



Newsletter

ZJU-UIUC INSTITUTE | 2025 Autumn - Winter | Volume 31

2025 Convocation Ceremony Welcomes Freshmen to ZJU

Date: September 14, 2025
Article: Wang Chuxi, Jin Xiufang
Photo: Hailian Culture

On the morning of September 14, ZJU 2025 Convocation was held in the Auditorium of International Campus, Zhejiang University. Faculty, students, and parents gathered together, filled with dreams and expectations, to embark on a new chapter.

noted that the International Campus, as a model of global collaboration, is committed to cultivating outstanding engineers. He urged students to challenge themselves, embrace cross-cultural learning, and dedicate their talents to building a sustainable future.

Attendees included John Coleman, Vice Chancellor for Academic Affairs and Provost at UIUC; He Lianzhen, Vice Chair of Zhejiang University Development Committee, Co-Chair of ZJU Joint Management Committee; Li Min, Chief of International Campus; Wu Yingcai, Executive Vice Dean of the International Campus; Qu Haidong, Vice Dean of International Campus; Chen Liang, Vice Dean of International Campus; Chen Xiqun, Vice Dean of the College of Civil Engineering and Architecture; Wang Wei, Vice Dean of the School of Information Science & Electronic Engineering, as well as heads in the relevant departments of the campus. From UIUC, Philippe Geubelle, Executive Associate Dean of the Grainger College of Engineering, and Jonathan Makela, Associate Dean attended. Lee Der-Hong, Dean of ZJU, Jin Jianming, Executive Dean, and Vice Deans Wang Hongwei and Ong Wee-Liat attended. Faculty representatives and parents of new students were also present.

Philippe Geubelle introduced the Grainger College of Engineering's academic strengths, alumni network, and talent development approach. He highlighted the value of interdisciplinary learning and hands-on practice, encouraging students to build teamwork skills, think innovatively, and combine engineering knowledge with social responsibility.

Lee Der-Hong shared three key messages: Discover Your Purpose, Stay Curious, Lead with Responsibility. He encouraged students to make the most of ZJU's multicultural and interdisciplinary resources, pursue innovation with courage, and develop leadership through collaboration and problem-solving.

The convocation concluded with interactive exchanges between the UIUC delegation and the Class of 2029 on topics such as professional development and interdisciplinary learning. Students engaged actively, and the discussions further inspired them to embrace the future with broader perspectives and stronger determination.

John Coleman emphasized that ZJU, jointly built by Zhejiang University and UIUC, combines the academic traditions and strengths of two world-class universities. He encouraged students to embrace challenges, seize opportunities on this global platform, and grow into versatile talents with vision, responsibility, and interdisciplinary skills.



Wu Yingcai warmly welcomed the new students and expressed gratitude to UIUC and parents for their support. He

World's First Electrically-driven Perovskite Laser

Date: August 29, 2025
Article: From interviewee
Photo: From Interviewee

Recently, the research team led by Prof. Di Dawei invented an electrically-driven perovskite laser. The related research paper entitled "Electrically driven lasing from a dual-cavity perovskite device" was recently published in Nature (Zou et al, Nature (2025), <https://doi.org/10.1038/s41586-025-09457-2>). The corresponding authors of the paper are Prof. Di Dawei, Dr. Zou Chen and Prof. Zhao Baodan of Zhejiang University. The first author of the paper is Dr. Zou Chen.



Semiconductor lasers are critical light sources for information technologies, but their fabrication processes are often complicated and costly. There are some solution-processable lasing materials, such as organic, quantum dot and perovskite semiconductors, which can be easily integrated with the mass-produced silicon platforms at low cost. Among these materials, perovskite semiconductors stand out as an exceptional class owing to their ability to achieve surprisingly low threshold lasing under optical pumping.

Congratulations to Prof. Li Erping & Prof. Shen Youqing

Date: November 21, 2025
Article: Wang Chuxi

On November 21st, the Chinese Academy of Sciences (CAS) and the Chinese Academy of Engineering (CAE) respectively announced their lists of new Members for 2025. Prof. Li Erping, Qiushi Chair Professor at Zhejiang University, was elected a Foreign Member of the Chinese Academy of Engineering (CAE), while Prof. Shen Youqing, Dean of the College of Chemical and Biological Engineering of Zhejiang University, was elected a Member of the Chinese Academy of Sciences (CAS).

Both maintain profound connections with ZJU and have been pivotal to its founding and development. Prof. Li Erping, ZJU's Founding Dean, laid a solid foundation for the Institute during its critical formative years and envisioned its long-term development blueprint. Prof. Shen Youqing served on the ZJU Joint Management Committee from 2020 to 2021, offering invaluable insights into institutional governance and strategic planning.

Graduate students published a paper in Renewable and Sustainable Energy Reviews

Date: July 29, 2025
Article: From interviewee

Researchers from the Zhejiang University - University of Illinois Urbana-Champaign Institute (ZJU), including Ye Fengyang, a 2022 Master's student in Civil and Hydraulic Engineering of ZJU; Wei Hanlin, a 2023 doctoral student in Structural Engineering of ZJU; ZJU Prof. Xiao Yan, and Prof. Cristoforo Demartino from Roma Tre University, have published a comprehensive review titled "Bio-based insulation materials in sustainable constructions: A review of environmental, thermal and acoustic insulation, durability, and mechanical performances." The paper was published in Renewable and Sustainable Energy Reviews (IF 16.3).

The paper reviews 395 studies on bio-based insulation—derived from bamboo, wood, hemp, rice husks, and bagasse—highlighting their low-carbon footprint, thermal and acoustic properties, durability, and mechanical performance. Compared to traditional glass fiber and foam plastics, these renewable materials consume less energy in production, can even achieve near-zero or negative carbon footprints, and align with sustainable building goals. This work provides a valuable database and practical guidance for both researchers and practitioners, supporting the adoption of bio-based materials in low-carbon and eco-friendly construction.

The implementation plan review meeting for "Personalized and Inclusive Childcare Service Technologies and Platform"

Date: August 2, 2025
Article: From the research group of Prof. Wang Hongwei
Photo: From the research group of Prof. Wang Hongwei

Recently, the implementation plan review meeting for the National Key Research and Development Program project: "Personalized and Inclusive Childcare Service Technologies and Platform," led by Zhejiang University, was held at International Campus, at Zhejiang University. The meeting brought together a panel of distinguished experts, leaders

from relevant departments and the project leader and principal investigators of subproject, as well as more than 60 core members from the leading institution, sub-project units, and participating organizations. The meeting was chaired by Wu Jian, Vice Dean of the International Campus, Zhejiang University, and Li Hanying, Executive Vice Dean of the Office of Scientific and Technological Research, Zhejiang University who delivered opening remarks on behalf of the host institution.

The "Personalized and Inclusive Childcare Service Technologies and Platform" project, led by Professor Wang Hongwei, Vice Dean of the Zhejiang University-University of Illinois Urbana-Champaign Institute, addresses three major structural challenges facing childcare sector: the gap between limited high-quality service supply and the growing demand for scientific parenting, the mismatch between outdated service models and the need for advanced technological applications, and the tension between a weak regulatory system and the urgent need for stronger safety assurances. The project aims

ZJU Faculty Leads Subproject in National Research and Development Program on Precision Intervention for Abnormal Child Behavior

Date: July 23, 2025
Article: From interviewee

Recently, the Administrative Center for China's Agenda 21 announced the evaluation results for the 2024 public projects under the National Key Research and Development Program "Science and Technology Support for Social Governance and Smart Society." Among the selected projects is the initiative titled "Research and Application of Key Technologies for Precision Intervention in Abnormal Child Behavior", led by Peking University. Assist. Prof. Liu Zuozhu from Zhejiang University-University of Illinois Urbana-Champaign Institute (ZJU), has been appointed as the principal investigator of Subproject 4.

The project addresses challenges in diagnosing and treating behavioral disorders such as Autism Spectrum Disorder (ASD) and Attention-Deficit/Hyperactivity Disorder (ADHD). It aims to build a comprehensive, high-precision system for assessment and personalized intervention, spanning all developmental stages and environments.

