service Engineering/Lecturer*
Academic career	*Postgraduate Student Xi'an Shiyou University 2006*
Employment	*Lecturer Qingdao City College 2006.8-2013.8* *Lecturer Hengxing University 2020.10-Now*
Research and development projects over the last 5 years	*None*
Cooperation with industries over the last 5 years	*None*
Patents and proprietary rights	*None*
Important publications over the last 5 years	Wang Hongxia. (2024). Teaching methodology of mechanics in mechanical principles courses for application-oriented universities. *Knowledge Window*, (10).
Activities in specialist bodies over the last 5 years	*None*

Gao Lixuan

Name	*Gao Lixuan*		
Post	*Automotive Service Engineering/Teaching Assistant*		
Academic career	*Bachelor's Degree(Engineering Mechanics)* *Master's Degree（Mechanical Engineering）*	North University of China The University of New South Wales (Australia)	*2015* *2019*
Employment	Vehicle Dynamics Engineer Multibody Dynamics Engineer Aircraft Design Engineer Mechanical Design Engineer Full-time Faculty	Qingdao Double Star Tire Industrial Co., Ltd. Lovol Heavy Industry Co., Ltd. Qingdao Junying Equipment Technology Co., Ltd. Guiyang Tairun Aviation Technology Co., Ltd. *Hengxing University*	*2020.8—2022.8* *2023.2 —2023.3* *2023.4—2023.6* *2023.7—2023.10* *2024.11—Now*
Research and development projects over the last 5 years	Project Title: Vehicle-Tire Dynamics Performance Matching Research Duration: Apr 2020 - Apr 2021 Collaborator: Jilin University Funding: ¥3M (USD ≈430K)		
Cooperation with industries over the last 5 years	*None*		
Patents and proprietary rights	*None*		
Important publications over the last 5 years	*None*		

Activities in specialist bodies over the last 5 years	*None*

Lian Zhiyang

Name	*Lian Zhiyang*		
Post	*Teaching area and designation Automotive Service Engineering/Lecturer*		
Academic career	Bachelor's Degree (Naval Artillery Engineering) Master's Degree (Military Command Science)	Naval University of Engineering Naval Command College	*1985* *1999*
Employment	*Position*	*Employer*	*Period*
	Engineer/Workshop Director/Deputy Director	Weihai Naval Garrison	*1990-1998* *2000-2008*
	Department Head & Engineer	North Sea Fleet Command	*2008-2017* *2017-2022*
	General Manager & Engineer	Foreign Trade Machinery Kaichuang Industrial Park	*2022-Now*
	Shandong University(Qingdao Campus)	*Lecturer*	
	Hengxing University	*Lecturer*	
Research and development projects over the last 5 years	Project Title: AI Customer Service System for Driving Schools Duration: 2024-2025		
Cooperation with industries over the last 5 years	*None*		
Patents and proprietary rights	*None*		
Important publications over the last 5 years	*None*		

Activities in specialist bodies over the last 5 years	*None*

Zhang Baiqi

Name	*Zhang Baiqi*
Post	*Automotive Service Engineering/Teaching Assistant*
Academic career	*Master's Degree* （Industrial Design Engineering） *Qilu University of Technology* *2018.9-2021.12* *Bachelor's Degree* （Industrial Design） *Qilu University of Technology* *2012.9-2016.7*
Employment	*lecturer Hengxing University 2022.8-Now*
Research and development projects over the last 5 years	*None*
Cooperation with industries over the last 5 years	*None*
Patents and proprietary rights	Container for viscous liquids *ZL 2019 0980585.0* *1* *2024* Drainage assembly, modular washbasin and drainage method *ZL 2020 0255429.0* *1* *2025*
Important publications over the last 5 years	*None*
Activities in specialist bodies over the last 5 years	*None*

Liu Tao

Name	*Liu Tao*
Post	*Teaching area and designation Automotive Service Engineering/* Engineer
Academic career	*Master's Degree* （Transportation Engineering） *Qingdao University of Technology* 2012-2015
Employment	Fluid Simulation Manager Guojin Auto *Qingdao 2022-2024* Lecturer *Hengxing University of Science and Technology 2024-Now*
Research and development projects over the last 5 years	*None*
Cooperation with industries over the last 5 years	*None*
Patents and proprietary rights	Refrigerant Pipe Resonance Prevention Method *2020*
Important publications over the last 5 years	*None*
Activities in specialist bodies over the last 5 years	*None*

