International Conference on Data Science and Edge Computing

December.4-6, 2025 Changsha, China

CALL FOR PAPAERS

Introduction

With the amount of data that is being generated and the evolution in the field of Analytics, Data Science has turned out to be a necessity for organizations. To make most out of their data, organizations from all domains, be it Finance, Marketing, Retail, IT or Bank. All are looking for Data Scientists. This has led to a huge demand for Data Scientists all over the globe. To be able to deal with this data, intelligent technologies and applications are needed. As universally used and more powerful technology, edge computing has evolved to a new computing paradigm where computing tasks are completed closer to data sources rather than in a centralized location, it could provide a more efficient and secure computing platform for data science to supporting real-time analysis and intelligent decision-making. Edge computing is transforming the way data is being handled, processed, and delivered from millions of devices around the world. The explosive growth of internet-connected devices-the IoT-along with new applications that require real-time computing power, continues to drive edge-computing systems. Faster networking technologies, such as 5G wireless, are allowing for edge computing systems to accelerate the creation or support of real-time applications, such as video processing and analytics, self-driving cars, artificial intelligence and robotics, to name a few.

The International Conference on Data Science and Edge Computing (ICDSEC2025) invites researchers, practitioners, and industry leaders to submit original research papers, case studies, and visionary perspectives at the intersection of data-driven innovation and edge computing technologies. ICDSEC2025 aims to provide a forum to bring researchers, academics and practitioners together to exchange ideas and discuss the latest research results on various aspects of images, image applications and other related fields. The focus of the conference is to establish an effective platform for institutions and industries to exchange ideas and introduce the work of scientists, engineers, educators and students from all over the world. This conference is a close

integration of academia and industry. Our goal is to foster the exchange of knowledge and innovative ideas in Data Science and Edge Computing.

Topics

Data Science

- Data Exploration
- Data Modeling and Visualization
- Big Data Applications
- Data Mining
- Data-Driven AI
- Data Privacy and Security
- Data and Information Quality
- Privacy Preserving on Cloud
- Cybersecurity in Relation to Data Science
- Data-driven Value Creation
- Business Forecasting
- Business Intelligence
- Recommender Systems
- Computational Advertising
- Data Management and Quality
- Knowledge Representation and Reasoning
- Improving Data Quality
- Data Strategy and Governance
- Data Visualization
- Data wrangling
- Predictive analysis

Edge Computing

- Edge Connections
- Edge Analytics
- Edge Computing with IoT
- Edge Processing Engine
- Industry Specific Edge
- Edge Application Innovations
- 5G and Edge
- Compute continuum
- Artificial Intelligence in Edge Computing
- Deep Learning in Edge Computing
- Privacy protection in edge computing
- Software/Algorithm optimization for edge computing
- Edge computing infrastructure
- Energy efficient edge computing
- Green cloud computing
- Edge-Cloud coordinated computing
- Wireless optical communications
- Cloud-based sensor network and security issue

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PAPER PUBLICATION

All papers, both invited and contributed, will be reviewed by at least 3 experts from the committees. Accepted and presented technical papers will be published in the ICDSEC 2025 Conference Proceedings and submitted to IEEE Xplore®. The conference committee reserves the right to exclude a paper from distribution after the conference (including its removal from IEEE Explore) if the paper is not presented at the conference.

SUBMISSION METHODS

1. Submission link: https://cmt3.research.microsoft.com/ICDSEC2025
2. Any inquiry about the conference, please contact at: ICDSEC@126.com

IMPORTANT DATES

Final Submission Due:September.5, 2025

Notification of Acceptance:October.5, 2025

Final Version with Copy Right:November.5, 2025

Date of Conference:December.4-6, 2025

CONTACT US

Website: http://www.iceitsaconference.net/ICDSEC/index.asp

Email: ICDSEC@126.com

Organizers

University of Nottingham Ningbo

University Introduction

The University of Nottingham Ningbo (UNNC) was founded in 2004 with the approval of the Ministry of Education. It is the first Sino-foreign cooperative university in China that possesses an independent legal personality and independent campus, providing bachelor's, master's, and doctoral education. The number of enrolled students is nearly 10,000, and teachers and students come from more than 70 countries and regions. UNNC has been recognized as a 5-star institution by QS Stars Rating and is one of the first Chinese-foreign cooperative universities to have a national postdoctoral research station. Seven subjects were listed among the world's top academic subjects by Shanghai Ranking in 2024. Six subjects ranked within the top 1% of global rankings of Essential Science Indicators (ESI), and over 40 UNNC scholars were listed in "World's Top 2% Scientists" published by Stanford University and Elsevier.

