Xinqiang Chen

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Education Background & Work

1. 2025.7- Now Shanghai Maritime University *Institute of logistics science & engineering* **Professor, Ph.D Supervisor**
2. 2022.7- 2025.6 Shanghai Maritime University *Institute of logistics science & engineering* **Associate Professor, Ph.D Supervisor**
3. 2018.9- 2022.6 Shanghai Maritime University *Institute of logistics science & engineering* **Assistant Professor**
4. 2020.05-2022.12 Fudan University *Department of Atmospheric* and *Oceanic Sciences* **Research Associate**
5. 2022.9-2023.07 Tongji University, *College of Traffic and Transportation* **Visiting Scholar**
6. 2013.9-2018.6 Shanghai Maritime University *Traffic Information Engineering* Ph.D.
7. **2015.9-2016.9 University of Washington *Traffic Engineering* Visiting Ph.D.**
8. 2010.9-2012.7 Shanghai Maritime University *Traffic Information Engineering* Master

Research Interests

1. Video data - driven intelligent transportation environment perception and understanding
2. Visual navigation for unmanned vehicle under unmanned port, smart shipping
3. Large-scale transportation data analysis (traffic flow data, AIS, etc.)
4. Traffic Safety
5. Connected Vehicle
6. Smart Ship/Autonomous port
7. Maritime traffic Management

Overview

My research topics involve with smart ship navigation, automated terminal-oriented visual navigation, transportation big data mining, intelligent traffic video understanding, computer vision, etc. I serve as **associate editor** for several journals such as IET Intelligent Transportation Systems (SCI, JCR Q3), Measurement & Control (SCI, JCR Q3), and International Journal of Advanced Robotic Systems (SCI), Discover Applied Sciences (EI, ESCI). I also serve as editorial board member for Journal of Marine Science and Engineering (SCI, JCR Q1), Sustainability (SCI), and Transportation Safety and Environment (EI, ESCI), etc. I have published over 100 high-quality papers in the

fields of transportation, shipping, and logistics. I have authored for more than 21 ESI/hot papers. I am also named a Top 2% Highly-Cited Scientist in the 2022, 2024 and 2025 (published by Standford University and Elsevier). I serve as PI for more than 10 projects funded by National Natural Science Foundation of China (NSFC), etc.

Selected Publications (* represents the corresponding author)

1.**Xinqiang Chen,** Chenxin Wei, Yang Yang, Lijuan Luo, Salvatore Antonio Biancardo, Xiaojun Mei (2024)**.** " *Personnel trajectory extraction from port-like videos under varied rainy interferences*" IEEE Transactions on Intelligent Transportation Systems, 25(7): 6567-6579. (**SCI，ESI，Q1**)

2.**Xinqiang Chen**, Zichuang Wang, Qiaozhi Hua, Wen-long Shang, Qiang Luo, Keping Yu (2023). "*AI-Empowered Speed Extraction via Port-like Videos for Vehicular Trajectory Analysis*" IEEE Transactions on Intelligent Transportation Systems, 24(4): 4541-4552. **(SCI, ESI,Q1).**

3.**Xinqiang Chen**, Zhibin Li, Yongsheng Yang, Lei Qi, Ruimin Ke (2021). "*High-Resolution Vehicle Trajectory Extraction and Denoising From Aerial Videos*" IEEE Transactions on Intelligent Transportation Systems, 22(5): 3190-3202. **(SCI,ESI，Hot paper，Q1).**

4.**Xinqiang Chen**, Fei Ma, Yuzheng Wu,Bing Han, Lijuan Luo, Salvatore Antonio Biancardo. (2025)."*MFMDepth: MetaFormer-based monocular metric depth estimation for distance measurement in ports* " Computers & Industrial Engineering,Vol.207, September 2025,111325. **(SCI,Q1, ESI hot paper).**

5.**Xinqiang Chen**, Ruiyang Hu, Kai Luo, Huafeng Wu*, Salvatore Antonio Biancardo, Yiwen Zheng, Jiangfeng Xian* (2025). *"Intelligent Ship route planning via an A* search model enhanced double-deep Q-Network*" Ocean Engineering, 327(2025), 1-13 **(SCI, ESI, Q1).**

6.**Xinqiang Chen**, Weiping Chen, Bing Wu*, Huafeng Wu, Jiangfeng Xian (2024). " *Ship visual trajectory exploitation via an ensemble instance segmentation framework* " Ocean Engineering, 313(2024), 119368 **(SCI，ESI/Hot paper,Q1).**