Wang Fang

Name	*Wang Fang*		
Post	*Teaching area and designation Automotive Service Engineering/Lecturer*		
Academic career	*Master's Degree* （Plastics Engineering）	*Shandong University*	*2005*
	Bachelor's Degree （Engineering）	Shandong University of Technology	*1999*
Employment	*Position Employer*		*Period*
	Lecturer *Hengxing University*		*2020.11- Now*
Research and development projects over the last 5 years	*None*		
Cooperation with industries over the last 5 years	*None*		
Patents and proprietary rights	*None*		
Important publications over the last 5 years	*Selected recent publications from a total of approx. 1* *Wang Fang*： Aftertreatment technologies for reducing diesel particulate matter and nitrogen oxide emissions. *Southern Agricultural Machinery,*		
Activities in specialist bodies over the last 5 years	*None*		

Liu Hong

Name	*Liu Hong*
Post	*Teaching area and designation : Automotive Service Engineering/*Professor-level Senior Engineer
Academic career	*Bachelor's Degree Jilin University of Technology 1984-1988*
Employment	*Position:* Lecturer *Employer:* *Hengxing University* *Period:* *2021-Now*
Research and development projects over the last 5 years	*None*
Cooperation with industries over the last 5 years	*None*
Patents and proprietary rights	*None*
Important publications over the last 5 years	*None*
Activities in specialist bodies over the last 5 years	*None*

Zhang Yanjun

Name	*Zhang Yanjun*		
Post	*Teaching area and designation : Automotive Service Engineering/Professor*		
Academic career	*Bachelor's Degree* （Control Science and Engineering） *Master's Degree* （Control Science and Engineering）	*Jilin Institute of Chemical Technology* *Chongqing University*	*1985-1988* *1979-1983*
Employment	*Professor* *Professor*	*Qingdao University of Science and Technology* *Hengxing University*	Before 2021.02 2021.02-Now
Research and development projects over the last 5 years	*None*		
Cooperation with industries over the last 5 years	*None*		
Patents and proprietary rights	*None*		
Important publications over the last 5 years	*None*		
Activities in specialist bodies over the last 5 years	*None*		

Ding Wenyong

Name	*Ding Wenyong*		
Post	*Automotive Service Engineering/Lecturer*		
Academic career	*Bachelor's Degree* *Master's Degree*	*Northwestern Polytechnical University* *Northwestern Polytechnical University*	*1994.9-1998.7* *2003.9-2006.6*
Employment	*Lecturer* Technical Consultant Lecturer	*Naval Aeronautical University(Qingdao Campus)* Qingdao Eaglewing Information Technology Co., Ltd.*Hengxing University*	*1998.7-2018* *2020.6-2024.11* *2024.11-Now*
Research and development projects over the last 5 years	*None*		
Cooperation with industries over the last 5 years	*None*		
Patents and proprietary rights	*None*		
Important publications over the last 5 years	*None*		
Activities in specialist bodies over the last 5 years	*None*		

Meng Lingju

Name	*Lingju Meng*
Post	*Automotive Service Engineering/ Teaching Assistant*
Academic career	*Bachelor degree(Automobile Service Engineering)* *dezhou university 2016-2020*
Employment	*Teaching assistant Qingdao Hengxing University of Science and Technology* *2023.-2025.4*
Research and development projects over the last 5 years	*None*
Cooperation with industries over the last 5 years	*None*
Patents and proprietary rights	*None*
Important publications over the last 5 years	*None*
Activities in specialist bodies over the last 5 years	*None*

Zhang Chenxu

Name	*Zhang Chenxu*
Post	*Teaching area and designation Automotive Service Engineering/Teaching Assistant*
Academic career	*Bachelor's Degree（Vehicle Engineering）* *Shandong Huayu University of Technology* *2018.9-2022.6* *Master's Degree（Mechanical Engineering）* *Shandong Agricultural University* *2022.9-2024.6*
Employment	Full-time Faculty Member *Hengxing University 2024.10-Now*
Research and development projects over the last 5 years	*None*
Cooperation with industries over the last 5 years	*None*
Patents and proprietary rights	*None*
Important publications over the last 5 years	*None*
Activities in specialist bodies over the last 5 years	*None*