UNNC has three faculties: the Nottingham University Business School China, the Faculty of Science and Engineering, and the Faculty of Humanities and Social Sciences. The Nottingham University Business School China has received the maximum 5-year accreditation period from the EFMD Quality Improvement System (EQUIS) and has also achieved accreditation from the Association to Advance Collegiate Schools of Business (AACSB), while less than six percent of the world's schools offering business degree programmes hold this accreditation. Twelve of the undergraduate majors from the Faculty of Science and Engineering have obtained international authoritative professional certifications. The Faculty of Humanities and Social Sciences has always been at the forefront of teaching and research and is committed to cultivating international professionals and leaders.

UNNC has established partnerships with 160 universities across over 40 countries and regions, and it is dedicated to providing expanded study abroad and exchange opportunities for students.

Data from the university's 2023 graduates indicate that nearly 30% of undergraduate graduates who chose to pursue further studies were admitted to the world's top 10 universities, and almost 80% of undergraduate graduates who were directly employed entered the world's top 500 companies or well-known Chinese and foreign companies, governments and public institutions. Approximately 92% of master's graduates were recruited by the world's top 500 companies or well-known Chinese and foreign companies, governments and public institutions. All doctoral graduates were employed with high quality, and all entered well-renowned universities, research institutions and companies.

Changsha Normal University

University Introduction

Changsha Normal University (CSNU) is a full-time undergraduate institution of higher education under the administration of the People's Government of Hunan Province. Its predecessor was Changsha Normal School, which was established in 1912 by Mr Xu Teli, Chairman Mao's teacher, a proletarian revolutionary and one of founding fathersof the educationalcause in the People's Republic of China.

CSNU boasts a long history, deep humanistic deposits and excellent teachers and students. During its more-than-100-year-long history of development, scholars and celebrities like Yang Changji, Zhu Jianfan and Zhou Gucheng havetaught here and more than 40 revolutionary martyrs such as Liu Zhixun, Luo Xuezan, Chen Zhangfu and Jiang Changqing and so forth havestudiedhere. What's more, the university has cultivated a large number of talents, outstanding representatives beingTian Han, the composer of the lyricsof the national anthem, Xu Guangda, a founding general of the People's Republic of China, Liu Ying, a heroine who completed the Long March, and Liao Mosha the renowned writer, to name but a few. As a keyplace of commemoration forXu Teli anda nationally-importantresearch base, great store has been set upon the university by the Party and government. Party and state leaders such as Hu Yaobang, Li Lanqing, Li Tieying and Liu Yandong and so on have expressed their cordial concern through inscriptions, audiences and inspections and so forth.

CSNU has been committed to educating teachersfor a hundred years and has devoted itself to training preschool teachers for more than 70 years. It constitutesthe implementation unit of the reform project of "Excellent Teacher Training Programme" granted by the Ministry of Education of the PRC, the pilot university of "Sports and Aesthetic Education Infiltration Action Programme" the implementation unit of the teacher training work for the "Children's Language Standardisation Programme" the demonstration and comprehensive reform training base of "National Training Programme of Preschool Teachers" theimplementation unit of "Ministry of Education and UNICEF Cooperation Project,"a participant in the"Collaborative Quality Improvement Programme of Normal Education," the teachers' training base in Hunan Province to build an "education power" and a practice base for the young backbone teachers and headmasters (or kindergarten principals) of basic education in the new era. In 2021, CSNUreceived approval fromthe Ministry of Education to build itself into a unit eligible to award Master's degrees.

Conditions of School Operation:CSNU possesses two campuses-one in Xingsha and one in Ansha-and covers a total campus area of 686, 600 square metres and a total built area of 373, 500 square metres. Its teaching and scientific research instruments and equipment are worth 117, 000, 000 yuan and its libraries keep more than 1, 016, 000 volumes of printed books in store. It also possesses one provincial practical teaching demonstration centre, nine school-level teaching and experimental centres, fifty-four experimental or training rooms, two outdoor sports fields and one stadium, all with complete auxiliary equipment.