7.**Xinqiang Chen**, Shuhao Liu, Jiansen Zhao, Huafeng Wu*, Jiangfeng Xian, Jakub Montewka. "*Autonomous port management based AGV path planning and optimization via an ensemble reinforcement learning framework* " Ocean & Coastal Management, 251(2024):107087 **(SCI, ESI/Hot paper,Q1).**

8.**Xinqiang Chen**, Siying Lv, Wen-long Shang*, Huafeng Wu, Jiangfeng Xian, Chengcheng Song, "S*hip energy consumption analysis and carbon emission exploitation via spatial-temporal maritime data*" Applied Energy, 2024, 360: 122886 **(SCI, ESI,Q1).**

9.**Xinqiang Chen**, Meiling Wang, Jun Ling, Huafeng Wu, Bing Wu*, Chaofeng Li. "*Ship imaging trajectory extraction via an aggregated you only look once (YOLO) model*"

Engineering Applications of Artificial Intelligence, 130(2024): 1-9 **(SCI, ESI Hot paper,Q1).**

10. **Xinqiang Chen**, Shuting Dou, Tianqi Song, Huafeng Wu, Yang Sun*, Jiangfeng Xian, (2024). "*Spatial-Temporal Ship Pollution Distribution Exploitation and Harbor Environmental Impact Analysis via Large-Scale AIS Data*". Journal of Marine Science and Engineering, 12(6): 1-17 **(SCI，ESI,Q2).**

11. **Xinqiang Chen**, Dongfang Ma, Wen Ryan Liu, (2024). "*Application of Artificial Intelligence in Maritime Transportation*". Journal of Marine Science and Engineering 12(3): 439 **(SCI，ESI,Q2).**

12. **Xinqiang Chen**, Hao Wu, Bing Han, Wei Liu, Jakub Montewka, Ryan Wen Liu* (2023). "*Orientation-aware ship detection via a rotation feature decoupling supported deep learning approach*" Engineering Applications of Artificial Intelligence, 125(2023), 1-16 **(SCI, ESI,Q1).**

13. **Xinqiang Chen,** Jinbiao Zheng, Chaofeng Li, Bing Wu*, Huafeng Wu, Jakub Montewka (2024). " *Maritime traffic situation awareness analysis via high-fidelity ship imaging trajectory* " Multimedia tools and applications, (2024)83:48907-48923 **(SCI, ESI Hot paper,Q2).**

14. **Xinqiang Chen**, Shuhao Liu, Wen Liu, Huafeng Wu*, Bing Han, Jiansen Zhao. (2022)"*Quantifying Arctic oil spilling event risk by integrating analytic network process and fuzzy comprehensive evaluation model*" Ocean & Coastal Management, 228: 106326. **(SCI, ES,Q1).**

15. **Xinqiang Chen**, Jun Ling, Shengzheng Wang, Yongsheng Yang, Lijuan Luo, Ying Yan (2021). "*Ship Detection from Coastal Surveillance Videos via an Ensemble Canny-Gaussian-Morphology Framework*" Journal of Navigation, 74(6): 1252-1266. **(SCI, Hot paper,Q2).**

16. **Xinqiang Chen,** Huixing Chen, Yongsheng Yang, Huafeng Wu, Wenhui Zhang, Jiansen Zhao, Yong Xiong (2021). "*Traffic flow prediction by an ensemble framework with data denoising and deep learning model*" Physica A: Statistical Mechanics and its Applications, 565(2021), 1-11. **(SCI, ESI,Q2).**

17. **Xinqiang Chen**, Yongsheng Yang, Shengzheng Wang, Huafeng Wu, Jinjun Tang, Jiansen Zhao, Zhihuan Wang (2020). "*Ship Type Recognition via a Coarse-to-Fine Cascaded Convolution Neural Network*", Journal of Navigation, 73(4), 813-832. **(SCI, ESI,Q2).**

18. **Xinqiang Chen**, Lei Qi, Yongsheng Yang, Qiang Luo, Octavian Postolache, Jinjun Tang, Huafeng Wu (2020). "*Video-Based Detection Infrastructure Enhancement for Automated Ship Recognition and Behavior Analysis*", Journal of Advanced Transportation, 2020, 1-12. **(SCI, ESI,Q3).**

