

浙大城市学院滨创中心·交通中心

SAE INTERNATIONAL

SAE 2023

低空飞行器与城市智慧立体交通

INTELLIGENT URBAN AIR MOBILITY SYMPOSIUM

国际学术会议

2023 年 10 月 20~21 日 中国 杭州

October 20~21 Hangzhou, China



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SAE 2023 低空飞行器与城市智慧立体交通 INTELLIGENT URBAN AIR MOBILITY SYMPOSIUM 国际学术会议

2023 年 10 月 20~21 日 中国 杭州
October 20~21 Hangzhou, China

主 办 单 位
HOSTS



滨创中心·交通中心



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10 月 20 日 October 20	
SAE 2023 低空飞行器与城市智慧立体交通国际学术会议 Intelligent Urban Air Mobility Symposium	
9:00~9:30 开幕式 Opening Ceremony	
9:30~12:00 主旨演讲 Keynote Speech	
12:00~13:30 午餐 Lunch	
13:30~17:40 主旨演讲 Keynote Speech	
10 月 21 日 October 21	
路径规划与安全飞控 智能决策与多机协同 Path Planning and Secure Flight Control Technology Intelligent Decision-Making and Multi-aircraft Collaboration	动力驱动与电池 先进构型与噪声振动控制 Power-driven and Battery Advanced Structure, Noise and Vibration Control
9:00~10:15 技术演讲 Technical Speech	9:00~10:40 技术演讲 Technical Speech
智能汽车与城市智慧立体交通 智能座舱与人机交互 Intelligent Vehicles and Urban 3D Transportation Intelligent Cockpit and HMI	多元感知与融合 低空域高可靠通信 Sensing and Fusion High-reliability, Low-altitude Communication
10:15~11:30 技术演讲 Technical Speech	10:40~11:30 技术演讲 Technical Speech
11:30~13:00 午餐 Lunch	
13:00~16:45 论文宣讲 Paper Presentation	
16:45 优秀论文颁奖 Award for Outstanding Papers	

HOSTS INTRODUCTION



滨创中心·交通中心

Hangzhou City College (HZCU), founded in 1999, is located in Hangzhou. The school is committed to cultivating socially responsible and innovative talents, with more than 11,500 full-time undergraduates and more than 290 graduate students jointly trained with Zhejiang University and other institutions; it has a strong team of faculty and staff, of which about 50% hold senior titles, including 33 high-level talents, such as academicians and national-level professionals.

HZCU innovates talent cultivation mechanism and supports students' development in various aspects; the school has a perfect research platform with more than 30 research institutes, and important research centers including Intelligent Transportation System Research Center and Binjiang Innovation Center, as well as two provincial key laboratories, four provincial engineering research centers, and so on. HZCU adheres to the road of open school running, actively promotes international education, deeply participates in social services, and cooperates with the government and industry to establish industrial colleges and advanced research and development platforms, contributing to regional economic and social development.



SAE International is a global association committed to advancing mobility knowledge and solutions for the benefit of humanity. By engaging nearly 200,000 engineers, technical experts and volunteers, we connect and educate mobility professionals to enable safe, clean, and accessible mobility solutions. We act on two priorities: encouraging a lifetime of learning for mobility engineering professionals and setting the standards for industry engineering. We strive for a better world through the work of our philanthropic SAE Foundation, including award-winning programs like A World In Motion® and the Collegiate Design Series™.

SAE International, as one of the world's largest standard development organizations in the mobility industries, we provide society and the global mobility engineering community with:

- Neutral forums that convene to address society's mobility needs
- The most reliable and comprehensive collection of engineering resources that advance mobility
- STEM education and professional development programs that inspire and build mobility's current and future workforce
- Consensus-based standards that advance quality, safety and innovation
- A global community whose collective wisdom makes mobility safe, clean and accessible

主办单位介绍



滨创中心·交通中心

浙大城市学院（HZCU），创建于1999年，位于杭州。学校秉持立德树人理念，致力于培养具有社会责任感和创新精神的人才，现有超过11,500名全日制本科生和与浙江大学等机构联合培养的290多名研究生；拥有一支强大的教职员工团队，其中约50%担任高级职称，包括33名高级人才，如院士和国家级专业人才。

浙大城市学院创新人才培养机制，支持学生多方面的发展；学校科研平台完善，设有30多个研究机构，重要研究中心包括智慧交通运输工程研究中心、滨江创新中心，还拥有两个省级重点实验室、四个省级工程研究中心等。浙大城市学院坚持走开放办学之路，积极推进国际化教育，深度参与社会服务，与政府和产业界合作，建立了产业学院和高级研发平台，为地区经济和社会发展做出贡献。