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Disciplines & Specialties: CSNU has set up 28 subject specialitiesfor undergraduates, covering pedagogy, literature, natural science, engineering, fine arts and management science and possessestwo national first-class undergraduate major construction points-preschool education and physical education-10 provincial first-class undergraduate major construction points-preschool education, physical education, primary education, Chinese language and literature, English, musicology, fine arts, dance, electronic information engineering and hotel management- and three

provincial applied disciplines- pedagogy, Chinese language and literature, and fine arts. Its achievements in major construction are remarkable. The university also has 3 national first-class undergraduate courses-Preschool Language Education, Children's Dance Creation and Teaching Design of Primary School Chinese Language-3 national excellent resource-sharing courses for teachers'education - Principles of Preschool Education, Preschool Language Education and Activity Guidance, and Preschool Teachers' Language Skills-51 provincial first-class undergraduate courses, including Modern Educational Technology and Kindergarten Curriculum and so forth, and 2 provincial ideological and political demonstration courses- teaching staff of 670. Among them,287 have acquired a senior professional title and 148 possessdoctoral degrees (not including116 who are currently engaged in doctoral research). There are also senior experts and excellent teachers such as national candidates for the "New Century Talents Project," experts who enjoy special government allowances granted by the State Council, National Higher Education Steering Committee members, National Excellent Teachers, National Role Models Who Learn from Lei Feng at Their Respective Posts, candidates for the New Century 121 Talents Project in Hunan Province, Renowned Hunan Teachers, and provincial disciplinary leaders and so on.

Talent Cultivation:CSNU fully implements the Party's education policy, adheres to the socialist orientation, follows the law of higher education development, focuses on the developmentalneeds of the local economy, society and education and maintainsthe motiveof endeavouring to build itself into a "local normal university aiming at the cultivation of applied talents." The university takes moral cultivation as the foundation, teaching work as the centre and quality enhancement as the goal, and vigorously strengthens the cultivation of applied talents. Advocating that the teachers should be "role models both of scholarship and of moral conduct" and the students should "read extensively, make detailed enquiries, think deeply, distinguish clearly and practice earnestly," it has cultivated more than 200, 000 outstanding professionals who are ready to dedicate themselves to society and establish themselvesin grass-roots units. With the escalation of its social recognition and reputation, its admission line stands high among those of universities and colleges of the same level over the years. It is a "most favoured undergraduate university" and "national brand influence undergraduate university." Its graduates enjoy a high employment rate and a high probability to become a useful person. The university has been awarded honours such as Outstanding Unit of the "No. 1 Leader's Project" of Employment and Entrepreneurial Work of Colleges and Universities in Hunan Province and National "Innovation Award of Employment Work of Colleges and Universities."

Scientific Research:CSNU possesses more than ten provincial-level-or-above platforms for scientific research, for example the National Children's Sports Development Research Centre, the Hunan Provincial Preschool Education Research Centre and the Hunan Provincial Women and Children's Education Research Centre and so forth. Its Preschool Education Researchis a national Chinese core journal, an AMI core journal, a CSSCI source journal and an important source journal for the Renmin University of China to sift through and reprintthe most influential academic works therein. Since its elevation to a four-year undergraduate university in 2013, CSNU has presided over more than 2,100 scientific research projects at all levels, including projects granted by National Natural Science Foundation of China and by National Office for Philosophy and Social Science,haspublished 361 academic works and textbooks and more than 4, 100 academic papers, has won 17 provincial higher education teaching achievement awards and 6 provincial-level-or-above scientific research achievement awards and has obtained 1, 276 patents and software copyrights.

Social Service:CSNU actively serves the needs of national development strategies and local economic and social development. It is one of the four universities designated by the Ministry of Education to support the Lijiang Teachers College in Yunnan Province.It undertakes 70% of the national tasks for the training of kindergarten teachers in Hunan and carries out a series of special training projects entrusted by Gansu, Jilin, Xinjiang, Tibetand other provinces. It has been selected by the Ministry of Education as the research and development unit of curriculum training standards for kindergarten teachers and a participantinthe 2021-2025 training management and

curriculum development project for kindergarten teacher training institutions.It takes the lead in implementing the poverty alleviation programmes such as the government-funded undergraduate training of preschool education teachers and the government-funded targeted training of rural primary school teachers. It is a typical unit forpoverty alleviation through education in Hunan. The university cooperatescloselywith the provincial and local governments, enterprises and other universities, colleges and schools and conducts strategic cooperation with the China National Children's Centre, Hunan Normal University, Xiangtan University andtheChina South Publishing & Media Group, etc. It has been selected as a member of the Innovative Development Alliance between Changsha City and Universities (Scientific Research Institutes) andwasentrusted by the Department of Education to build a monitoring and evaluation platform for preschool education quality and by the Provincial Health Commission of Hunan to build a training base for kindergarten principals and teachers. It actively carries out the pilot reform of the comprehensivecoordination system and mechanism between schools, local governments and kindergartens in Hunan Province and presides over key research projects such as the experimental "Guide to Learning and Development for Children Aged 3-6." The university has made positive contributions to local economic and social development and to the balanced development of urban and rural education.