The opening ceremony of the Smart City module was held at the International Campus, Zhejiang University

Date: July 7, 2025
Article: Wang Chuxi
Photo: Wang Chuxi

The opening ceremony of the Smart City module of the 2025 SDG Global Summer School at Zhejiang University was held in the Multimedia Hall of the International Campus, Zhejiang University on July 7th. This module offered by the Zhejiang University-University of Illinois at Urbana-Champaign Institute (ZJU), brought together over 20 students from renowned universities worldwide including University College London, Cornell University, the National University of Singapore, Zhejiang University, and Northwestern Polytechnical University. During the ceremony, there were speeches by Professor Qu Haidong, Vice Dean of the International Campus, Zhejiang University, Professor Lee Der-

Hong, Dean of ZJU, Professor Ma Hao, Vice Dean of ZJU, Associate Professor Yang Liangming, module faculty representative, and Jin Zhe, student representative respectively. The ceremony was hosted by Professor Wang Hongwei, Vice Dean of ZJU.

Smart City is a new urban model that optimizes urban management and services through intelligent means. As one of the key strategies to achieve sustainable development, it will promote more efficient, greener, and more sustainable social development, and create a more convenient and comfortable living environment for people. Focusing on two knowledge areas—Smart Transportation and Autonomous Driving and Internet of Things (IoT) and Service Robots—this module guides students to systematically learn the core concepts of Smart City and explore its development pathways. The goal is to further enhance their ability to use digital tools to address urban issues and contribute ideas to solving global sustainable development challenges.



ZJU Students Won the First Prize of the Eighth National University Contest on Intelligent Robotic Innovations

Date: August 30, 2025
Article: From interviewee

The 8th National University Contest on Intelligent Robotic Innovations recently concluded in Yuyao, Zhejiang Province. This year's contest featured three themed events, three special events, and one industry-education integration event, attracting 752 universities, 10,880 teams, and over 47,000 students nationwide. More than 4,000 students advanced to the national finals.

A team from the Zhejiang University - University of Illinois Urbana-Champaign Institute (ZJU) won first prize. The team included Cha Haoyun and Wu Liangliang, class of 2027 in Electrical Engineering, Guo Keying, class of 2027 in Mechanical Engineering, and Zhang Jianghan, class of 2027 in Civil Engineering.

ZJU Students Won the Second Prize TI Cup National Undergraduate Electronic Design Contest 2025

Date: September 4, 2025
Article: From interviewee

The award results of the TI Cup National Undergraduate Electronic Design Contest 2025

have recently been announced. In the undergraduate category, 89 entries were recommended for national awards, including 27 provincial first prizes, 131 second prizes, and 223 third prizes. A team from ZJU—Chi

Guanzhang, class of 2027 in Electrical Engineering, Li Xiang, class of 2028 in Computer Engineering, and Gu Mingzhi, class of 2026 in Electrical Engineering—won the national second prize.

the project's strategic value, research approach, and technical roadmap. Moving forward, the project team will strictly follow the expert panel's comments, refine the service model design, strengthen the integration of technological development with real-world applications, and actively promote the large-scale implementation and dissemination of research outcomes. With a strong sense of responsibility and mission, all project members are committed to breaking through core childcare service technologies, establishing a new paradigm for inclusive childcare, and contributing solid scientific and technological support to improve the quality of childcare services and promote long-term demographic balance.



The Second Electric Road Systems & Sustainable Smart Logistics Conference was held at the International Campus, Zhejiang University

Date: July 15, 2025
Article: The Organizer
Photo: The Organizer



The 2nd Electric Road Systems & Sustainable Smart Logistics Conference was held from July 14 to 15 at the International Campus, Zhejiang University. Focusing on the zero-carbon transition in road freight and innovation in smart logistics, the conference brought together leading scholars and industry experts from around the world—including representatives from the University of Cambridge, the Research Institute of Highway, Ministry of Transport, TRATON China, Tongji University, and Zhejiang University. Co-hosted by Zhejiang University and the University of Cambridge, co-organized by the Zhejiang Federation of Artificial Intelligence and the Technical Committee on Vehicle Control and Intelligence, and hosted by the Zhejiang University–University of Illinois at Urbana-Champaign Institute (ZJUI). The event promoted a sustainable transportation system that integrates economic

growth, environmental responsibility, and social well-being.

As a major international academic platform in the fields of road freight electrification and smart logistics, the convening of this conference added new momentum to global efforts toward low-carbon and intelligent transportation. It also highlighted Zhejiang University's leadership in promoting sustainable mobility and fostering deep integration between academia and industry. Looking ahead, Zhejiang University–University of Illinois at Urbana-Champaign Institute (ZJUI) will continue partnering with institutions worldwide to drive innovation and also to explore forward-looking, sustainable solutions for the future of transportation. [🔗](#)

For Urban Low-Altitude Space: Technological Breakthroughs in UAV Takeoff & Landing Sites

Date: September 30, 2025
Article: From interviewee
Photo: From interviewee

Led by Prof. Lee Der-Hong, Dean of Zhejiang University–University of Illinois Urbana Champaign Institute (ZJUI), two major platforms—the Platform for Theories and Key Technologies of Integrated Transportation and the Zhejiang Provincial Engineering Research Center for Multimodal Transport Logistics Large Models—have long focused on technological R&D in fields such as port-hinterland multimodal transportation logistics, smart transportation, public transport capacity sharing, and low-altitude logistics. Recently, Prof. Lee Der-Hong led his team to achieve phased breakthroughs in two key areas: the construction of UAV (Unmanned Aerial Vehicle) takeoff and landing sites in complex urban low-altitude environments, and air-ground integrated collaboration technology. These breakthroughs have provided an implementable "Zhejiang Solution" for the development of general infrastructure for low-altitude logistics.

The team focuses on building the technological system of "intelligent UAV takeoff/landing equipment+air-ground integrated logistics network" and prioritizes four core technologies: Unified Access

(for heterogeneous UAVs), enabling unified perception, secure access and stable autonomous operation in complex airspace; 2-in-1 Compartment, boosting UAV ground turnaround efficiency via synchronized battery/cargo swapping; Dynamic Scheduling, offering an innovative online algorithm for urban multi-point/mode scenarios to support fast task response; and Takeoff/Landing Equipment, using modular, scalable design to fit multiple UAV models and enable parallel operations. These four technologies will form low-altitude logistics' general infrastructure system, providing core support for demonstration applications. [🔗](#)



The "Ninghai Bamboo Tower" project by ZJUI Prof. Xiao Yan' s Team Won the China Wood and Bamboo Structure Premium Project Gold Award

Date: November 20, 2025
Article: From interviewee
Photo: From interviewee

On November 20, the "Ninghai Bamboo Tower" project was honored with the prestigious China Wood and Bamboo Structure Premium Project Gold Award during the 12th China Timber Structure Industry Conference and the 2nd Modern Timber and Bamboo Architecture & Residential Industry Forum in Penglai, Shandong, one of China's highest awards in timber and bamboo construction. The project was designed and constructed by the team led by ZJUI Prof. Xiao Yan, Director of the Zhejiang University (Ninghai) Joint Research Center for Bio-based Materials and Carbon Neutral Development.

Located in Ninghai County, Ningbo, the "Ninghai Bamboo Tower" is a seven-story mid-rise structure (six standard floors plus a loft) with a total height of 20.3 meters and a floor area spanning approximately 800 square meters. Constructed mainly with composite engineered bamboo structural materials, the project adopts performance-based

design, digital-twin fabrication, and modular prefabrication. As the world's first seven-story building utilizing engineered bamboo, it solidifies its status as the tallest such structure to date while marking a significant milestone for bamboo-based construction. Spearheaded by Prof. Xiao, the project was co-developed in collaboration with Ninghai County Architectural Design Institute and Ningbo Bamdoos New Materials Technology Co., Ltd., setting a benchmark for integrated industry-university-research innovation. [🔗](#)



ZJUI Students Recognized as Winners in UIUC Rhetoric Student Essay Contest

Date: October 11, 2025
Article: Wang Chuxi

The results of the UIUC Rhetoric Student Essay Contest were recently announced, with Lu Zihan, class of 2028 in Electrical Engineering, and Xu Junhan, class of 2028 in Mechanical Engineering at ZJUI, recognized as

winners of the 2025 Autumn/Winter Contest under the guidance of UIUC Adjunct Faculty Lecturers Ashley Barr and Mary Lucille Hays. Both students distinguished themselves through original research topics, strong analytical reasoning, and eloquent writing, excelling in the contest with native English speakers. [🔗](#)

ZJUI Students Won National First Prize in the 18th National Structure Design Contest for College Students

Date: November 5, 2025
Article: From interviewee

The 18th National Structure Design Contest for College Students was successfully held from October 15 to 19, 2025. This year's contest, themed "Design and Fabrication of a Wupeng Boat Structural Model," drew 1,792 teams from 591 universities across 31 provinces and regions in China. After intense rounds of design, testing, and expert assessment, a team including He Nuoyu and Xiang Shihan, both

Class of 2028 in Civil Engineering from ZJUI, and Liu Yangao, Class of 2027 from the College of Civil Engineering and Architecture, Zhejiang University claimed the National First Prize. Their entry "Shenzhou Hao" also secured eighth place overall in the national finals.