SAE International 是一家全球性的学会组织，致力于推动造福人类的航空航天、汽车、商用车及工程农用机械行业知识与解决方案的发展。为了实现安全、清洁、便捷的交通运输解决方案，SAE 在全球建立了拥有20万名工程师、技术专家及志愿者的网络平台，并不断培养行业专业人才。我们工作的两大优先事项是：激励航空航天、汽车、商用车及工程农用机械行业工程专业人才的终身学习，并为行业工程设定标准。我们通过慈善机构 SAE 基金会的工作努力创造一个更美好的世界，包括 A World in Motion（运动中的世界）和 Collegiate Design Series（大学生设计系列）等项目。

SAE International，作为目前全球最大的航空航天、汽车、商用车及工程农用机械行业的标准制定组织之一，始终致力于：

- 搭建中立平台，促进解决社会的出行需求
- 提供全球最可靠、最全面的工程资源，促进行业发展
- 通过 STEM 教育与职业发展项目，激发与培养行业现有与未来劳动力
- 通过共识的标准，提高产品质量、安全性和创新性
- 搭建全球性的社区，通过集体智慧让出行更安全、更清洁、更便捷

ORGANIZING COMMITTEE

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Hubert Jäger Technische Universität Dresden, Germany
TIAN Daxin Beihang University
WANG Weida Beijing Institute of Technology
YIN Rui Hangzhou City University
ZHANG Bangji Hangzhou City University Binjiang Innovation Center
ZHANG Yangjun Tsinghua University

SECRETARY-GENERAL

ZHANG Zheshuo Hangzhou City University Binjiang Innovation Center

SESSION CHAIRS

Power-driven and Battery Technology

MA Xin Science and Technology Innovation Research Institute of Civil Aviation University of China
ZHANG Xinfeng Hangzhou City University Binjiang Innovation Center
SHENG Hanlin Nanjing University of Aeronautics and Astronautics

Sensing and Fusion Technology

TIAN Daxin Beihang University
HUANG Libo Hangzhou City University Binjiang Innovation Center
FAN Lili Beijing Institute of Technology

Path Planning and Secure Flight Control Technology

DU Haiping University of Wollongong, Australia
WANG Fang Hangzhou City University Binjiang Innovation Center
ZHANG Jie Changsha University of Science & Technology

Decision-making and Multi-agent Collaboration Technology

LI Guofa Chongqing University
HU Wen Tsinghua University
MENG Zonglin California State University, Los Angeles

Intelligent Cockpit and HMI Technology

GUO Hongyan Jilin University
YANG Liping Hangzhou City University Binjiang Innovation Center

Advanced Structure, Noise, and Vibration Control Technology

Ning Donghong Ocean University of China
TAN Bohuan Xiangtan University

High-reliability, Low-altitude Communication Technology

CHEN Hongming Zhejiang Ocean University
LIU Shengli Hangzhou City University Binjiang Innovation Center

Intelligent Vehicles and Urban 3D Transportation Technology

ZHANG Jian Southeast University
CHANG Xin Civil Aviation University of China

会议组委会

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张杨军 清华大学

秘书长

张哲硕 浙大城市学院滨创中心

分会：动力驱动与电池技术

马昕 中国民航大学科技创新研究院
张新丰 浙大城市学院滨创中心
盛汉霖 南京航空航天大学

分会：多元感知与融合技术

田大新 北京航空航天大学
黄李波 浙大城市学院滨创中心
范丽丽 北京理工大学

分会：路径规划与安全飞控技术

DU Haiping 澳大利亚伍伦贡大学
王芳 浙大城市学院滨创中心
章杰 长沙理工大学

分会：智能决策与多机协同技术

李国法 重庆大学
胡文 清华大学
孟宗霖 加州大学洛杉矶分校

分会：智能座舱与人机交互技术

郭洪艳 吉林大学
杨丽平 浙大城市学院滨创中心

分会：先进构型与噪声振动控制技术

宁东红 中国海洋大学
谭博欢 湘潭大学

分会：低空域高可靠通信技术

陈宏铭 浙江海洋大学
刘胜利 浙大城市学院滨创中心

分会：智能汽车与城市智慧立体交通技术

张健 东南大学
常鑫 中国民航大学

TECHNICAL PROGRAM

OCTOBER 20

MAIN VENUE	SAE 2023 INTELLIGENT URBAN AIR MOBILITY SYMPOSIUM
9:00	Opening Ceremony Moderator: BAI Jie Professor of Hangzhou City University; Foreign Academician of the Russian Academy of Engineering
	Keynote Speech Moderator: ZHANG Bangji Qiantang Distinguished Professor, Hangzhou City University Binjiang Innovation Center
9:30	Urban Aerial Mobility: Network Structure, Transportation Benefits, and Sino-US Comparison QU Xiaobo Changjiang Chair Professor, Tsinghua University; Fellow of European Academy of Sciences
9:55	Ultra-High Power Battery Technology and Applications RUAN Dianbo Dean, Faculty of Mechanical Engineering & Mechanics at Ningbo University; Foreign Academician of the Russian Academy of Engineering
10:20	Research Progress of the Split Type Flying Vehicle Technology WANG Weida Vice Dean & Professor, School of Mechanical Engineering, Beijing Institute of Technology
10:45	Electrically Interconnected Suspension and Related Technologies DU Haiping Senior Professor, University of Wollongong