19. **Xinqiang Chen**, Xueqian Xu, Yongsheng Yang, Huafeng Wu, Jinjun Tang, Jiansen Zhao (2020). "*Augmented Ship* Tracking *under Occlusion Conditions From Maritime Surveillance Videos*" IEEE ACCESS, 8(1), 42884-42897. **(SCI, ESI,Q2).**

20. **Xinqiang Chen**, Shubo Wu, Chaojian Shi Yanguo Huang, Yongsheng Yang, Ruimin Ke, Jiansen Zhao. (2020). "*Sensing Data Supported Traffic Flow Prediction via Denoising Schemes and ANN: A Comparison*" IEEE Sensors Journal, 20(23), 14317-14328. **(SCI, ESI，Q2).**

21. **Xinqiang Chen***, Shengzheng Wang, Chaojian Shi, Huafeng Wu, Jiansen Zhao, Junjie Fu (2019). "*Robust ship tracking via multi-view learning and sparse representation*", Journal of Navigation, 72(1), 176-192. **(SCI，ESI，Q2).**

22. Guangnian Xiao, Tian Wang, **Xinqiang Chen***, Lizhen Zhou. "*Evaluation of Ship Pollutant Emissions in the Ports of Los Angeles and Long Beach*" Journal of Marine Science and Engineering, 2022, 10(9): 1206 **(SCI, ESI Hot paper,Q2).**

23. **Xinqiang Chen,** Peishi Wu, Yajie Zhang, Xiaomeng Wang, Jiangfeng Xian, Han Zhang (2025). "*Smart Maritime Transportation-Oriented Ship-Speed Prediction Modeling Using Generative Adversarial Networks and Long Short-Term Memory*" Journal of Marine Science and Engineering 13(6), 1-30 **(SCI,Q3)**.

24. **Xinqiang Chen,** Chenxin Wei, Zhengang Xin, Jiansen Zhao*, Jiangfeng Xian (2023). *" Ship Detection under Low-Visibility Weather Interference via an Ensemble Generative Adversarial Network "* Journal of Marine Science and Engineering, 1-17. **(SCI,Q2).**

25. **Xinqiang Chen**, Xingyu Wu, Dilip K. Prasad, Bing Wu*, Octavian Postolache, Yongsheng Yang (2022). "*Pixel-wise Ship Identification from Maritime Images via a Semantic Segmentation Model*" IEEE Sensors Journal, 22(18):18180-18191. **(SCI,Q2).**

26. **Xinqiang Chen**, Chenxin Wei, Guiliang Zhou, Huafeng Wu, Zhengyi Wang, Salvatore Antonio Biancardo. (2022) "*Automatic Identification System (AIS) Data Supported Ship Trajectory Prediction and Analysis via a Deep Learning Model*" Journal of Marine Science and Engineering, 10(9):1314 **(SCI,Q2).**

27. **Xinqiang Chen,** Huixing Chen, Xianglong Xu, Lijuan Luo, Salvatore Antonio Biancardo (2022). "*Ship tracking for maritime traffic management via a data quality control supported framework*" Multimedia tools and applications, 81(5):7239-7252. **(SCI,Q2).**

28. **Xinqiang Chen**, Chen Chen, Huafeng Wu, Octaivan Postolache, Yuzheng WU (2025). "*An improved artificial potential field method for multi-AGV path planning in ports*" Intelligence & Robotics, 2025(5):19-33. **(ESCI)**

29. **Xinqiang Chen**, Qianli Ma, Huafeng Wu, Wenlong Shangh, Bin Han, Salvatore Antonio Biancardo (2025) "*Autonomous port traffic safety orientated vehicle kinematic information exploitation via port-like videos*" Transportation Safety and Environment, 7(3), 1-15. **(EI, Q2)**

30. **Xinqiang Chen**, Zhanhao Zhang, Zhibin Li*, Bing Han, Yiwen Zheng, Salvatore Antonio Biancardo (2025) "*Microscopic aggerated traffic parameter extraction against complex camera motion interference*" Transportation Safety and Environment, Accepted. **(EI, Q2)**

31. **Xinqiang Chen**, Jianhui Chen, Shuhao Liu, Bing Han, Jiansen Zhao*, Chaofeng Li (2024). " *Sea-sky-line detection method in visible light image based on semantic segmentation and hough transform*" Navigation of China, 47(4): 65-72**.**

32. **Xinqiang Chen**, Jinyu Dai, Bing Han, Shuhao Liu (2024). " *Research on AGV cooperative scheduling considering quay crane cache area and energy saving*" Navigation of China, 47(3):72-80.