Inspired by the traditional Wupeng boats of the Jiangnan region, the team integrated principles of structural mechanics and fluid dynamics to develop a highly efficient yet elegant structural design. The vessel features a raised bow and a longitudinally-transversely interlaced keel structure, which optimizes the water entry angle to minimize wave resistance while ensuring exceptional stability and impact resistance. Through extensive simulations and experimental validations, the "Shenzhou Hao" delivered outstanding performance in speed, stability, and load-bearing capacity, he garnered unanimous acclaim from the experts. [🔗](#)

Graduate students published a paper in IEEE Transactions on Wireless Communications

Date: November 28, 2025
Article: From interviewee

Recently, a research team led by ZJUI Assist. Prof. Yang Hao has achieved a series of significant findings in the field of simulated over-the-air federated learning for edge intelligence networks. These results have been formally published in IEEE Transactions on Wireless Communications, a top-tier international journal in wireless communications (CAS Tier 1, Impact Factor=10.7). The paper's authors include Zhu Jiaqi, a 2023 Master student in Electronic Information; corresponding author ZJUI Assist. Prof. Yang Hao; and co-authors Prof. Bikramjit Das from the Singapore University of Technology and Design (SUTD), Prof. Xie Yong from Nanjing University of Posts and Telecommunications (NJUPT), and Prof. Nikolaos Pappas from Linköping University (LiU), Sweden.

Through theoretical construction and experimental validation, this research comprehensively reveals the core advantages and operational mechanisms of over-the-air federated learning in large-scale client scenarios. It offers novel technical insights and theoretical foundations for breaking through the communication bottleneck of federated learning and improving system performance, holding great significance for advancing the large-scale deployment and application of federated learning technology. [🔗](#)

Graduate students published a paper in IEEE Transactions on Sustainable Energy

Date: December 16, 2025
Article: From interviewee

Recently, a research team led by ZJUI Assoc. Prof. Diao Ruisheng has achieved progress in the stability analysis and control design of grid-forming renewable energy systems. The work was recently published in Institute of Electrical and Electronics Engineers (IEEE) Transactions on Sustainable Energy (TSTE), a leading Q1 journal in electrical engineering.

The paper is authored by Sun Fangyuan, a 2022 doctoral student in Electrical Engineering, as the first author, with Assoc. Prof. Diao Ruisheng serving as the sole corresponding author. Additional contributors include Zeng Ruiyuan, a 2023 master's student in Electrical Engineering, as well as Dr. Zhang Jing, ZJUI industry-affiliated supervisor and Qian Jianguo from Zhejiang Electric Power Corporation. In conventional power systems, transient angle stability and transient voltage stability are typically analyzed as separate issues due to their distinct time scales. However, for grid-following converters, the phase-angle dynamics governed by phase-locked loops (PLLs) operate on a much faster time scale than those of traditional synchronous machines and align with voltage dynamics. This overlap significantly strengthens the coupling between angle stability and voltage stability, rendering conventional decoupled analysis methods inadequate. In this context, the present study systematically investigates the impact of grid-following converter angle dynamics on post-fault voltage recovery under multiple fault scenarios, offering new insights into stability analysis for large-scale renewable integration. [🔗](#)

Outstanding Graduates Highlights

Wang Binhao, class of 2025 in Electrical Engineering of ZJUI, has achieved outstanding academic performance, earning the Zhejiang University First-Class Scholarship, Second-Class Scholarship, Third-Class Scholarship. In academic research, he co-authored a paper which was presented at the 2024 IEEE ITEC Asia-Pacific. Notably, he is also an amateur 5-dan Go player, winning second place in the 2022 Zhejiang University International Campus "Freshman Cup" Board Game Competition. And he participated in the Chicago City Go Tournament and secured fourth place in the high-dan division (5d+). Currently, he has received admission offers from several prestigious universities worldwide. He is now pursuing his academic journey at the University of California, Los Angeles. [🔗](#)



Jin Xuanyi, class of 2025 in Mechanical Engineering of ZJUI, has been recognized with multiple honors, including the title of "Model Student for Academic Excellence" for 2023–2024. His academic achievements also include several prestigious awards, such as the Zhejiang University Second-Class Scholarship, placement on the Dean's List. Outside the classroom, he earned the title of "Best Rookie" at the 2021 Freshman Cup Soccer Tournament on the International Campus and later representing International Campus, Zhejiang University in the ZJU 2025 "Tri-A Cup" Football Match. With his outstanding academic performance and comprehensive qualities, he received admission offers from world-renowned universities. He ultimately chose to pursue a master's degree in Electrical and Computer Engineering at the University of Texas at Austin to continue chasing his dreams. [🔗](#)



Fang Fang, class of 2025 in Civil Engineering, as a teaching assistant, she demonstrated meticulous attention to detail and patient guidance, earning unanimous praise from both faculty and students. Her outstanding overall performance earned her a place on the Dean's List. Beyond academics, she pursues diverse interests including painting, photography, language, crafts, and bass guitar. She also served as president of the POITA Art Club at International Campus, Zhejiang University, leading club members on museum visits, conducting video-based lessons and experience-sharing sessions, building bridges of communication, and fostering collaboration and growth among members. She is now embarking on her next chapter at Stanford University. [🔗](#)



Jaden Peterson Wen, class of 2025 in Electronics and Computer Engineering from Indonesia. He has always taken steady steps, each moving toward a clear direction—constantly unlocking his potential, and gradually discovering more possibilities in life amid academic research and cross-cultural interactions. During the two summer vacations between his junior and senior years, Jaden volunteered to work as a teacher at Haining Hongda Secondary School, designing interactive English classes for over 200 students. Now, Jaden has graduated from ZJUI and is pursuing master degree in Data Science at Tsinghua Shenzhen International Graduate School, having been awarded a full scholarship. We would invite you to experience the vivid, touching growth journey he had at ZJUI. [🔗](#)



Loigen Sodian, class of 2025 in Electrical Engineering & Automation, embarked on his journey from Indonesia to ZJUI. He is also the first international student to serve as a teaching assistant (TA). He presented the research findings at the IEEE International Conference as the first author. With his solid academic background and warm tutoring style, he became a reliable helper for students tackling calculus challenges. He has now completed his undergraduate studies here and is pursuing a doctoral degree in Physics at the National University of Singapore (NUS). [🔗](#)



Graduate students published a paper in Laser & Photonics Reviews

Date: December 5, 2025
Article: From interviewee

Recently, a research team led by ZJUI Assist. Prof. Qian Chao made significant progress in the intelligent design of meta surfaces. By introducing a physics-informed adaptive screening mechanism, the team successfully achieved the robust transfer of design knowledge for complex micro-nano structures across different scenarios. Relevant findings have been published in Laser & Photonics Reviews, a prestigious international journal in optics (CAS Category 1, Impact Factor = 10.0). Huang Can, a 2024 Master student in Electronic Information, is the first author of the paper. This work presented an efficient computing paradigm integrating physical priors and adaptive mechanisms, addressing long-standing frequency specificity and negative transfer issues in broadband metasurface inverse design. Its physics-informed design is applicable to terahertz and optical bands, with promising applications in intelligent adaptive metasurfaces, dynamic holography, and wireless communications. [🔗](#)

Graduate students published papers in IEEE Transactions on Communications and IEEE Antennas and Wireless Propagation Letters