会议日程

10月20日

主会场	SAE 2023 低空飞行器与城市智慧立体交通国际学术会议
9:00	开幕式 主持人: 白傑 院士 浙大城市学院 教授、俄罗斯工程院外籍院士
	主旨演讲 主持人: 张邦基 浙大城市学院滨创中心 “钱塘学者” 特聘教授
9:30	低空立体交通系统: 网络结构、收益及中美比较 曲小波 院士 清华大学 长江学者讲席教授、欧洲科学院院士
9:55	超高功率电池技术及应用 阮殿波 院士 宁波大学 机械工程与力学学院院长; 俄罗斯工程院外籍院士
10:20	分体式飞行汽车技术研究进展 王伟达 北京理工大学 机械与车辆学院 副院长、教授
10:45	电气互联悬架及其相关技术 DU Haiping 澳大利亚伍伦贡大学 高级教授

TECHNICAL PROGRAM

OCTOBER 20

11:10	Exploration and Practice of Urban Low-Altitude UAV Operation Service System CHE Haixiang Head of Hangzhou UAV Operation Service Center; General Manager, Zhejiang Ufly Technology Co., Ltd
11:35	Lightweight Solutions for the Mobility of the Future Hubert Jäger Chief Scientist, Binjiang Innovation Center of Hangzhou City University
12:00	Lunch
	Keynote Speech Moderator: ZHANG Zheshuo Distinguished Researcher, Hangzhou City University
13:30	Un-crewed UAM ConOps PENG Xiang Senior Regulatory Affairs Engineer, Global Safety and Regulatory Affairs North Asia, The Boeing Company
13:55	eVTOL to Change the World Kellen XIE Senior Vice President, AutoFlight
14:20	Research and Practice of Intelligent Key Technologies of Unmanned eVTOL for Advanced Air Traffic XIE Anhuan Deputy Director of Intelligent Robot Research Center, Zhijiang Lab

会议日程

10月20日

11:10	城市低空无人机运行服务体系探索与实践 车海翔 杭州低空无人机运行服务中心 负责人、浙江这里飞科技有限公司 总经理
11:35	面向未来出行的轻量化解决方案 Hubert Jäger 浙大城市学院滨江创新中心 首席科学家
12:00	午餐
	主旨演讲 主持人：张哲硕 浙大城市学院 特聘研究员
13:30	无人驾驶城市空中交通运行理念 彭翔 波音 全球安全与法规事务北亚区域高级法规事务工程师
13:55	电动垂起 改变世界 谢嘉 上海峰飞 高级副总裁
14:20	面向先进空中交通的无人驾驶eVTOL智能化关键技术研究与实践 谢安桓 之江实验室 智能机器人研究中心副主任

TECHNICAL PROGRAM

OCTOBER 20

14:45	eVTOL-Technology, Development & Production KANG Yuanli Senior Technical Fellow; Deputy Chief of System Engineering, COMAC Beijing Aircraft Technology Research Institute
15:10	Integration of Intelligent Perception and Autonomous Control for Near-ground Vehicles TIAN Daxin Changjiang Scholar Distinguished Professor, Beihang University
15:35	Global Overview of AI/ML and Autonomy Certification Consideration Johnson WANG Chief Engineering & Ecosystem Dept Leader of Aviage Systems; Member of SAE S-18 Committee
16:00	Acoustical Materials and Noise Control XIA Baizhan Professor of College of Mechanical and Vehicle Engineering, Hunan University
16:25	Urban Air Mobility Promotes High-Quality Development of Low-Altitude Economy LIN Sina Operation Director, Ehang
16:50	Future Flight and Intelligent Driving JIANG Liwei Chief Architect, AEROFUGIA
17:15	Interpretation and Reflection on the Unmanned eVTOL Airworthiness Certification Policy MA Xiaoge Senior Engineer of Aircraft Airworthiness Institute, China Academy of Civil Aviation Science and Technology

会议日程

10月20日

14:45	电动垂直起降飞行器（智能飞行器）设计及产业化发展 康元丽 国家高层次人才；中国商飞北研中心 副总师、多电技术负责人
15:10	面向陆地载具的智能感知与自主控制一体化融合 田大新 北京航空航天大学 长江学者特聘教授
15:35	全球对AI/ML和自动化新技术航空领域应用的适航考虑 王运盛 昂际航电 总工程部门总监；SAE S-18委员会成员
16:00	声学材料与噪声控制 夏百战 湖南大学 机械与运载工程学院 教授
16:25	城市空中交通推动低空经济高质量发展 林思娜 亿航智能设备（广州）有限公司 运营总监
16:50	未来飞行与智慧驾驶 江立为 沃飞长空 总架构师
17:15	无人驾驶eVTOL适航审定政策解读与思考 马小革 中国民航科学技术研究院 航空器适航研究所（无人机适航审定中心）高级工程师