33. **Xinqiang Chen**, Yuan Gao, Jiansen Zhao, Yamin Zhou, Xiaojun Mei, Jiangfeng Xian, (2024)." *Regional vessel traffic volume Prediction via Chebnet-LSTM model*" Journal of Shanghai Maritime University, 45(1): 32-38.

34. **Xinqiang Chen**, Meilin Wang, Chaofeng Li, Yang Yang, Xiaojun Mei, Yamin Zhou (2023). " *Port staff trajectory extraction based on deep learning and multi-level matching mechanism* " Journal of Transportation Systems Engineering and Information Technology, 23(4):70-79. **(EI).**

35. **Xinqiang Chen**, Feixiang Shi, Zichuang Wang, Yongsheng Yang, Wei Liu, Yang Sun (2022). "*Safety evaluation of multi-ship encountering situation via fuzzy logic model*" Journal of Guangxi University (Natural Science Edition), 47(5): 1327-1336.

36. **Xinqiang Chen**, Jinbiao Zheng, Jun Ling, Zichuang Wang, Jianjun Wu, Ying Yan (2022). "*Abnormal Behavior Recognition under Shipping Working Environment via Asynchronous Interaction Aggregation*", Journal of Transport Information and Safety, 40(2): 22-29.

37. **Xinqiang Chen**, Xianglong Xu, Jing Peng, Yang Sun, Zichuang Wang, Ying Yan (2022). "*Maritime traffic pattern recognition based on Douglas-Peucker and Quick Bundles models*", Journal of Shanghai Maritime University, 43(03):1-6.

38. **Xinqiang Chen**, Xueqian Xu, Yongsheng Yang, Yanguo Huang, Jing Chen, Ying Yan. (2021). "*Visual Ship Tracking via a Hybrid Kernelized Correlation Filter and Anomaly Cleansing Framework*" Applied Ocean Research, 106(2021), 1-10. **(SCI,Q1).**

39. **Xinqiang Chen**, Jun Ling, Lei Qi, Yongsheng Yang, Yamin Zou (2021). "Multi-Targets Ship Tracking via a Multi-Dimension Features Fusion and Scale Estimation" Computer Engineering and Applications, 57(13), 246-250.

40. **Xinqiang Chen,** Jun Ling, Yongsheng Yang Hailin Zheng, Pengwen Xiong, Octavian Postolache, Yong Xiong. (2020). "*Ship Trajectory Reconstruction from AIS Sensory Data via Data Quality Control and Prediction*" Mathematical Problems in Engineering, 2020, 1-9. **(SCI,Q4).**

41. **Xinqiang Chen**, Jinquan Lu, Jiansen Zhao ,Zhijian Qu, Yongsheng Yang, Jiangfeng Xia. (2020). "*Traffic Flow Prediction at Varied Time Scales via Ensemble Empirical Mode Decomposition and Artificial Neural Network*" Sustainability, 12(9), 1-17. **(SCI,Q3).**

42. **Xinqiang Chen**, Huixing Chen, Huafeng Wu, Yanguo Huang, Yongsheng Yang, Wenhui Zhang, Pengwen Xiong. (2020). "*Robust Visual Ship Tracking with an Ensemble Framework via Multi-View Learning and Wavelet Filter*" Sensors, 20(3), 1-17. **(SCI,Q2).**

43. **Xinqiang Chen**, Zhibin Li, Yinhai Wang, Jinjun Tang, Wenbo Zhu, Chaojian Shi, Huafeng Wu. (2018). "*Anomaly Detection and Cleaning of Highway Elevation Data*

from Google Earth Using Ensemble Empirical Mode Decomposition", Journal of Transportation Engineering, Part A: Systems, 144(5), 1-14. **(SCI,Q3).**

44. **Xinqiang Chen**, Zhibin Li, Yinhai Wang, Zhiyong Cui, Chaojian Shi, Huafeng Wu. (2017). "*Evaluating the impacts of grades on vehicular speeds on interstate highways*", PloS one, 12(9), 1-15. **(SCI,Q3).**

45. Yuqing Wang, **Xinqiang Chen***, Yuzhen Wu, Jiansen Zhao, Octavian Postolache, Shuhao Liu. "*Visual Navigation Systems for Maritime Smart Ships: A Survey*". Journal of Marine Science and Engineering. 2024; 12(10):1781 **(SCI,Q2).**