Date: December 18, 2025
Article: From interviewee

Recently, the research team led by Assoc. Prof. Said Mikki of Zhejiang University–University of Illinois Urbana-Champaign Institute (ZJUI) has made two significant research advances. Notably, the team's research achievement in the field of wideband near-field communication system design, Neural Network Realizations of Wideband Near-Field Communication Systems: An Electromagnetic Design Approach, has been published in IEEE Transactions on Communications, a globally renowned academic journal. The first author of the paper is Jiarun Hu, the corresponding author is Associate Professor Said Mikki, and the second author is Thng Guo Hao, a postdoctoral researcher at Zhejiang University. By integrating deep neural networks with first-principles physics, this work introduces a new paradigm for wideband near-field communication system design, achieving high-precision real-time focusing and demonstrating the potential of neural networks to accelerate physical optimization, thereby providing theoretical and practical foundations for intelligent 6G and future communication systems. In addition, the team proposed a novel method based on infinitesimal dipole representation and neural networks for multifrequency near-field focusing. This method successfully addresses the challenge of near-field focusing for practical antenna arrays in the presence of mutual coupling. The related research findings, Multifrequency Near-Field Focusing Through Infinitesimal Dipole Models and Neural Networks, were published in IEEE Antennas and Wireless Propagation Letters, another prestigious international journal. The first author of the paper is Jiarun Hu, the corresponding author is Associate Professor Said Mikki. [🔗](#)

Welcome on board

Yang Min, Lecturer

Dr. Min Yang completed her PhD in Technical Communication and Rhetoric from the Department of English, Texas Tech University, where she also received her second MA in Applied Linguistics from the School of Foreign Languages. During her studies at Texas Tech, she taught College Rhetoric and Technical Writing and served as the assistant director of First Year Writing program. Dr. Yang studies language, identity, and power from feminist perspectives and explores the pedagogy of developing intercultural competence in technical writing learners.



Lin Fanfan, Assistant Professor

Dr. Fanfan Lin received her bachelor's degree in electrical engineering with a minor in English language and literature from Harbin Institute of Technology, Harbin, China, in 2018, and her joint Ph.D. degree with the interdisciplinary research in power electronics and artificial intelligence (AI) from Nanyang Technological University (NTU) Singapore, and the Technical University of Denmark, in 2023. Prior to her time in academia, Dr. Lin was an AI startup founder and was part of the Sequoia Capital (Southeast Asia) Spark Fellowship Program. Dr. Lin has been recognized with multiple awards, including the 2023 NTU Graduate College Innovation and Entrepreneurship Award and the Second Prize Paper Award from the IEEE Industry Applications Society in 2022. She actively serves as a reviewer for leading journals and conferences such as IEEE Transactions on Power Electronics, and IEEE Transactions on Industrial Electronics.



Di Dawei, Tenured Professor

Dr. Dawei Di is a full professor at the ZJU–UIUC Institute/College of Optical Science and Engineering, and Deputy Director of the International Research Center for Advanced Photonics, Zhejiang University. He was an honoree of MIT Technology Review "Innovators Under 35" (global, 2019) and "Innovators Under 35, China" (2018). Dawei Di obtained a PhD (in Engineering) from the University of New South Wales, Australia and a second PhD (in Physics) from the University of Cambridge, UK. His doctoral supervisors include renowned scientists in optoelectronics and semiconductor physics, Professor Sir Richard H. Friend (FRS, FREng, FIEE, FInstP, Kt) (Cavendish Professor of Physics), and Scientist Professor Martin A. Green (FRS, AM, FIEEE, FAA, FTSE). His work has been featured in research news and highlights in high-profile journals such as Nature, Nature Photonics and Nature Materials.



Research Interests: writing pedagogy, intercultural technical and professional communication, second language acquisition [🔗](#)

Research Interests: AI-Driven Power Electronics Design and Lifecycle Management, Safe and Trustworthy AI for Energy, AI-Enhanced Battery Management and Health Monitoring [🔗](#)

Research Interests: Perovskite and organic optoelectronics, Light-emitting diodes, Semiconductor lasers, Solar cells, Semiconductor device physics [🔗](#)



ZJU-UIUC INSTITUTE
Zhejiang University-University of Illinois Urbana-Champaign Institute
浙江大学伊利诺伊大学厄巴纳香槟校区联合学院

ZJUI

Newsletter

浙江大学伊利诺伊大学厄巴纳香槟校区联合学院 | 2025 秋冬季刊 | 第 31 期

ZJUI2025 级新生欢迎仪式举行

时间：2025 年 9 月 14 日
文：王楚希、金秀坊
图：海蓝文化

9 月 14 日上午，浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（ZJUI）2025 级新生欢迎仪式在国际校区学术大讲堂举行。师生家长齐聚一堂，满怀理想与期待，共同开启新的篇章。

UIUC 副校长、教务长 John Coleman，浙江大学发展委员会副主席、ZJUI 联合管理委员会联合主席何莲珍，国际联合学院（海宁国际校区）党委书记、副院长李敏，常务副院长、副书记巫英才，副院长吴健，党委副书记、纪委书记魏海东，副院长陈良，建筑工程学院副院长陈喜群，信息与电子工程学院副院长王玮等学校相关院系代表，以及校区有关部门负责人出席。UIUC 工学院常务副院长 Philippe Geubelle，工学院副院长 Jonathan Makela 出席。ZJUI 院长李德炫，执行院长金建铭、副院长王宏伟、副院长王伟烈出席。ZJUI 教职工代表、新生家长代表参加仪式。

John Coleman 表示，作为浙江大学与 UIUC 携手共建的工程学院，ZJUI 融合了两所世界一流学府的学术传统与教育优势，在承袭深厚历史底蕴的同时，持续推进科研创新与跨学科融合，为学子们创造了独特而富有活力的学习沃土。他勉励新生们把握这一汇聚全球资源的创新实践平台，勇敢拥抱未知、积极迎接挑战，秉承两校开放协作和勇于探索的精神，在学术追求与工程实践中不断提升自我，努力成长为具备全球视野、社会责任感和跨学科能力的复合型人才。

巫英才向全体新生表示诚挚欢迎，并向长期支持学院发展的合作伙伴 UIUC 及家长致以衷心感谢。他强调，在全球化与科技进步深度融合的今天，国际校区作为全球合作教育的典范，始终致力于培养融合中西教育精华，培养能够应对未来挑战的卓越工程人才。他勉励同学们要敢于质疑、勇于突破，在不断超越自我的过程中激发潜能；主动融入跨文化环境，在国际格局中审视专业价值与社会责任；更应珍惜韶华、勤于实践，将个人成长融入人类共同发展的进程之中，以智慧与担当为构建可持续发展的世界贡献青春力量。

Philippe Geubelle 为全体新生介绍了 UIUC 工学院相关专业的学科建设、师资队伍、校友力量与人才培养模式等，强调工学院坚持跨学科融合与实践导向，致力于培养能够应对全球性挑战的创新型工程人才。他鼓励学生主动融入团队协作、积极参与实践项目，在解决实际问题过程中提升综合素质与创新能力。期望新生保持跨学科学习的热情，以创新思维应对复杂挑战，将工程知识与人文关怀相结合，为推动技术革新与社会发展贡献力量。

李德炫围绕“树立目标、保持探索、践行领导力”三大核心，对全体新生未来的学习与成长提出殷切期望。他鼓励同学们怀着开放包容的心态，在多元文化交融的学术共同体中，主动探寻专业方向与人生路径；善用学院提供的跨学科平台与丰富资源，勇于提出新问题、尝试新方法，始终保持科学追求与创新活力；同时应胸怀天下、勇于担当，在国际化协作与实际解决问题中锤炼领导素养，将专业知识转化为实现个人成长与专业成就的重要支撑。

本科生新生代表任相仪表示，能够加入 ZJUI 大家庭倍感荣幸。她立志秉持“求是创新”的精神，坚毅前行，在锤炼自我的过程中不断成长，与大家一同在 ZJUI 书写新的篇章。家长代表徐雅闻向新生们寄语，希望大家在充满挑战与机遇的求学之路上，始终保持初心，勇于尝试与探索，让每一步都走得坚定而精彩。

新生们为大家带来了精彩的节目表演，现场气氛热烈，观众掌声不断。在感恩家长环节，新生为家长佩戴徽章，表达对父母多年来辛勤付出与无私守护的感恩之情。

最后，UIUC 代表团与 2025 级新生围绕专业发展、跨学科学习与实践等主题进行交流互动。新生们积极提问，现场氛围轻松而热烈。UIUC 代表团的到访与分享，进一步激励同学们以更开阔的视野、更坚定的信念去迎接未来的挑战与机遇。



ZJUI 狄大卫教授团队研究成果登《自然》

时间：2025 年 8 月 29 日
图文：受访者提供

近日，狄大卫教授、邹晨研究员和赵保丹教授团队研制了世界上第一个电驱动钙钛矿激光器。相关研究成果以“Electrically driven lasing from a dual-cavity perovskite device”为题发表于《自然》。邹晨是论文第一作者。狄大卫 / 邹晨 / 赵保丹为论文通讯作者，浙江大学为该研究的唯一完成单位。



电驱动钙钛矿激光器是一个包含两个光学微腔的“双腔”激光器，它将低阈值钙钛矿单晶微腔子单元与高功率微腔钙钛矿 LED 子单元集成于同一个器件，形成了一个垂直堆叠的多层结构。这种新型半导体激光器，其发射激光所需的最小电流（阈值电流）为 92A/cm²，比最好的有机半导体激光器还低一个数量级，且表现出较好的稳定性，并能在 36.2 MHz 的带宽下实现快速调制，有望应用于片上数据传输、计算和生物医学等领域。

祝贺李尔平教授和申有青教授当选两院院士

时间：2025 年 11 月 21 日
文：王楚希

11 月 21 日，中国科学院、中国工程院分别公布 2025 年新增院士名单。浙江大学求是讲席教授李尔平当选为中国工程院外籍院士，浙江大学化学工程与生物工程学院院长申有青当选中国科学院院士。

新当选的两位院士，在各自研究领域深耕多年，作出了卓越贡献。不仅如此，他们与浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（ZJUI）有着深厚渊源，更是学院建设与发展的重要推动者和奠基人：李尔平院士作为 ZJUI 创院院长，在学院初创的关键阶段，既为学院建设筑牢了坚实根基，更擘画了长远发展蓝图；申有青院士曾于 2020 年至 2021 年担任 ZJUI 联合管理委员会成员，为学院治理体系完善与长远发展规划积极建言献策。

我院研究生在 Renewable and Sustainable Energy Reviews 期刊发表论文

时间：2025 年 7 月 29 日
文：受访者提供

浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（ZJUI）的 2022 级土木工程水利专业硕士研究生叶凤扬（现赴香港大学攻读博士学位）、2023 级结构工程专业博士研究生卫翰林，与导师 ZJUI 肖岩教授、合作导师 Cristoforo Demartino 教授（意大利罗马第三大学建筑系）共同完成的综述论文“Bio-based insulation materials in sustainable constructions: A review of environmental, thermal and acoustic insulation, durability, and mechanical performances”已正式发表在国际权威期刊 Renewable and Sustainable Energy Reviews（影响因子 16.3）。

为推动建筑绿色低碳发展，生物质材料（如竹材、麻秆等可再生资源）成为研究焦点。该论文梳理 395 篇文献，从碳足迹、热学 / 声学 / 力学性能及耐久性展开研究，建立数据库为学术与产业应用提供支撑。其核心发现包括：生物质材料生长中固碳，碳足迹近零甚至为负，可降低建筑全生命周期碳排放；构建热导率 - 密度线性模型、噪声吸收系数 - 密度 / 厚度多变量模型，助力优化建筑设计；硬质材料（竹 / 木）强度高适配结构应用，软质材料（麻秆 / 稻草）保温性优适用于填充；通过热处理、化学改性等方式可提升材料耐久性，增强工程应用竞争力。

“个性化普惠育幼技术与服务平台”国家重点研发计划项目启动会暨实施论证会召开

时间：2025 年 8 月 1 日
图文：王宏伟教授课题组

近日，由浙江大学牵头的国家重点研发计划“个性化普惠育幼服务技术与服务平台”项目启动暨实施方案论证会在浙江大学海宁国际校区召开。浙江大学科学技术研究院常务副院长李寒莹出席并致辞。会议由浙江大学国际联合学院（海宁国际校区）副院长吴健主持。

国家自然科学基金委员会高技术研究中心主管吕洪涛、中国人口与发展研究中心副主任陈佳勇、浙江省文化广电和旅游厅科技教育处副处长赖宗平、浙江大学科学技术研究院高新部部长徐文渊、浙江大学科学技术研究院高新部主管董先巍、

浙江大学国际联合学院（海宁国际校区）科研与成果转化部部长王金平等项目相关管理部门领导，项目管理特邀专家张金国研究员，项目负责人和各课题负责人，以及来自项目牵头单位、课题牵头单位以及参与单位的项目骨干等 60 余人出席和参加本次会议。

本次会议特别邀请中国计量大学肖刚教授、中国传媒大学蒋伟教授、北京理工大学刘越教授、浙江工商大学王勋教授和上海大学曾丹教授等行业权威专家组成专家组，为项目实施方案提供咨询指导。

“个性化普惠育幼服务技术与服务平台”项目由浙江大学伊利诺伊大学厄巴纳香槟校区联合学院副院长王宏伟教授牵头，积极响应关于《3 岁以下婴幼儿照护服务指导意见》政策要求，针对我国育幼服务领域存在的三大结构性矛盾——优质服务供给不足与家庭科学养育需求增长的矛盾、传统服务模式滞后与前沿技术应用需求的矛盾、行业监管体系薄弱与安全保障刚性需求的矛盾，开展系统性技术创新与服务模式重构。本项目面向普惠同质育幼、科学精准育幼、安全放心育幼三大需求，围绕婴幼儿健康、语言、认知等成长要素，通过普惠同质与个性化发展的有机结合，建

ZJUI 刘佐珠研究员获批国家重点研发计划“社会治理与智慧社会科技支撑”重点专项课题

时间：2025 年 7 月 23 日
文：受访者提供

近日，中国 21 世纪议程管理中心发布了国家重点研发计划“社会治理与智慧社会科技支撑”重点专项 2024 年度公开项目评审结果，由北京大学牵头，浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（ZJUI）助理教授、研究员刘佐珠担任课题四负责人的“儿童异常行为精准干预关键技术及应用”项目成功获批。该项目由国家教育部推荐，北京大学牵头，联合浙江大学、中国科学院自动化研究所、北京大学第六医院、北京科技大学等课题承担单位联合申报。

项目聚焦当前儿童孤独症（ASD）、注意缺陷多动障碍（ADHD）等异常行为识别精度低、干预效能差的重大问题，从儿童异常行为精准感知、智能评估和个性化干预全流程出发，致力于构建覆盖全功能维度、全发育周期、全社会环境的精准评估及高效干预体系，推动儿童异常行为精准干预技术研发和应用示范。该项目下设五个课题，我院助理教授、研究员刘佐珠作为课题四负责人，承担“儿童异常行为自适应干预的精准化与智能化技术”课题。

建立多方协同的全新育幼服务模式；建立融合多模态大模型的新型育幼服务平台；构建集多方协同育幼服务与智能化综合监管功能于一体的安全综合监管平台。

本次会议为项目启动暨实施方案论证会，目的是围绕项目申报指南以及项目任务书的内容，向各位领导和专家汇报项目和课题的具体实施方案，论证项目一体化组织实施工作方案的科学性、合理性和可推广应用。



浙江大学 2025 年 SDG 全球暑期学校智慧城市模块开幕式暨欢迎仪式举行

时间：2025 年 7 月 7 日
图文：王楚希

7 月 7 日，浙江大学 2025 年 SDG 全球暑期学校智慧城市（Smart City）模块开幕式在浙江大学国际联合学院（海宁国际校区）多功能厅举行。该模块由浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（ZJUI）开设，汇聚了全球来自伦敦大学学院、康奈尔大学、新加坡国立大学、浙江大学、西北工业大学等院校的 20 余名学生。国际联合学院（海宁国际校区）党委副书记魏海东，ZJUI 院长李德炫、副院长马皓、副教授杨量景等出席仪式。开幕式由 ZJUI 副院长王宏伟主持。

智慧城市是通过智能化手段优化城市管理和服务的新型城市模式，是实现可持续发展的重要战略之一，将推动社会更高效、绿色、可持续发展，为人们创造更便捷、舒适的生活环境。本模块围绕智慧交通与无人驾驶、物联网与服务机器人两大知识板块，引导学生系统学习智慧城市核心概念，探索智慧城市发展路径，以进一步提升运用数字化工具解决城市问题的能力，为解决世界可持续发展问题出谋划策。