TECHNICAL PROGRAM

OCTOBER 21

PARALLEL VENUE	PATH PLANNING AND SECURE FLIGHT CONTROL TECHNOLOGY INTELLIGENT DECISION-MAKING AND MULTI-AIRCRAFT COLLABORATION	POWER-DRIVEN AND BATTERY ADVANCED STRUCTURE, NOISE AND VIBRATION CONTROL
9:00	Urban Mobility Data Space and Collective Intelligent Decision-making MING Xinguo Professor, Department of Industrial Engineering and Management, School of Mechanical Engineering, Shanghai Jiao Tong University	Electric Powertrain Solutions for High-Safety and High-Performance Flying Cars LIU Yintong Director of Powertrain Integration, XPENG AEROHT
9:25	Swarm of Micro Flying Robots in the Wild GAO Fei Tenured Associate Professor, Zhejiang University	Challenges and Opportunities for High Power Density and Efficient Electric Powertrains for Electric Aviation LIU Dongliang Dean of Electric Aviation Research Institute, Vice Presiden of Wolong Electric Group Co., Ltd.
9:50	Control of UAV Swarms Under Communication and Navigation Constraints CONG Yirui Associate Researcher, National University of Defense Technology	Research and Discussion on Hybrid Composite-wing VTOL PENG Xu Deputy Director and Associate Professor, Civil Aviation Flight University of China
10:15		Development of Low-Altitude Manned Aircraft and Feasibility Study on Hydrogen-Electric Hybrid Power ZHANG Xinfeng Qiantang Distinguished Professor; Director, Department of Intelligent Engineering, Hangzhou City University

会议日程

10月21日

分论坛	路径规划与安全飞控 智能决策与多机协同	动力驱动与电池 先进构型与噪声振动控制
9:00	城市移动出行数据空间和群体智能决策 明新国 上海交通大学 机械与动力工程学院 工业工程与管理系教授	高安全、高性能飞行汽车电动力系统解决方案 刘寅童 小鹏汇天 动力集成总监
9:25	野外微型空中机器人集群 高飞 浙江大学 长聘副教授	电动航空高功率密度高效电动力系统的挑战与机遇 刘栋良 卧龙电气 航空电动研究院院长
9:50	通信与导航约束条件下的无人机集群控制 丛一睿 国防科技大学 副研究员	混合动力复合翼VTOL的研究与探讨 彭旭 中国民用航空飞行学院 副主任、副教授
10:15		低空载人飞行器开发与氢电混合动力可行性探索 张新丰 浙大城市学院 智能工程系主任 “钱塘学者”特聘教授

TECHNICAL PROGRAM

OCTOBER 21

PARALLEL VENUE	INTELLIGENT VEHICLES AND URBAN 3D TRANSPORTATION INTELLIGENT COCKPIT AND HMI	SENSING AND FUSION HIGH-RELIABILITY, LOW-ALTITUDE COMMUNICATION
10:15	Thoughts on the Development of Cabin-Driving Integration WU Chao General Manager, Shanghai Xingyi Intelligent Technology Co., Ltd	
10:40	Research on User Experience and Development Trends of Scenario-Based Cockpit MENG Jian Director of Cabin Technology Department and Senior Engineer of China Automotive Intelligence Connected Technology Co., Ltd.	Urban Smart Stereoscopic Transportation in the Digital Era - Thinking, Research and Practice of Central Control Information YANG Yongyao Chief Scientist, SUPCON
11:05	Human-automation Interaction for Automated Vehicles HU Hongyu Professor, State Key Laboratory of Automotive Simulation and Control, Jilin University	Discussion on Relevant Policies and Technologies for Safety Critical Data Link Based on UAM TANG Xinmin Dean of the School of Transportation Science and Engineering, Civil Aviation University of China
11:30	Lunch	
13:00	Paper Presentation	
16:45	Award for Outstanding Papers	

会议日程

10月21日

分论坛	智能汽车与城市智慧立体交通 智能座舱与人机交互	多元感知与融合 低空域高可靠通信
10:15	舱驾一体化发展的思考 吴超 上海行忆智能 总经理	
10:40	基于情景的智能座舱用户体验及发展趋势研究 孟健 中汽智联技术有限公司 座舱技术室 室主任、高级工程师	数字时代的城市智慧立体交通——中控信息的思考、研发和实践 杨永耀 浙江中控信息产业股份有限公司 首席科学家
11:05	自动化车辆的人机交互 胡宏宇 吉林大学 汽车仿真与控制国家重点实验室教授	UAM安全关键数据链路的相关政策和技术探讨 汤新民 中国民航大学 交通科学与工程学院院长
11:30	午餐	
13:00	论文宣讲	
16:45	优秀论文颁奖	