46. Shubo Wu, **Xinqiang Chen***, Chaojian Shi, Junjie Fu, Ying Yan, Shengzheng Wang (2022). "*Ship Detention Prediction via Feature Selection Scheme and Support Vector Machine (SVM)*" Maritime Policy & Management, 49(1):140-153. **(SCI,Q2).**

47. Junjie Fu, **Xinqiang Chen*,** Shubo Wu, Chaojian Shi,Jiansen Zhao,Jiangfeng Xian. (2020). "*Ship Detention Situation Prediction via Optimized Analytic Hierarchy Process and Naive Bayes Model*" Mathematical Problems in Engineering, 2020, 1-11. **(SCI,Q3).**

48. Junjie Fu, **Xinqiang Chen***, Shubo Wu*, Chaojian Shi, Huafeng Wu, Jiansen Zhao, Pengwen Xiong. (2020). "*Mining Ship Deficiency Correlations from Historical Port State Control (PSC) Inspection Data*" PloS one, 15(2), 1-19. **(SCI,Q2).**

49. Yuzhen Wu, Yucheng Suo, **Xinqiang Chen***, Yongsheng Yang, Han Zhang, Zichuang Wang, ·Octavian·Postolache (2025). "*Monocular Unmanned Boat Ranging System Based on YOLOv11-Pose Critical Point Detection and Camera Geometry*" Journal of Marine Science and Engineering 13(6): 1-19. **(SCI,Q3).**

50. Yang Sun, Yuchen Cao, **Xinqiang Chen***, Liang Chen, Qinyou Hu (2025). " Marine accident black spot clustering and search and rescue resource optimization based on multiple features " Ocean Engineering, 333(2025): 1-15. **(SCI,Q1).**

51. Xiaohu Xing, Chang Sun, and **Xinqiang Chen***. (2024). "Research on Express Crowdsourcing Task Allocation Considering Distribution Mode under Customer Classification" Sustainability, 16,(18): 7936.**(SCI,Q2)**

52. Shibo Li, Jiajun Xu, **Xinqiang Chen***, Yajie Zhang, Yiwen Zheng, Octavian Postolache. "*Maritime Traffic Knowledge Discovery via Knowledge Graph Theory*" Journal of Marine Science and Engineering, 12(12), 1-21. **(SCI,Q2).**

53. Yang Sun, Chengyang Hou, **Xinqiang Chen***, Yanhao Wang, Lihao Dai, Qinyou Hu (2024). "*Accident black spot clustering oriented maritime search and rescue resource allocation and optimization*". Frontiers in Marine Science, 11, 1-18. **(SCI,Q1).**

54. Zhijian Chen, Jiqiang Zhao*, **Xinqiang Chen*** (2024). "*The Interaction and Sustainable Efficiency Between Tourism Systems and the Energy–Economy–Environment System: A Novel Parallel Network Super-Efficiency Slacks-Based Measure Model*" Sustainability, 16(23): 10520. **(SCI,Q2).**

55. Yang Sun, Jun Ling, **Xinqiang Chen***, Fancun Kong, Qinyou Hu, Salvatore Antonio Biancardo. "*Exploring Maritime Search and Rescue Resource Allocation via an*

Enhanced Particle Swarm Optimization Method" Journal of Marine Science and Engineering, 2022, 10 (7): 1-14. **(SCI,Q2).**

56. Jiansen Zhao, Zhongwei Yan, **Xinqiang Chen***, Bing Han, Shubo Wu, Ranxuan Ke. "*k-GCN-LSTM: A k-hop Graph Convolutional Network and Long Short-Term Memory for ship speed prediction*" Physica A: Statistical Mechanics and its Applications, 606(2022), 1-14 **(SCI,Q2).**

57. Jiansen Zhao, Lingjun Kong, **Xinqiang Chen***, Hongmei Liu, Shengzheng Wang. "*Experimental Study on a Self-phase-shifting Cross Vibrator Plasma Antenna Array*" IEEE Antennas and Wireless Propagation Letters, 2022, 21 (7): 1343-1347. **(SCI,Q2).**

58. Hu Liu, Xueqian Xu, **Xinqiang Chen***, Chaofeng Li, Meilin Wang. "*Real-time ship tracking under challenges of scale variation and different visibility weather conditions*" Journal of Marine Science and Engineering, 2022, 10(3): 1-16. **(SCI,Q2).**

59. Jiansen Zhao, Jinquan Lu, **Xinqiang Chen***, Zhongwei Yan, Ying Yan, Yang Sun. "*High-Fidelity data supported Ship Trajectory Prediction via an Ensemble Machine Learning Framework*" Physica A: Statistical Mechanics and its Applications, 586(2022), 1-10. **(SCI,Q2).**

60. Jinjun Tang, Jin Hu, Wei Hao, **Xinqiang Chen*,** Yong Qi. "*Markov Chains based route travel time estimation considering link spatio-temporal correlation*" Physica A: Statistical Mechanics and its Applications, 545(2020), 1-13. **(SCI,Q2).**

61. Qiang Luo, Jie Yuan, **Xinqiang Chen***, Shubo Wu, Zhijian Qu, Jinjun Tang. "*Analyzing start-up time headway distribution characteristics at signalized intersections*", Physica A: Statistical Mechanics and its Applications, 535(2019), 1-10. **(SCI,Q2).**

62. Zhijian Qu, Xubing Sun, **Xinqiang Chen***, Shengao Yuan. (2019). "*A novel RFID multi-tag anti-collision protocol for dynamic vehicle identification*" PloS one, 14(7), 1-25. **(SCI,Q3).**

63. Qiang Luo, Xiaodong Zang, Jie Yuan*, **Xinqiang Chen***, Junheng Yang, Shubo Wu. (2020). "Research of Vehicle Rear-End Collision Model considering Multiple Factors" Mathematical Problems in Engineering, 2020, 1-11. **(SCI,Q4).**

64. Qiang Luo, Jie Yuan*, **Xinqiang Chen***, Junheng Yang, Wenhui Zhang, Jiansen Zhao. (2019). "*Research on mixed user equilibrium model based on mobile internet traffic information service*" IEEE ACCESS, 7, 164775-164791. **(SCI,Q2).**

65. Jinjun Tang, Fan Gao, Fang Liu, **Xinqiang Chen*** (2020). "*A Denoising Scheme-Based Traffic Flow Prediction Model: Combination of Ensemble Empirical Mode Decomposition and Fuzzy C-means Neural Network*" IEEE ACCESS, 8, 11546-11559. **(SCI,Q2).**

66. Jiansen Zhao, Yanjun Chen, Zhenzhen Zhou, Jingying Zhao, Shengzhegn Wang, **Xinqiang Chen*** (2023). " *Multiship Speed Measurement Method Based on Machine Vision and Drone Images*" IEEE Transactions on Instrumentation and Measurement, 72:1-12. **(SCI,Q1).**

67. Xiaolei Ma, **Xinqiang Chen**, Zhuang Dai. (2024). *"Special issue on transportation big data and its applications "*. Applied Sciences, 14(4), 1517. （SCI,Q3）

68. Xueqian Xu, **Xinqiang Chen**, Bing Wu*, Zichuang Wang, Jinbiao Zhen. "*Exploiting high-fidelity kinematic information from port surveillance videos via a YOLO-based framework*" Ocean & Coastal Management, 222(2022): 1-10. **(SCI,Q1).**

69. Yang Sun, **Xinqiang Chen**, Jun Ling, Jiansen Zhao, Qinyou Hu, Xianghui Fang, Ying Yan. (2021), "Ship trajectory cleansing and prediction with historical ais data using an ensemble ANN framework" International journal of innovative computing information and control, 17(2): 443-459. **(EI)**

70. Qiang Luo, **Xinqiang Chen**, Jie Yuan, Xiaodong Zang, Junheng Yang, Jing Chen. (2020). "Study and Simulation Analysis of Vehicle Rear-End Collision Model considering Driver Types" Journal of Advanced Transportation, 2020, 1-11. **(SCI,Q3).**

71. Shubo Wu , **Xinqiang Chen** , Huixing Chen and Jinquan Lu. (2020). "*Intelligent fire early warning and monitoring system for ship bridge based on WSN.*" International Journal of Science,7(8), 248-255.67.**(SCI,Q4).**

72. Jinjunn Tang, **Xinqiang Chen**, Zheng Hu, Fang Zong, Chunyang Han, Leixiao Li. "*Traffic flow prediction based on combination of support vector machine and data denoising schemes*" Physica A: statistical mechanics and its applications, 534(2019), 1-19. **(SCI，Q2).**

73. Li, Wenwen, Zhengliang Hu, and **Xinqiang Chen**. 2025. "Governmental Functions in Establishing Alternative Marine Fuel Supply Chains in Shipping Decarbonization Governance" *Sustainability* 17(7): 2808.**(SCI,Q2)**

74. Jiangfeng Xiang, Junling Ma, **Xinqiang Chen**, Huafeng Wu, Xiaojun Mei, Yuanyuan Zhang, Weijun Wang. (2025). *"Robust and precise drowning target localization under dual-parameters uncertainty "* Regional Studies in Marine Science, 85, 104131.**(SCI,Q4)**

75. Rong Zhen, Yingdong Ye, **Xinqiang Chen**, Liangkun Xu. (2023). *"A novel intelligent detection algorithm of aids to navigation based on improved YOLOv4 "*Journal of Marine Science and Engineering, 11(2), 452. （SCI,Q2).

76. Guangnian Xiao, Liu Chen, **Xinqiang Chen**, Chenming Jiang, Anning Ni, Chunqin Zhang, Fang Zong. (2023). *"A hybrid visualization model for knowledge mapping: Scientometrics, SAOM, and SAO. "* IEEE transactions on intelligent transportation systems, 25(3), 2208-2221.（SCI,Q1)

77. Jiansen Zhao, Zhongwei Yan, **Xinqiang Chen**,Bing Han, Shubo Wu, Ranxuan Ke. (2022). *" k-GCN-LSTM: A k-hop Graph Convolutional Network and Long–Short-Term Memory for ship speed prediction "* Physica A: Statistical Mechanics and its Applications, 606, 128107. （SCI,Q2).

78. Zhenzhen Zhou, Jiansen Zhao, **Xinqiang Chen**,Yanjun Chen (2023). *"A ship tracking and speed extraction framework in hazy weather based on deep learning."*Journal of Marine Science and Engineering, 11(7), 1353. **(SCI,Q2).**

79. Haoyang Yan, Zhiyong Cui, **Xinqiang Chen**, Xiaolei Ma. (2022).*"Distributed multiagent deep reinforcement learning for multiline dynamic bus timetable optimization."* IEEE Transactions on Industrial Informatics, 19(1), 469-479.72.**(SCI,Q1).**

80. RyanWen Liu, Yuanqiao Wen, **Xinqiang Chen**, Yuxu Lu. (2021). "An enhanced CNN-enabled learning method for promoting ship detection in maritime surveillance system," Ocean Engineering, vol. 235, p. 109435. **(SCI, ESI Hot paper,Q1)**.

81. Jinjun Tang, Shen Zhang, **Xinqiang Chen**, Fang Liu, Yajie Zou. *"Taxi trips distribution modeling based on Entropy-Maximizing theory: A case study in Harbin city-China"* Physica A: Statistical Mechanics and its Applications, 493(2018), 430-443. **(SCI,Q2).**

82. Jiansen Zhao, **Xinqiang Chen**, Shengzheng Wang, Wei Liu, Baoxian Ji, Yue Liu, Zhen Sun, Tie Xu. (2017). "*A Study of the Characteristics of a Deformable Antenna Based on Gas Discharge*" IEEE Transactions on Antennas and Propagation, 66(1), 59-70. **(SCI,Q1).**

83. Chao Yang, Hao Xiao, **Xinqiang Chen**, Lijuan Luo, Haixiao Li, Salvatore Antonio Biancardo. "*Automatic guided vehicle scheduling based photovoltaic-energy storage-charging station low-carbon optimal sizing via a computational intelligence framework* " Computers & industrial engineering, 208(2025): 1-14. **(SCI, Q2)**

84. Huafeng Wu, Xiaojun Mei, **Xinqiang Chen**, Junjun Li, Jun Wang, Prasant Mohapatra. "*A novel cooperative localization algorithm using enhanced particle filter technique in maritime search and rescue wireless sensor network*" ISA transactions, 78(2018), 39-46. **(SCI,Q2).**

85. Haoyang Yan, Zhiyong Cui, **Xinqiang Chen**, Xiaolei Ma. (2022). "*Distributed Multi-Agent Deep Reinforcement Learning for Multi-line Dynamic Bus Timetable Optimization*" IEEE Transactions on Industrial Informatics, 2022, 1-10. **(SCI,Q1).**

86. