Nomination for Prof. Jiping Liu for Vice President of ICA Executive Committee for 2023–2027

ICA Executive Committee,

On behalf of the Chinese Society for Geodesy, Photogrammetry and Cartography (CSGPC), I am pleased to nominate Prof. Jiping Liu as the candidate of Vice President of the ICA Executive Committee for the period of 2023–2027. Prof. Liu is a professor of Cartography and GIS, and vice president at Chinese Academy of Surveying and Mapping (CASM). He received his BSc. and MSc. degrees in Cartography and GIS from Wuhan Technical University of Surveying and Mapping, China, in 1989 and 1992, respectively. In 2004, he obtained his PhD in Cartography and GIS at the PLA Information Engineering University, and as a postdoctoral scholar in
Tsinghua University from 2005 to 2008. He has worked at CASM since 2008. During the time period in CASM, he has been in charge of many national-level projects on Cartography, GIS and Emergency Disaster Management (EDM) applications such as Key Technology and Equipment of Emergency Communication, and Application of Integrated Intelligent Service for Disaster Reduction (National Key R&D Program of China), as well as Platform of Remote Sensing Information Integration and Aided Decision Making (National High-tech R&D Program). Prof. Liu has made significant contributions to promote Cartography, GIS and EDM applications through original research, publications, application developments, and services to the profession and societies.

Prof. Liu has continuously and actively participated in ICA activities since 2003, and has much experience on dealing with ICA commission affairs. He served as vice-chair of ICA Commission on Cartography in Early Warning and Crisis Management (CEW&CM) during 2015-2019 and the chairman of CEW&CM during 2019-2023. During his serving terms, numerous international seminars and training courses have been successfully organized such as "Workshop on Capacity Building of Emergency Mapping Support in Asian Region" in Kunming of China and "Mitigation and Risk Reduction for Cartography in Big Data Era" in Haikou of China. During the COVID-19, he also had organized a number of virtual international pre-conference workshops such as workshop at ICC2021 in Italy, EuroCarto2022 in Vienna and ICCGIS2022 in Bulgaria. Furthermore, Prof Milan Konecny and Prof. Menno-Jan Kraak, Former President of ICA, and Prof. Philippe De Maeyer, Vice President of ICA had been invited to attend the activities of international academic exchanges and ICA affairs discussions in China. With almost 20 years'
services to ICA at different levels and positions, he is very familiar with ICA Statutes/Bylaws and the process of operations.

Prof. Jiping Liu is also very active in the Chinese Society. Currently he is the Executive Director of China Geographic Information Industry Association, Executive Director of Chinese Society of Surveying and Mapping, the president of Information Network Branch and Director of the E-government Information Commission of China Association for Geographic Information Society. He is also a Guest Professor in Wuhan University, Henan University, Southwest Jiaotong University, etc.

We will support Prof. LIU to lead ICA as Vice President if he is elected at the General Assembly this year. CSGPC, as a national member, will work closely with ICA to fulfill its obligations.

Sincerely yours,

Zhenzhong Peng

Vice President and Secretary General

Chinese Society for Geodesy Photogrammetry and Cartography

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Declaration, confirmation of willingness to serve as Vice-President of ICA and abide by the Statutes and by-laws

To ICA Executive Committee,

I hereby confirm that I am willing to be nominated to the Vice-President position of the ICA by the China national member to ICA (Chinese Society for Geodesy, Photogrammetry and Cartography, CSGPC) and to serve in this function as member of the ICA Executive Committee in upcoming term 2023-2027. With my continuous services to ICA as the vice-chair and chair of Commission on Cartography in Early Warning and Crisis Management (CEW&CM) during the period of 2015-2023, I have studied the ICA Statutes and By-laws extensively.

My research interests aim at emergency geographic information service, geospatial big data analysis in big data Era, E-government geographic information service, online geographic information monitoring and spatial decision making, and gained many national academic titles such as “Technological Innovative Leading Talent” and Young Leading Talent of “Innovative Talent Promotion Program”. Over the past 20 years, I have been granted the second award of scientific and technological progress twice in National level, and 11 times of the first award in State level. I published five books, more than one hundred SCI/EI papers in total and carried out a number of national and provincial scientific research projects related to Cartography, GIS and Emergency Disaster Management (EDM). Besides serving ICA CEW&CM, I have rich experience in international academic exchanges as the Director of National Network of Surveying and Mapping Information Branch of Chinese Society for Surveying Mapping and Geoinformation and Director of the E-government Information Commission of China Association for Geographic Information Society.
If having the opportunity to serve as a Vice President of ICA for 2023–2027, I confirm that I will be able to spend more time on it, and make lasting contributions to ICA. Furthermore, some commitments will be made as bellows:

- Build a cartographic technical training Center in China for the developing countries, in order to provide full-coverage Data Sharing, Tech Support, and Decision Making.
- Establish an Asia network with the support of other Asian countries, to inspire more organizations to participate in ICA activities.
- Encourage many software companies in China to release popular GIS software for FREE to ALL ICA members.
- Actively participate in the construction and co-organizing of the annual International Forum on Cartography and Big Data as well as any other events or activities.
- Organize Cartography and GIS-related international summer schools for the younger students all over the world.

I look forward to serving as a Vice President of ICA and fulfill all my commitments.

Sincerely,

Jiping Liu
Chair, CEW&CM
CURRICULUM VITAE

Personal Information
♦ Date of birth: 22. December, 1967
♦ Gender : Male
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♦ Email : liujp@casm.ac.cn
♦ Address: 28 Lianhuachi West Road, Haidian District, Beijing

Biography
Jiping Liu, PhD supervisor, National high-level scientific and technological innovation talent, young and middle-aged leading talent of "Innovative Talent Promotion Program" , the national-level person selected of "Hundreds, Thousands and Ten-thousands of Talents Project In New Century" , chairman of the International Cartographic Association Commission On Cartography in Early Warning and Crises Management (ICA CEW&CM).

Jiping Liu presided over the completion of research and application demonstration in integrated comprehensive disaster reduction intelligent services , project of national-level information resource integration and utilization, service platform(phase one) of national government, data resource sharing project & big data analysis system and many other national scientific research or engineering projects, formulated government service integration, big data Analyze model standards, presided over the completion of the independent R&D, promotion and application of the five-generation government geographic information service platform, won 2 second-class national scientific and technological progress awards, provincial and ministerial-level scientific and technological progress special/first-class 11 items, published "Government-oriented decision-making geospatial “Data Technology and Practice” and other 5 books, published more than 100 SCI/EI research papers, obtained more than 10 patents and standards.

The main outcomes related to the application project: the key technology of national e-government collaborative spatial decision service (2016 Second Prize of National Science and Technology Progress Award), the key technology of e-government geographic information active service for comprehensive decision-making, Internet geospatial information detection and early warning technology (2015, 2018 Chinese Society of Surveying and Mapping Science and Technology Progress Special Award), based on semantic similarity Geographic element query expansion method, a semantic matching method based on concept lattice-based heterogeneous spatial information service classification, and a multi-network collaborative work method for monitoring spatial dynamic elements (the authorized patent).
Research Interests

- The theoretical and technical research on e-government spatial decision
- Spatial assistant decision-making services
- Spatial big-data analysis
- Software development of GIS
- Emergency geographic information service and mapping

Education

- Studies at Department of Cartography, Wuhan Technical University of Surveying and Mapping (WTUSM, 1985-1989)
- Degree of Msc in Computer Aided Cartography, Wuhan Technical University of Surveying and Mapping (WTUSM, 1989-1992)
- Degree of PhD in Cartography and GIS, Zhengzhou Insitute of Surveying and Mapping (1999-2004)
- Post doctor in Tsinghua University (2005-2008)

Professional Positions

- 2010-present Vice President, Professor, Chinese Academy of Surveying and Mapping
- 1998-2010 Professor, Director of Government Geographic Information System Research Center, Chinese Academy of Surveying and Mapping
- 1994-1998 Associate professor, Deputy Director of Institute of Geographic Information System and Map Engineering, Chinese Academy of Surveying and Mapping
- 1992-1994 Assistant professor, Chinese Academy of Surveying and Mapping

Research Experiences

- Doctoral supervisor, more than 17-year supervision of master’s thesis and 11-year of PhD dissertation
- National and Provincial scientific research projects undertaken as PI:
  - *National key research and development plan project, key technology and equipment of emergency rescue communication command with sky and earth integration (2022YFC3005700)*, responsible for the top-level design of the project, research on emergency command and communication, disaster monitoring and discrimination, disaster situation evolution, and in charge of the research and development and demonstration application of holographic real combat command platform, 2022-2025
  - *National key research and development Plan project, research and Application demonstration of integrated intelligent service for Disaster Reduction (2016YFC0803100)*, responsible for top-level design of the project, research on emergency big data analysis, emergency intelligent service, and technical standards for integrated and comprehensive disaster reduction, 2016-2020
  - *National major projects, Basic Statistical analysis of Geographical conditions Monitoring*, responsible for the overall design of basic statistical analysis of national geographic conditions information, 2015-2020
• Research Project of Surveying and Mapping Geographic information public welfare industry, geospatial Big data analysis service for government decision-making (201512032), responsible for the overall design of the project, research on big data service of government affairs, and preside over monographs on big data service of government affairs, 2015-2016
• Construction and application of map review information business system, project leader, responsible for overall project planning and research on geographic information security technology, 2014-2016

Main Projects undertaken as PI:
• Research on Detection, Forecasting and Early Warning of Network Geographic Information, from National High-tech R&D Program of China (863 Program), 2012-2015
• Multi-scale Data Organization and Management of 3D Moving Objects based on Improved MOST, from National Natural Science Foundation of China, 2010-2012
• Spatial Statistical Model about the Layout and Developmental Difference of Chinese Cities, from National Natural Science Foundation of China, 2010-2012
• Platform of Remote Sensing Information Integration and Assistant Decision making, from National High-tech R&D Program of China (863 Program), 2009-2010
• Ontology Driven Geographic Information Retrieval and Service, from National High-tech R&D Program of China (863 Program), 2007-2010
• Application Demonstration of E-government Spatial Assistant Decision Making, from The National Basic Surveying and Mapping Project, 2006-2010
• Key Technologies and Application of Emergency Geographic Information Platform Architecture, from National Science & Technology Pillar Program, 2007-2008
• Construction of Public Emergency Geographic Information Service Platform, from The National Basic Surveying and Mapping Project, 2007-2008

Publications
♦ Academic Journals


36. GUO Qingsheng, XIE Yuwu, LIU Jiping, WANG Lin, ZHOU Lin. algorithms for
Road Networks Matching Considering Scale Variation and Data Update[J]. Acta Geodaetica et Cartographica Sinica, 2017, 46(3): 381-388


51. Liu Jiping, Zhang Jianbo, Wang Yong, Semantic Mapping of Spatial Features from Charts and Topographic Maps Based on Domain Ontology, Geomatics and information Science


♦ Monograph
2. Liu Jiping, Zhang Fuhao, Qiu Agen et al. Geospatial Big Data Technologies and
Applications for Government Decision-making[M]. Surveying and Mapping Press, 2019

♦ Patents
1. Dong Chun, Yu Haoyang, Liu Jiping, Su Bin, Yang Zhen. Automatic extraction of roadside trees based on geographic data and image classification. (CN202210128588.3)
2. Che Xiang Hong, Sun Qing, Liu Jiping, Wang Yong, Xu Shenghua, Loan, Du Kaixuan. Spatio-temporal fusion method of normalized vegetation index data based on different spatio-temporal resolution. (CN202210079071.X)
3. Che Xiang Hong; Sun Qing; Liu Jiping; Wang Yong; Xu Shenghua; Luo An; Du Kaixuan. Downscaling method of Surface evapotranspiration data based on multi-source data and deep learning. (CN202111046481.6)
4. Che Xiang Hong; Sun Qing; Liu Jiping; Wang Yong; Xu Shenghua; Luo An; Hui-hui Liu. A vegetation phenology extraction method based on high spatio-temporal resolution remote sensing data. (CN202111018642.0)
5. Kang Xiao Chen; Liu Jiping; Kang scenery; Dong Chun; Yang yi. Pattern spot change trajectory extraction method and system for earth surface coverage data. (CN:202110551852:A)
6. He Wangjun; Liu Jiping; Zhang Fuhao; Qiu Agen; Shi Lihong. Geographic grid-based government affair information resource integration method. (CN:201710264026:A)
7. Wang Zhonghui; Xu Zhibang; Yan Haowen; Wu Fang; Sun Li; Lu Xiaomin; Liu Jiping; Du Shihong. Cooperated POI data path selection method. (CN:201710394039:A)
8. Yan Haowen; Lu Xiaomin; Wang Zhonghui; Wu Fang; Liu Jiping. Point group target automatic-synthesis algorithm under support of big data. (CN:201711048489:A)
9. Zhang Liming; Lu Wenqing; Yan Haowen; Liu Jiping. Copyright protection method for digital fingerprint of vector map based on I codes and CFF codes. (CN:201710582789:A)
10. Liu Jiping; Luo An; Wang Yong; Cai Di. Deep web space data acquisition method and apparatus. (CN:201510438103:A)
11. Sun Lijian; Liu Haochen; Liu Jiping; Guo Qingsheng; Zhao Rong; Dong Chun; Xu Shenghua; Sun Zhen; Su Dede; Wang Hua; Xu Yongmin. Map making rule construction and structured organization method and system thereof (CN:201510229676:A)
12. Liu Jiping; Luo An; Wang Yong; Wang Keyong. Place name and address extraction method and apparatus. (CN:201510437893:A)
14. Luo An; Liu Jiping; Wang Yong; Zhang Fuhao; Wang Liang; Dong Chun. Semanteme based geographical label content safe checking method and device. (CN:201410241021:A)
Honors and Awards

- Honors

1. National high-level scientific and technological innovation talent
2. Young and middle-aged leading talent of "Innovative Talent Promotion Program"
3. The national-level person selected of "Hundreds, Thousands and Ten-thousands of Talents Project In New Century"
4. The 10th China Youth Science and Technology Award

- Awards

1. The First National Geographic Conditions Survey Atlas, 2020, Pei Xiu Gold Award of National Excellent map Works, National level, ranked the first
2. Key Technologies of National e-government Collaborative Space Decision-making Service, 2016, Second Prize of National Science and Technology Progress Award, National level, ranked the first
3. National Mesoscale Geo-information Engineering and Spatial Assistant Decision Making, 2002, Second Prize of National Science and Technology Progress Award, National level, ranked the forth
4. Internet Geospatial Information Detection, Discovery and Early Warning Technology, 2018, Surveying and mapping Technology Progress Grand Prize, provincial and ministerial level, ranked the first
5. Key Technologies of e-government Geographic Information Active Service oriented to comprehensive decision-making, 2015, Surveying and mapping Technology Progress Grand Prize, provincial and ministerial level, ranked the first
6. Research and Application of Key Technologies for Perception of Urban Infrastructure Risks, Spatiotemporal Fusion, and Dynamic Evaluation, 2022, Special Prize of China Business Federation Science and Technology Award, provincial and ministerial level, ranked the second
7. Key Technology of National important geographical situation Monitoring and Analysis, 2017, Special Prize of Geographic Information Technology Progress Award, provincial and ministerial level, ranked the second
8. Theoretical innovation and technology application of digital mapping in the era of all-media, 2022, Special Prize of Geographic Information Technology Progress Award, provincial and ministerial level, ranked the forth
9. Demonstration of mapping assurance for spatially assisted decision making in e-government, 2013, First Prize of Surveying and Mapping Science and Technology Progress, Provincial and ministerial level, ranked the first
10. Geographic information platform construction for public emergency services, 2011, First Prize of Surveying and Mapping Science and Technology Progress, Provincial and ministerial level, ranked the first
11. Research and Application of Key Technologies for geomorphic Type Classification and Precise Division, 2017, First Prize of Surveying and Mapping Science and Technology Progress, Provincial and ministerial level, ranked the third
12. Key Technologies and Applications of the National Western Mapping Project, 2013,
Surveying and mapping Technology Progress Grand Prize, provincial and ministerial level, ranked the tenth

**Social Service**

- Member of Commission on Theoretical Cartography, International Cartographic Association, 2011-2015
- Director of the E-government Information Commission of China Association for Geographic Information Society, 2008-2016
- Chairman, ICA Commission on Cartography in Early Warning and Crisis Management, 2019-2023
- Special Researcher of Henan Province, 2018-2023
- Chairman, Real 3D Commission of Chinese Society for Geodesy, Photogrammetry and Cartography, 2022-2026
- Vice Chairman, Software Commission of China Geographic Information Industry Association, 2022-2026