PAPER PRESENTATION

OCTOBER 21

CONFERENCE ROOM 1 13:00~16:45	CONFERENCE ROOM 2 13:00~16:45	CONFERENCE ROOM 3 13:00~16:45
High-reliability, Low-altitude Communication Technology Advanced Structure, Noise, and Vibration Control Technology	Intelligent Cockpit and HMI Technology Sensing and Fusion Technology Intelligent Vehicles and Urban 3D Transportation Technology Power-driven and Battery Technology	Path Planning and Secure Flight Control Technology Decision-making and Multi-agent Collaboration Technology

Conference Room 1: High-reliability, Low-altitude Communication Technology

Chairs: CHEN Hongming Zhejiang Ocean University, China; LIU Shengli Hangzhou City University Binjiang Innovation Center

23CETP-0120	
13:00	Analysis and Correction of Atmospheric Refraction Effects on MLAT YU Wenkang Civil Aviation University of China
23CETP-0119	
13:15	DQRA-MIMO Protocol Design for Massive M2M Communications in Intelligent Aircraft FANG Chunyan Hangzhou City University

Conference Room 1: Advanced Structure, Noise, and Vibration Control Technology

Chairs: Ning Donghong Ocean University of China; TAN Bohuan Xiangtan University

23CETP-0113	
13:30	Damage Prediction and Crashworthiness Optimization of FOBEVs in Positive Crashes for Battery Electric Vehicles LIU Ke Sichuan University of Science and Engineering
23CETP-0111	
13:45	In-cylinder Flow Characterization of a Hydrogen-Ammonia Fueled Rotary Engine YANG Xu Xiangtan University
23CETP-0112	
14:00	Research on Gear Vibration Evaluation Approach of E-Drive System Based on Order Analysis JING Haihong Dongfeng Motor Corporation
23CETP-0118	
14:15	Development of Novel Impact Magnetorheological Dampers for Flying Car Suspension JIANG Lan University of Science and Technology of China
23CETP-0115	
14:30	Semi-Active Control Strategy of Shimmy of Straddle-Type Monorail Vehicle and Its Effectiveness Analysis ZHOU Junchao Sichuan University of Science and Engineering

论文宣讲

10月21日

会议室1 13:00~16:45	会议室2 13:00~16:45	会议室3 13:00~16:45
低空域高可靠通信技术 先进构型与噪声振动控制技术	智能座舱与人机交互技术 多元感知与融合技术 智能汽车与城市智慧立体交通技术 动力驱动与电池技术	路径规划与安全飞控技术 智能决策与多机协同技术

会议室1: 低空域高可靠通信技术 主席: 陈宏铭 浙江海洋大学、刘胜利 浙大城市学院滨创中心	
23CETP-0120 13:00	多点定位大气折射的影响分析与修正方法 于文康 中国民航大学
23CETP-0119 13:15	智能飞行器中大规模M2M通信的DQRA-MIMO协议 方春燕 浙大城市学院
会议室1: 先进构型与噪声振动控制技术 主席: 宁东红 中国海洋大学、谭博欢 湘潭大学	
23CETP-0113 13:30	电动汽车发生正向碰撞事故时, 其头部结构的损伤预测与耐撞性优化 刘科 四川轻化工大学
23CETP-0111 13:45	氢氨燃料转子发动机缸内流动特性研究 杨旭 湘潭大学
23CETP-0112 14:00	基于阶次分析的电驱动系统齿轮振动评价方法研究 靖海宏 东风汽车集团有限公司技术中心
23CETP-0118 14:15	一种带泄压通道的新型抗冲击磁流变阻尼器的研制 姜澜 中国科学技术大学
23CETP-0115 14:30	跨坐式单轨车辆摆振半主动控制策略及成效分析 周军超 四川轻化工大学

PAPER PRESENTATION

OCTOBER 21

Conference Room 1: Advanced Structure, Noise, and Vibration Control Technology

Chairs: Ning Donghong Ocean University of China; TAN Bohuan Xiangtan University

23CETP-0107	
14:45	Hierarchical Control Strategy for Active Suspension Equipped with an Electromagnetic Actuator LAI Wenjie Hunan University
23CETP-0116	
15:00	Study on the Current Status and Evaluation Methods of Noise Certification for Unmanned Aerial Vehicles (UAVs) QIN Jiaxu China Academy of Civil Aviation Science and Technology (CAST)
23CETP-0109	
15:15	Research on the Vibration Reduction Effect of Variable Damping and Stiffness Electromagnetic Damper ZHAN Haoyu Ocean University of China
23CETP-0137	
15:30	Adaptive Harmonic Extended State Observer Based Anti-Swing Attitude Control of a Quadrotor-Slung-Load System SONG Guangyi Ocean University of China
23CETP-0108	
15:45	Research on Switchable Energy-Regenerative Suspension System XIE Yilong Xiangtan University
23CETP-0110	
16:00	Clutch Control Strategy Under Hybrid Continuously Variable Transmission Vehicle Mode Switching FU Bing Xiangtan University
23CETP-0114	
16:15	Overview of Material Technology for Noise and Vibration Control of Low Altitude Aircraft DU Xiuzheng Ningbo Polytechnic
23CETP-0117	
16:30	Research on Vibration Control and Energy Study of Vehicle Electromagnetic Suspension Based on Sliding Mode Control LIU Pengfei Ocean University of China

论文宣讲

10月21日

会议室1: 先进构型与噪声振动控制技术

主席: 宁东红 中国海洋大学、谭博欢 湘潭大学

23CETP-0107	
14:45	配备电磁作动器的主动悬架分层控制策略 赖杰文 湖南大学
23CETP-0116	
15:00	无人机噪声合格审定现状及评定方法研究 秦嘉徐 中国民航科学技术研究院
23CETP-0109	
15:15	变阻尼变刚度电磁阻尼器减振效果研究 战浩宇 中国海洋大学
23CETP-0137	
15:30	基于自适应扩张谐波观测器的四旋翼无人机——吊挂载荷系统抗摇控制 宋广义 中国海洋大学
23CETP-0108	
15:45	可切换式馈能悬架系统系统的研究 谢治龙 湘潭大学
23CETP-0110	
16:00	混合动力无级变速器驾驶模式切换下的离合器控制策略 傅兵 湘潭大学
23CETP-0114	
16:15	低空飞行器噪声振动控制材料技术概述 杜秀征 宁波职业技术学院
23CETP-0117	
16:30	基于滑模控制的汽车电磁悬架的振动控制和能量研究 刘鹏飞 中国海洋大学

PAPER PRESENTATION

OCTOBER 21

Conference Room 2: Intelligent Cockpit and HMI Technology

Chairs: GUO Hongyan Jilin University; YANG Liping Hangzhou City University Binjiang Innovation Center

23CETP-0104

13:00 **The ICE Model: Evaluating In-Cockpit Child-Centric Interaction Solutions**
XU Jinghan Tongji University

23CETP-0103

13:15 **Analysis of the Game-based Human-Machine Co-steering Control on Low-Adhesion Road Surfaces**
HU Shibo Jilin University

Conference Room 2: Sensing and Fusion Technology

Chairs: Ning Donghong Ocean University of China; TAN Bohuan Xiangtan University

23CETP-0113

13:30 **Aeroengine Gas Path Parameter Trend Prediction Based on LSTM**
CHEN Xiaonan Xiamen University

23CETP-0138

13:45 **GRC-Net: Fusing GAT-based 4D Radar and Camera for 3D Object Detection**
ZENG Changxian Beijing Institute of Technology

Conference Room 2: Intelligent Vehicles and Urban 3D Transportation Technology

Chairs: ZHANG Jian Southeast University, China; CHANG Xin Civil Aviation University of China

23CETP-0122

14:00 **A Dynamic Variable Speed Limit Control Method for Dispersal of Queue Effects in Traffic Accidents**
WANG Bo Southeast University

23CETP-0124

14:15 **Multi-Objective Optimization of Airport Baggage Transport Vehicles' Scheduling Based on Improved Genetic Algorithm**
JIANG Han Southeast University

23CETP-0123

14:30 **Departure Flight Delay Prediction and Visual Analysis Based on Machine Learning**
QIAN Yu Southeast University

23CETP-0133

14:45 **A Basic Simulation Study of Fuel Cell-Battery Hybrid System for eVTOL Aircraft in Steady-State Operation**
QIN Yuan Hangzhou City University

论文宣讲

10月21日

会议室2: 智能座舱与人机交互技术

主席: 郭洪艳 吉林大学、杨丽平 浙大城市学院滨创中心

23CETP-0104
13:00 **ICE模型: 一种针对以儿童为中心的车载交互解决方案的评估模型**
徐静涵 同济大学

23CETP-0103
13:15 **低附着路面下人机博弈协同转向控制**
胡仕博 吉林大学

会议室2: 多元感知与融合技术

主席: 田大新 北京航空航天大学、黄李波 浙大城市学院滨创中心、范丽丽 北京理工大学

23CETP-0125
13:30 **基于LSTM的航空发动机气路参数趋势预测**
陈肖楠 厦门大学

23CETP-0138
13:45 **GRC网络: 用于3D目标检测的基于GAT的4D雷达和相机融合技术**
曾昌贤 北京理工大学

会议室2: 智能汽车与城市智慧立体交通技术

主席: 张健 东南大学、常鑫 中国民航大学

23CETP-0122
14:00 **面向消散交通事故下排队影响的动态可变限速控制方法**
王博 东南大学

23CETP-0124
14:15 **基于改进遗传算法的机场行李运输车辆调度多目标优化**
姜涵 东南大学

23CETP-0123
14:30 **基于机器学习的离港航班延误预测及可视化分析**
钱宇 东南大学

23CETP-0133
14:45 **氢电混合动力eVTOL在稳态工况下的仿真研究**
秦缘 浙大城市学院

PAPER PRESENTATION

OCTOBER 21

Conference Room 2: Power-driven and Battery Technology

Chairs: MA Xin Science and Technology Innovation Research Institute of Civil Aviation University of China; ZHANG Xinfeng Hangzhou City University Binjiang Innovation Center; SHENG Hanlin Nanjing University of Aeronautics and Astronautics

15:00	23CETP-0136 Research on Energy Management of Micro-Gas Turbine Range Extended Electric Vehicle Based on Battery Life Prediction LI Zichong Nanjing University of Science and Technology
15:15	23CETP-0090 Design and Evaluation of Electric Propulsion System for Electric VTOL LI Hongliang Commercial Aircraft Corporation of China Ltd
15:30	23CETP-0094 MPPT Control of Solar Powered UAV Photovoltaic Power Supply Based on Intelligent Sliding Mode WEI Ye Nanjing University of Aeronautics and Astronautics
15:45	23CETP-0089 A Wind Tunnel Investigation on the Aerodynamics of the Propulsion Wing for a Novel eVTOL Vehicle WANG Junjie Hangzhou City University
16:00	23CETP-0093 Modeling and Validation of a 200kW-Class Series Hybrid Power System in Aviation DIAO Bo Xiamen University
16:15	23CETP-0092 The Energy Consumption Characteristics of Electric Vehicles in the Coastal Area Based on the Powertrain ZHAO Zunlong Ocean University of China
16:30	23CETP-0088 Wide-Range High-Confidence Surge Margin Estimation Method for Aircraft Engine CHEN Qian Nanjing University of Aeronautics and Astronautics

论文宣讲

10月21日

会议室2: 动力驱动与电池技术

主席: 马昕 中国民航大学科技创新研究院、张新丰 浙大城市学院滨创中心、盛汉霖 南京航空航天大学

23CETP-0136	
15:00	基于电池寿命预测的微燃机增程式电动汽车能量管理策略研究 李子冲 南京理工大学
23CETP-0090	
15:15	电动垂直起降飞机电推进系统设计与评估 李洪亮 中国商飞北研中心
23CETP-0094	
15:30	基于智能滑模的太阳能无人机光伏供电MPPT控制 伟业 南京航空航天大学
23CETP-0089	
15:45	一种新型eVTOL飞行器推进翼气动特性的风洞研究 王军杰 浙大城市学院
23CETP-0093	
16:00	200kW级航空串联混合动力系统的高精度建模与在线验证 刁博 厦门大学
23CETP-0092	
16:15	基于动力总成的沿海地区电动汽车能耗特性研究 赵遵龙 中国海洋大学
23CETP-0088	
16:30	航空发动机宽范围高置信度喘振裕度估计方法 陈芊 南京航空航天大学

PAPER PRESENTATION

OCTOBER 21

Conference Room 3: Path Planning and Secure Flight Control Technology

Chairs: DU Haiping University of Wollongong, Australia; WANG Fang Hangzhou City University Binjiang Innovation Center; ZHANG Jie Changsha University of Science & Technology

13:00	23CETP-0131 Improved Prandini Conflict Detection Algorithm Based on Trajectory Prediction LI Xinyue Civil Aviation University of China
13:15	23CETP-0130 Safety-Oriented Architecture Design of Flight Control System for eVTOL Based on ARP4761 and STPA MA Ran Boundary.AI
13:30	23CETP-0127 Attitude Stability Control and Visualization Simulation for Vertical Take-off and Landing (VTOL) Fixed-wing Aircraft LI Wei Hangzhou City University
13:45	23CETP-0132 Lane Changing Comfort Trajectory Planning of Intelligent Vehicle Based on Particle Swarm Optimization Improved Bezier Curve SUN Liyou Tongji University
14:00	23CETP-0128 Robust Stabilized Control for Electric Vertical Take-off and Landing (eVTOL) Fixed-wing Aircraft SHI Jiekai Hangzhou City University
14:15	23CETP-0129 EVTOL Flight Control System Safety: An Example of Application using MBSA Romain Adeline AVIAGE SYSTEMS
14:30	23CETP-0126 Adaptive Robust Tracking Control for Underactuated Quadrotor Unmanned Aerial Vehicle with Prescribed Performance YANG Yichen Hunan University
14:45	23CETP-0135 A SOM-Based Trajectory Planning Analysis Method for Intelligent Groups System ZHANG Xue Shanghai Jiao Tong University

论文宣讲

10月21日

会议室3: 路径规划与安全飞控技术

主席: DU Haiping 澳大利亚伍伦贡大学、王芳 浙大城市学院滨创中心、章杰 长沙理工大学

23CETP-0131	
13:00	基于航迹预测的改进Prandini算法 李欣悦 中国民航大学
23CETP-0130	
13:15	基于ARP4761和STPA方法的eVTOL飞控系统安全架构设计 马然 深圳市边界智控科技有限公司
23CETP-0127	
13:30	垂直降落固定翼飞行器姿态稳定控制及其可视化仿真 黎为 浙大城市学院
23CETP-0132	
13:45	基于粒子群改进贝塞尔曲线的智能车换道舒适性轨迹规划 孙立友 同济大学
23CETP-0128	
14:00	电动垂直起降固定翼无人机鲁棒稳定飞行控制 施杰凯 浙大城市学院
23CETP-0129	
14:15	EVTOL飞控系统安全性: 应用MBSA的一个例子 Romain Adeline 昂际航电
23CETP-0126	
14:30	具有预设性能的欠驱动四旋翼无人机的自适应鲁棒跟踪控制 杨一辰 湖南大学
23CETP-0135	
14:45	基于SOM的智能群体系统轨迹规划分析方法 张雪 上海交通大学

PAPER PRESENTATION

OCTOBER 21

Conference Room 3: Decision-making and Multi-agent Collaboration Technology

Chairs: LI Guofa Chongqing University; HU Wen Tsinghua University; MENG Zonglin California State University, Los Angeles

23CETP-0098	
15:00	TD3 Tuned PID Controller for Autonomous Vehicle Platooning WANG Rukang Wuhan University of Technology
23CETP-0097	
15:15	Game Theory-Based Lane Change Decision-Making Considering Vehicle's Social Value Orientation ZHANG Mingshuai Wuhan University of Technology
23CETP-0099	
15:30	Vehicle Trajectory Prediction in Highway Merging Area using Interactive Graph Attention Mechanism WU Xigang Wuhan University of Technology
23CETP-0101	
15:45	Implementation of Predictive Adaptive Cruise Control Strategy Based on ADAS Map QIAN Guoping Beiqi Foton Motor Co Ltd
23CETP-0096	
16:00	Integrated Decision-making and Planning Method for Autonomous Vehicles based on An improved driving risk field LI Penghao Hunan University
23CETP-0095	
16:15	A Local Trajectory Planning Method Based on Asymmetric Driving Aggressiveness Model MA Zhaoxuan Hunan University
23CETP-0100	
16:30	Machine Learning Based Flight State Prediction for Improving UAV Resilience to Uncertainty FEI Yuheng Beihang University

论文宣讲

10月21日

会议室3: 智能决策与多机协同

主席: 李国法 重庆大学、胡文 清华大学、孟宗霖 加州大学洛杉矶分校

23CETP-0098	
15:00	基于TD3-PID的自动驾驶编队控制 王如康 武汉理工大学
23CETP-0097	
15:15	考虑车辆社会价值取向的博弈换道决策 张明帅 武汉理工大学
23CETP-0099	
15:30	基于交互图注意力机制的高速合流区车辆轨迹预测 吴希钢 武汉理工大学
23CETP-0101	
15:45	基于ADAS地图的预见性自适应巡航控制策略的实现 钱国平 北汽福田汽车股份有限公司
23CETP-0096	
16:00	基于改进驾驶风险场的自动驾驶汽车集成决策与规划方法 李鹏昊 湖南大学
23CETP-0095	
16:15	基于非对称驾驶侵略性模型的局部轨迹规划方法 马兆焯 湖南大学
23CETP-0100	
16:30	基于机器学习的飞行状态预测提升飞行器应对不确定性的情况 费煜恒 北京航空航天大学

SAE 2023 低空飞行器与城市智慧立体交通国际学术会议

通过双盲同行评审论文列表

以下论文将由 SAE International 正式出版发行
预计将于 12 月 31 日出版，并于 2024 年 2 月 28 日前收录至 EI 检索
正式出版后可至 SAE Mobilus 数字图书馆查阅：<https://saemobilus.sae.org/>

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2023-01-7071	23CETP-0119	DQRA-MIMO Protocol Design for Massive M2M Communications in Intelligent Aircraft
2023-01-7072	23CETP-0113	Damage Prediction and Crashworthiness Optimization of FOBEVs in Positive Crashes for Battery Electric Vehicles
2023-01-7073	23CETP-0111	In-cylinder Flow Characterization of a Hydrogen-AmmoniaFueled Rotary Engine
2023-01-7074	23CETP-0112	Research on Gear Vibration Evaluation Approach of E-Drive System Based on Order Analysis
2023-01-7075	23CETP-0118	Development of Novel Impact Magnetorheological Dampers for Flying Car Suspension
2023-01-7076	23CETP-0115	Semi-Active Control Strategy of Shimmy of Straddle-Type Monorail Vehicle and Its Effectiveness Analysis
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2023-01-7094	23CETP-0090	Design and Evaluation of Electric Propulsion System for Electric VTOL
2023-01-7095	23CETP-0094	MPPT Control of Solar Powered UAV Photovoltaic Power Supply Based on Intelligent Sliding Mode
2023-01-7096	23CETP-0089	A Wind Tunnel Investigation on the Aerodynamics of the Propulsion Wing for a Novel eVTOL Vehicle
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2023-01-7114	23CETP-0100	Machine Learning Based Flight State Prediction for Improving UAV Resilience to Uncertainty
2023-01-7115	23CETP-0091	Energy and Power System Design and Test Verification for Electric

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