Cultural Inheritance and Innovation:CSNU carries on the century-long Red tradition and insists on building the spiritual highland to "fly its own colours." It is home toa large number of cultural inheritance and innovation platforms, such as the Advanced Model Studio granted by the Office of the Spiritual Civilization Development Steering Commission, the Online Cultural Studio of College Students granted by the Ministry of Education, the Hunan Patriotism Education Base, the Hunan Youth Education Base, etc. It has created a batch of works influential throughout the country, for example, Ode to Xu Teli, The Master, Marching Forward!, The Song of Tian Hanand The Indomitable Veteran-Xu Teliand so on. They are hailed by the media as a sequel to the "great ideological and political course that spans one hundred years on how to nurture the Red successors."

International Exchanges：CSNU espousesopen education and advocates an international vision. It has established friendly cooperative relations with more than 20 universities or institutions in the United States, Britain, South Korea and Pakistan and implemented programmes such as teacher exchange, paid summer internship, long- or short-term study abroad and so on.

Its outstanding achievements are greatly valued by the higher authorities and widely praised by all walks of life in the society. Leaders such as Xu Dazhe, Ulan, Zhu Guoxian, Wu Guiying, Xie Weijiang, He Baoxiang and Qin Guowen and so on have visited the university in succession to make inspections and give instructions or listen to its reports specially. The university has been awarded honours such as the National Advanced Collective in the Education System, the National Advanced Unit of School Art Education, the Best Education Institution Finalist Award of the Chinese Culture and Art Government Award, and the Civilized University in Hunan Province and so on. The Ministry of Education commented that CSNU "has won a good social reputation by serving the preschool education in a comprehensive manner and cultivating high-quality preschool education talents in an all-round way." The CPC Committee and People's Government of Hunan Province remarked that CSNU "holds high the banner of preschool normal education and makes positive contributions to the economic and social development of the province, especially to the development of the education cause."

The tide rises and it looks expansive between the riverbanks. The wind is favourable and gentle and the sail is hoisted high. In line with the school motto of "remain virtuous, study extensively, fly our own colours and practise earnestly" and the school spirit of "put people first, take the entire world into consideration, stay diligent, plain and resolute and keep up with the times," CSNU is building a local high-level applied undergraduate normal university with distinctive characteristics and certain influences both at home and abroad.

Hunan university of Arts and Science

University Introduction

Hunan University of Arts and Science (HUAS) is a full-time undergraduate institution sponsored by the People's Government of Hunan Province. Located in the city of Changde, known as the "City in the Peach Blossom Land," the university traces its origins back to Changde Normal Junior College, founded in 1958 and recognized as a National Excellent Normal College in 1988. Over the years, it has integrated the educational resources and academic strengths of Changde Higher College, Changde Branch of Hunan Agricultural College, Changde Education College, Changde Art School, and Changde Urban and Rural Construction Vocational Technical School. In 1999, it was upgraded to Changde Normal University, renamed to its current name in 2003, and in 2020, it was included in the first batch of undergraduate admission institutions in Hunan Province. In 2024, it was approved as a master's degree-granting institution. With its distinct strengths in teacher education and agricultural sciences, HUAS is renowned as the "Cradle of Teachers" and the "Intellectual Hub for Agriculture" in Northwestern Hunan.

HUAS has been recognized for its excellence in education and research, securing numerous prestigious accolades. It has been approved as a national "Industry-Education Integration Engineering Application-Oriented Undergraduate Planning University," a high-level applied specialty college under Hunan Province's "Double First-Class" initiative, a National Model Workers' Home, a Hunan Province Civilized Model Unit, a pilot university for comprehensive reform of the "Three-All Education" initiative in Hunan, and an advanced university in modern university system construction in Hunan. Additionally, the university has received three national-level honors for Party building, including the "Benchmark Departments and Exemplary Party Branches" designation, and has been selected for a national special action initiative for university Party branch secretaries under the "Double-Headed Leader" model.

HUAS continuously improves its infrastructure and is committed to building a beautiful campus. The university covers an area of over 2,000 acres, with a total building area of 837,400 square meters, including 450,400 square meters of teaching and administrative buildings, and 179,600 square meters of laboratories and practice facilities. The total value of its equipment exceeds 378 million yuan. The library houses over 2.69 million printed books and nearly 3.17 million electronic books. HUAS comprises 18 teaching colleges and one research institute, offering 63 undergraduate programs across 11 disciplines, including economics, management, law, education, literature, history, arts, science, engineering, agriculture, and medicine. The university enrolls students from 31 provinces, municipalities, and autonomous regions, with a full-time undergraduate student population of 24,035.

HUAS implements a robust talent development strategy, continuously enhancing its faculty quality. The university has 1,588 faculty and staff members, including 1,287 full-time teachers, 125 professors, and 507 Ph.D. holders. It also has three external academicians. More than 90 faculty members have been selected for national and provincial talent programs, including National Outstanding Youth Scientists, recipients of the State Council Special Allowance, Furong Scholars, and Furong Teaching Masters. The university has one national-level teaching team and ten provincial-level teaching and research teams. Additionally, it boasts one national teaching advisory committee vice-chairperson and two provincial teaching advisory committee vice-chairpersons.

HUAS is committed to its fundamental mission of cultivating talents with strong moral and intellectual foundations. It has been designated as an Innovation Center for Ideological and Political Work in Hunan Universities and a Demonstration Center for Course-Based Moral Education. In recent years, the university has been awarded one national-level "New Humanities" project and five provincial-level "Four New" projects. It has received 23 provincial teaching achievement awards, including three first prizes, and has been approved for over 300 provincial-level teaching reform projects. The university currently has 24 national and provincial-level first-class undergraduate program construction sites, 68 first-class undergraduate courses, and seven exemplary courses in ideological and political education. It has also been recognized as a National Model University for Graduate

Employment, a National Advanced Unit for Entrepreneurship Education Research and Practice, and a National Model University for Innovation and Entrepreneurship Education Reform. HUAS has received the "Outstanding Employment Project" award for Hunan universities seven consecutive times.

HUAS actively engages in scientific research, emphasizing technological innovation and platform development. In recent years, the university has undertaken over 100 national research projects, including major commissioned projects under the National Social Science Fund. It has published more than 5,000 high-level research papers, authored over 300 academic books, and received 28 provincial and higher-level research awards, including one National Social Science Award and two first prizes at the provincial level. HUAS holds over 1,500 intellectual property rights, including patents. It has established eight national teaching and research platforms, two provincial "2011" collaborative innovation centers, eight provincial key laboratories, three provincial engineering technology research centers, five provincial engineering research centers, 13 provincial social science research bases, and more than 100 other provincial-level teaching and research platforms.

Firmly rooted in the Wuling region, HUAS is committed to serving the "Three Highs and Four New" development strategy. The university strategically fosters new productive forces based on regional needs, pioneering the discipline and professional development of synthetic biology. It is actively developing the Hunan Changde Synthetic Bio-Manufacturing Innovation Center, as well as synthetic biology-related research institutes and industry-oriented colleges. HUAS has strengthened collaborations with local governments and enterprises, launching the "Professors and Ph.Ds in Yuanli" initiative, which has had a significant impact. The university has signed strategic cooperation agreements with over 500 enterprises, undertaken more than 1,000 commissioned projects, and provided critical intellectual support for government decision-making and business technology solutions.

HUAS actively promotes cultural heritage and innovation, deeply engaging in local historical and cultural research. The university is a National College Student Cultural Quality Education Base and has established the "Northwest Hunan Cultural Center" with distinctive regional characteristics. It has conducted extensive research on the atrocities committed during the Japanese bacteriological warfare invasion, with its findings and historical materials included in the Hunan Revolutionary Military Museum. The university's Japanese Bacteriological Warfare Historical Exhibition Hall has been designated a National Defense Education Demonstration Base. Additionally, its signature cultural brand, "Wuling Charm," has won 22 national and provincial first prizes in university student art exhibitions and was awarded the National First Prize for Outstanding Campus Cultural Achievements.

HUAS adheres to an open educational philosophy and actively promotes international exchanges and cooperation. The university has established partnerships with more than 70 universities in 20 countries and regions, including the United States, the United Kingdom, Germany, and Japan. It has received approval from the Ministry of Education for four Sino-foreign cooperative education programs. Since 2004, HUAS has admitted over 400 international students from 35 countries.

As it embarks on a new journey, HUAS remains steadfast in its mission to cultivate talents for the Party and the nation, guided by Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era. Adhering to its motto of "Extensive Learning, Literary Excellence, Rationality, and Truth-Seeking," the university is steadily advancing toward its goal of becoming a distinctive, first-class applied university in China.