ZJUI 学子荣获中国高校智能机器人创意大赛一等奖

时间：2025 年 8 月 30 日
图文：受访者提供



ZJUI 学子荣获中国高校智能机器人创意大赛一等奖

时间：2025 年 8 月 30 日
图文：受访者提供

近日，第八届中国高校智能机器人创意大赛全国决赛在浙江省余姚市举行。本届大赛设有 3 个主题赛事、3 个专项赛事和 1 个产教融合创意赛事，今年的比赛共吸引全国 752 所高校、10880 支参赛团队、4.7 万余名学生参与各地举行的预赛，其中参加大赛决赛的学生超过 4000 名。由浙江大学伊利诺伊大学厄巴纳香槟校区联合学院 2023 级电气工程及其自动化专业本科生查皓云、吴亮亮，2023 级机械工程专业本科生郭可澄，2023 级土木工程专业本科生张蒋略组成的队伍“女娲也放俄罗斯方块”从基于 ROS 技术应用的机器人专项赛中脱颖而出，成功斩获一等奖。

ZJUI 马涵之研究员获 IEEE Herbert K. Mertel Young Professional Award

时间：2025 年 9 月 5 日
图文：受访者提供

2025 年 8 月 21 日，在美国罗利举办的 IEEE 国际电磁兼容与信号完整性 / 电源完整性会议（EMC+SIPI 2025）上，IEEE 国际电磁兼容学会举行了 2025 年度颁奖典礼。浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（ZJUI）研究员、助理教授马涵之荣获 2025 年度 Herbert K. Mertel Young Professional Award，以表彰其在高性能集成电路信号完整性建模与优化研究方面的突出贡献。

Herbert K. Mertel Young Professional Award 是全球电磁兼容领域最具权威性的奖项之一，由 IEEE 电磁兼容学会设立，旨在表彰在电磁兼容领域具有卓越潜力并做出突出贡献的青年科技工作者，该奖项每年全球仅授予一人。



第二届道路货运电气化与可持续智慧物流会议举行

时间：2025年7月15日
图文：会议组织者

近日，由浙江大学与剑桥大学联合主办，浙江省人工智能学会智能交通分会、中国自动化学会车辆控制与智能化专业委员会协办，浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（ZJUI）承办的第二届道路货运电气化与可持续智慧物流会议，在浙江大学海宁国际校区多功能厅举行。

交通运输部公路科学研究院汽运中心主任周炜，浙江省人工智能学会常务副理事长吴吉义、传拓中国（TRATON China）办公室总代表何墨池（Mats Harborn），英国皇家工程院院士、剑桥大学教授 David Cebon，同济大学电子与信息工程学院院长陈虹，浙江大学国际合作与交流处副处长艾妮，浙江大学电气工程学院教授杨强，浙江大学相关部门领导，以及来自高校、科研机构与行业的重要专家代表等出席。大会主席为新加坡工程院院士、ZJUI 院长李德纮与 ZJUI 副院长马皓，副主席为 ZJUI 研究员胡隼。

李德纮、艾妮、吴吉义分别在开幕式上致辞，对各位嘉宾的莅临表示热烈欢迎，介绍了本次会议的背景与目标，强调了道路货运电气化与可持续智慧物流在推动交通领域绿色低碳发展中的关键作用，并表达了对会议取得丰硕成果的殷切期望。

会议报告环节，交通运输部公路科学研究院汽运中心主任周炜、传拓中国（TRATON China）办公室总代表何墨池（Mats Harborn）、浙江大学电气工程学院教授杨强、剑桥大学教授 David Cebon 分别作主旨报告。

作为道路货运与智慧物流领域的重要国际学术交流平台，本次会议的成功举办不仅为推动全球交通脱碳与智慧物流发展注入新动能，也彰显了浙江大学在促进可持续发展、推动产学研深度融合中的积极引领作用。未来，ZJUI 将

继续携手国内外伙伴，推动技术进步与模式创新，共同探索更具前瞻性、可持续性的全球交通解决方案。



聚焦低空物流，打造百亿航空 + 低空立体物流的“浙江方案”

时间：2025年9月30日
图文：受访者提供

浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（ZJUI）院长李德纮院士领衔建设的两大科研平台——“综合交通一体化理论与关键技术平台”与“多式联运物流大模型浙江省工程研究中心”，长期深耕于港航多式联运物流、智慧交通、公交运力共享及低空物流等方面的技术研发领域。近日，李德纮院长带领一支由教授、博士后、研究生构成的 55 人跨学科团队，在复杂城市低空环境下的无人机起降场建设与空地一体化协同技术方面取得阶段性突破，为低空物流通用基础设施建设提供了具有落地潜力的“浙江方案”。



该团队通过自主研发的空地一体化物流网络系统，实现了无人机与地面物流设施的无缝衔接，有效提升了城市物流配送效率，为构建“航空+低空”立体物流体系提供了关键技术支撑。

中心聚焦“无人机智能起降设备 + 空地一体化物流网络”技术体系构建，提出并重点攻关四项关键技术：一是异构无人机统一接入与自主飞行控制技术（简称“统一接入”），可实现对不同厂商、不同通信栈无人机的统一感知与安全接入，保障其在复杂空域的稳定自主运行；二是无人机一体化换电仓技术（简称“二合一仓”），通过换电与换仓的协同作业，有效提升无人机地面周转效率，缩短地面作业时间；三是空地一体化物流网络动态调度技术（简称“动态调度”），创新提出适配城市多点多模式的在线调度算法，支持任务的快速响应与灵活重排；四是可扩展 4 × N 无人机起降平台设备（简称“起降设备”），采用模块化、可扩展硬件设计，既能兼容多型号无人机，又能支持并行作业，打破设备适配局限。

ZJUI 肖岩教授团队设计建造的“宁海竹楼”项目荣获中国木竹结构优质工程金奖

时间：2025年11月20日
图文：受访者提供

2025年11月20日，第十二届中国木结构产业大会暨第二届现代木竹建筑与人居产业论坛在山东蓬莱召开。会上，ZJUI 教授、浙江大学（宁海）生物质材料与碳中和建筑联合研究中心主任肖岩团队研发、设计和建造的全球最高竹结构建筑“宁海竹楼”项目荣获国内木竹结构工程领域的顶尖荣誉——中国木竹结构优质工程金奖。



“宁海竹楼”坐落于宁波市宁海县，是一栋 7 层的复合型工程竹结构多高层建筑（含 6 层标准层及 1 层阁楼），建筑总高度 20.3 米，总建筑面积约 800 平方米。该项目以复合型工程竹结构材料为主体，采用性能化设计方法、数字孪生加工理念及模块化装配施工技术，在国际上首次实现 7 层工程竹结构建筑的建造，成为目前全球最高的工程竹结构建筑。该建筑充分彰显竹材作为速生可再生资源的生态优势，为持续建筑实践树立了全新典范。

揭秘！英语写作赛场突围数千母语者的制胜之道

时间：2025年10月11日
图文：王楚希

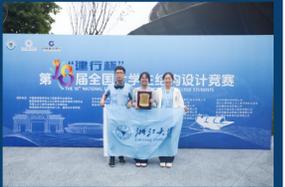
近日，UIUC 英语写作大赛成绩揭晓，ZJUI 本科生再传佳绩。ZJUI2024 级电气工程及其自动化专业本科生陆姿含、2024 级机械工程专业本科生徐浪滔分别在 UIUC 兼职教师 Ashley Barr 和 Mary Lucille Hays 的指导下，以独特的选题视角和严密的逻辑思维，在众多英语母语者的竞争中一马当先，获选为 2025 年秋冬学期 UIUC 本科生英文写作大赛获胜者（Winners）。



ZJUI 学子斩获第十八届全国大学生结构设计竞赛一等奖

时间：2025年11月5日
图文：受访者提供

10 月 15 日至 19 日，“建行杯”第十八届全国大学生结构设计竞赛隆重举办。本届竞赛以“乌篷船模型结构与制作”为主题，吸引了来自全国 31 个省（市、自治区）的 591 所高校、1792 支队伍共同参与角逐。经过激烈比拼与专家评审，由浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（以下简称“ZJUI”）2024 级土木工程专业本科生何诺语、项诗涵，与浙江大学建筑工程学院 2023 级土木工程专业本科生刘岩铭组成的“神舟队”，凭借作品“神舟号”斩获全国一等奖，并在全国总决赛中位列第八名。



该作品以江南传统乌篷船为灵感来源与设计原型，融合结构力学与流体力学原理完成创新设计。船体采用“上翘船首+纵横叠置龙骨”的独特高效结构体系，其中，上翘船首优化了入水角度，能有效降低兴波阻力；纵横叠置的龙骨结构则兼顾纵向流线型与横向稳定性，让船体在实现轻量化的同时，仍具备优异的抗倾覆与抗撞击能力。经多轮数值模拟与实物测试验证，“神舟号”在航速、稳定性与承载能力三项关键指标上均表现突出，最终赢得专家评委的一致好评。

我院研究生在 IEEE Transactions on Wireless Communication 期刊发表论文

时间：2025年11月28日
文：受访者提供

近日，浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（ZJUI）研究员、助理教授杨浩团队在面向边缘智能网络的模拟空中联邦学习领域取得一系列重要研究进展。相关成果已正式发表于无线通信领域国际顶级期刊 Institute of Electrical and Electronics Engineers (IEEE) Transactions on Wireless Communication (中科院一区, IF=10.7)。论文作者包括浙江大学 2023 级电子信息专业硕士研究生朱佳祺、通讯作者 ZJUI 研究员、助理教授杨浩，以及合作作者新加坡科技设计大学 Bikramjit Das 教授、南京邮电大学谢勇教授、瑞典林雪平大学 Nikolaos Pappas 教授。

该研究通过理论构建与实验验证，全面揭示了大规模客户端场景下空中计算联邦学习的核心优势与运行规律，为突破联邦学习通信瓶颈、提升系统性能提供了全新的技术思路与理论依据，对推动联邦学习技术的规模化落地应用具有重要意义。

我院研究生在 Laser & Photonics Reviews 期刊发表论文

时间：2025年12月5日
文：受访者提供

近日，浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（ZJUI）研究员、助理教授钱超团队在超表面智能设计领域通过引入物理感知的注意力机制，成功实现了超表面设计知识在不同频率间的鲁棒迁移。相关成果已发表于光学领域国际著名期刊 Laser & Photonics Reviews (中科院一区, IF = 10.0)。论文第一作者是浙江大学 2024 级电子信息专业硕士研究生黄灿。

本研究提出了一种融合物理实验与自适应机制的高效计算新范式，攻克了宽带超表面逆向设计中频率特异性与负迁移难题。其“物理感知”的设计理念还可拓展至太赫兹与光学波段，未来有望在智能自适应超表面、动态全息成像及无线通信等领域展现重要应用价值。

我院研究生在 IEEE 期刊发表两项研究成果

时间：2025年12月18日
文：受访者提供

近日，浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（ZJUI）副教授 Said Mikki 领衔的研究团队取得两项重要研究进展。其中，团队在宽带近场通信系统设计领域的研究成果 Neural Network Realizations of Wideband Near-Field Communication Systems: An Electromagnetic Design Approach, 已发表于国际知名期刊 IEEE Transactions on Communications。论文第一作者为胡家润，通讯作者为副教授 Said Mikki，第二作者为浙江大学博士后研究员 Thng Guo Hao。该研究通过将深度神经网络与第一性物理原理深度

融合，为宽带近场通信系统设计开辟了全新思路。研究不仅达成了高精度、实时化的近场聚焦效果，更充分展现了利用神经网络加速物理优化过程的巨大潜力，为 6G 及未来通信系统的智能化设计提供了关键参考与实践范式。

此外，团队在多项近场聚焦领域提出了一种基于无穷小偶极子表征与神经网络的方法，成功解决了真实天线阵列在互耦存在条件下的近场聚焦问题，研究成果 Multifrequency Near-Field Focusing Through Infinitesimal Dipole Models and Neural Networks 发表于国际著名期刊 IEEE Antennas and Wireless Propagation Letters，论文第一作者为胡家润，通讯作者为副教授 Said Mikki。该研究首次在数据驱动近场聚焦框架中系统性融入阵列互耦的精确建模，通过神经网络实现了对复杂物理规律的高效学习与实时推理，为多频 / 宽带近场聚焦提供了一条兼具物理精确性与工程可行性的全新技术路径，有效弥合了理想模型与实际阵列部署之间的鸿沟。

榜样的力量 | 优秀毕业生风采

王彬昊，2021 级电气工程及其自动化专业本科生。他学业成绩优异，曾多次获得浙江大学一等奖学金以及 ZJUI 学业奖学金。在学术研究方面，他以第二作者身份在 2024 年 IEEE 亚太交通电气化会议 (ITEC Asia-Pacific) 发表了题为“用于 95% 日常电动汽车充电的基础设施智能插座解决方案”的学术论文。此外，他积极参与学生工作，曾担任潮声广播社社长并获评“优秀社团负责人”，同时连续三年担任班级心理委员且每年均获评优秀。值得一提的是，他还是一名业余五段围棋选手，曾获得 2022 年浙江大学国际校区“新生杯”棋类大赛亚军。他在海外交流期间参加芝加哥城市围棋比赛，并在高段组 (5d+) 中取得第四名的好成绩。目前，他已经收获宾夕法尼亚大学、康奈尔大学、哥伦比亚大学、加州大学洛杉矶分校、新加坡国立大学、华盛顿大学、西北大学等世界名校的 Offer。他已前往加利福尼亚大学洛杉矶分校开启新的求学之旅。



金轩毅，2021 级机械工程专业本科生。他曾获评 2022-2023 学年浙江大学“学业进步标兵”、2023-2024 学年浙江大学“学业优秀标兵”等多项荣誉称号，先后斩获浙江大学二等奖学金、ZJUI 学业奖学金等荣誉。在奋发向学的同时，他也驰骋于绿茵场，摘得 2021 年国际校区新生杯足球赛“最佳新人”称号，并与团队代表浙江大学国际校区征战 2025 年浙江大学“三好杯”男子足球赛，最终斩获团体第四名的佳绩。凭借优异的学业表现与综合素质，他收获了宾夕法尼亚大学、加州大学洛杉矶分校、密歇根大学安娜堡分校、杜克大学、德克萨斯大学奥斯汀分校、卡耐基梅隆大学、布朗大学等世界名校的录取通知，最终选择赴德克萨斯大学奥斯汀分校，攻读电子与计算机工程硕士学位，继续逐梦前行。



求是新力量

杨敏，讲师
杨敏博士在德克萨斯理工大学英语系获得了技术传播与修辞学的博士学位，并在该校外语学院应用语言学方向获得第二个硕士学位。在学习期间，她教授大学写作和技术写作课程，并担任了该校写作项目助理主任的职务。杨敏博士从女性主义视角研究语音、身份和权力，并探索发展技术写作学习者跨文化沟通能力的教学方法。

林凡凡，助理教授 / 研究员
林凡凡博士于 2018 年毕业于哈尔滨工业大学电气工程专业（辅修英语语言文学），并于 2023 年获得新加坡南洋理工大学与丹麦技术大学联合培养博士学位，研究方向为电力电子与人工智能的交叉应用。在加入浙江大学之前，林博士曾在新加坡创立人工智能初创公司，在学习期间，她教授大学写作和技术写作课程，并担任了该校写作项目助理主任的职务。杨敏博士从女性主义视角研究语音、身份和权力，并探索发展技术写作学习者跨文化沟通能力的教学方法。

研究方向：写作教学，跨文化技术与专业传播，二语习得。

林凡凡，助理教授 / 研究员
林凡凡博士于 2018 年毕业于哈尔滨工业大学电气工程专业（辅修英语语言文学），并于 2023 年获得新加坡南洋理工大学与丹麦技术大学联合培养博士学位，研究方向为电力电子与人工智能的交叉应用。在加入浙江大学之前，林博士曾在新加坡创立人工智能初创公司，在学习期间，她教授大学写作和技术写作课程，并担任了该校写作项目助理主任的职务。杨敏博士从女性主义视角研究语音、身份和权力，并探索发展技术写作学习者跨文化沟通能力的教学方法。

研究方向：电力电子系统智能化设计。

我院研究生在 IEEE Transactions on Sustainable Energy 期刊发表论文

时间：2025年12月16日
文：受访者提供

浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（ZJUI）副教授刁瑞盛团队在构网型可再生能源稳定性分析与控制设计方面取得新的研究成果，近日发表于电气工程领域国际顶级期刊 Institute of Electrical and Electronics Engineers (IEEE) Transactions on Sustainable Energy (TSTE)。论文作者包括第一作者 2022 级电气工程专业博士研究生孙方圆、唯一通讯作者 ZJUI 副教授刁瑞盛，其他作者 2023 级电气工程专业硕士研究生曾睿原、浙江省电力公司张铮（ZJUI 企业合作导师）和钱建国。

由于时间尺度存在差异，传统电力系统通常将暂态功角稳定与暂态电压稳定拆分为两个独立问题分别分析。然而，在跟网型变流器中，基于锁相环的功角动态时间尺度显著快于传统电网，且与电压动态处于同一时间尺度范围，这使得功角稳定与电压稳定之间的耦合关系显著增强。在此背景下，传统上将两类稳定问题拆分分析的方法已不再适用。本研究基于跟网型变流器的控制逻辑，首次系统分析了多场景下其功角动态对短路故障后电网电压恢复的影响，为新能源大规模并网的稳定性分析提供了理论指导。

此外，团队在多项近场聚焦领域提出了一种基于无穷小偶极子表征与神经网络的方法，成功解决了真实天线阵列在互耦存在条件下的近场聚焦问题，研究成果 Multifrequency Near-Field Focusing Through Infinitesimal Dipole Models and Neural Networks 发表于国际著名期刊 IEEE Antennas and Wireless Propagation Letters，论文第一作者为胡家润，通讯作者为副教授 Said Mikki。该研究首次在数据驱动近场聚焦框架中系统性融入阵列互耦的精确建模，通过神经网络实现了对复杂物理规律的高效学习与实时推理，为多频 / 宽带近场聚焦提供了一条兼具物理精确性与工程可行性的全新技术路径，有效弥合了理想模型与实际阵列部署之间的鸿沟。

此外，团队在多项近场聚焦领域提出了一种基于无穷小偶极子表征与神经网络的方法，成功解决了真实天线阵列在互耦存在条件下的近场聚焦问题，研究成果 Multifrequency Near-Field Focusing Through Infinitesimal Dipole Models and Neural Networks 发表于国际著名期刊 IEEE Antennas and Wireless Propagation Letters，论文第一作者为胡家润，通讯作者为副教授 Said Mikki。该研究首次在数据驱动近场聚焦框架中系统性融入阵列互耦的精确建模，通过神经网络实现了对复杂物理规律的高效学习与实时推理，为多频 / 宽带近场聚焦提供了一条兼具物理精确性与工程可行性的全新技术路径，有效弥合了理想模型与实际阵列部署之间的鸿沟。

浙江大学伊利诺伊大学厄巴纳香槟校区联合学院（ZJUI）副教授刁瑞盛团队在构网型可再生能源稳定性分析与控制设计方面取得新的研究成果，近日发表于电气工程领域国际顶级期刊 Institute of Electrical and Electronics Engineers (IEEE) Transactions on Sustainable Energy (TSTE)。论文作者包括第一作者 2022 级电气工程专业博士研究生孙方圆、唯一通讯作者 ZJUI 副教授刁瑞盛，其他作者 2023 级电气工程专业硕士研究生曾睿原、浙江省电力公司张铮（ZJUI 企业合作导师）和钱建国。

由于时间尺度存在差异，传统电力系统通常将暂态功角稳定与暂态电压稳定拆分为两个独立问题分别分析。然而，在跟网型变流器中，基于锁相环的功角动态时间尺度显著快于传统电网，且与电压动态处于同一时间尺度范围，这使得功角稳定与电压稳定之间的耦合关系显著增强。在此背景下，传统上将两类稳定问题拆分分析的方法已不再适用。本研究基于跟网型变流器的控制逻辑，首次系统分析了多场景下其功角动态对短路故障后电网电压恢复的影响，为新能源大规模并网的稳定性分析提供了理论指导。

ZJUI 学子荣获 TI 杯 2025 年全国大学生电子设计竞赛二等奖

时间：2025年9月4日
文：受访者提供

近日，2025 年 TI 杯全国大学生电子设计竞赛的作品评审工作圆满结束。本届竞赛本科组共推荐全国评奖 89 个，省一等奖 27 个、省二等奖 131 个、省三等奖 223 个。其中来自 ZJUI2023 级电气工程及其自动化专业本科生池冠漳、2024 级电子与计算机工程专业本科生李响、2022 级电气工程及其自动化专业本科生顾铭之组队队伍斩获全国二等奖。



方芳，2021 级土木工程专业本科生。大学期间，方芳始终坚定在土木工程领域探索跨学科研究的无限可能，逐步确立了以智慧结构监测与合成数据驱动为核心，同时兼顾新型材料与算法的桥梁结构检测交叉研究方向。此外，作为土木与环境工程 (CEE190) 课程助教，她严谨细致、耐心指导，赢得了师生的一致好评。生活中，她秉持多元发展理念，热爱绘画、摄影、语言、手工及贝斯等多项兴趣。她曾担任浙江大学国际校区区辉 POITA 动漫美术社社团负责人，带领社员参观美术展览、开展视频教学与经验分享，搭建沟通桥梁，促进社团成员之间交流与共同成长。而在追逐梦想的道路，她更是收获了可喜的成果——申请季“十投九中”，成功收获斯坦福大学、加州大学伯克利分校、哥伦比亚大学、加州大学洛杉矶分校、密歇根大学安娜堡分校、西北大学、伊利诺伊大学厄巴纳香槟校区、佐治亚理工学院、南加州大学世界名校的录取信。目前，她已赴斯坦福大学开启新的求学旅程。

Jaden Peterson Wen，2021 级电子与计算机工程专业本科生，来自印度尼西亚。他始终步履坚定，每一步都向着清晰的方向迈进——在探索中不断突破认知边界，挖掘自身潜能，更在学术钻研与跨文化碰撞里，慢慢探寻人生的更多可能。从大三到大四的两个暑假，Jaden 主动前往海宁宏达实验学校担任志愿教师，为 200 多名学生设计互动式英语课堂。他为孩子打开了看世界的小窗口，孩子们也用热情与真诚，正在对中国的认知从书本走进了真实的生活。目前，他凭借出色的综合表现，让在清华大学深圳国际研究生院攻读数据科学硕士学位，且已获得全额奖学金。

Loigen Sodian，2021 级电气工程及其自动化专业本科生，来自印度尼西亚。他以第一作者的身份，成功将研究成果发表于 IEEE 的国际会议。学习之外，他也是 ZJUI 首位担任课程助教的国际生。他带着扎实的专业功底与温暖的辅导态度，成为了同学们攻克微积分难题的“得力帮手”。时光匆匆，转眼他已完成了电气工程及其自动化专业的本科学习，如今正在新加坡国立大学攻读物理学博士学位。

狄大卫，长聘教授 / 研究员
狄大卫，先进光学国际研究中心副主任，入选教育部人才计划 (2025)、《麻省理工科技评论》全球青年科技创新 35 人 (2019)、世界顶尖科学家论坛青年科学家 (2020)、浙江省顶尖人才计划专家 (2020)、国家青年人才计划 (2018) 等。他先后在澳大利亚新南威尔士大学和英国剑桥大学获得了光伏太阳能工程学士学位（一等荣誉学位）、光伏工程博士学位以及物理学博士学位，师从有机光电物理学权威卡文迪许物理学教授 Richard Friend 院士 (FRS, FREng, FIEE, FInstP, K0) 和太阳能电池权威 Martin Green 院士 (FRS, AM, FIEE, FAA, FTSE)。相关成果入选中国光学十大进展 (2022)、中国光学领域十大社会影响力事件 (2022)，被人民日报、中央电视台、新华社、中国科学报 (头版头条)、Nature、MIT 科技评论等广泛报道，获得国内外同行的广泛关注。

研究方向：半导体光电子学、钙钛矿与有机发光器件、半导体激光器、太阳能电池、半导体器件物理。

Loigen Sodian，2021 级电气工程及其自动化专业本科生，来自印度尼西亚。他以第一作者的身份，成功将研究成果发表于 IEEE 的国际会议。学习之外，他也是 ZJUI 首位担任课程助教的国际生。他带着扎实的专业功底与温暖的辅导态度，成为了同学们攻克微积分难题的“得力帮手”。时光匆匆，转眼他已完成了电气工程及其自动化专业的本科学习，如今正在新加坡国立大学攻读物理学博士学位。

研究方向：半导体光电子学、钙钛矿与有机发光器件、半导体激光器、太阳能电池、半导体器件物理。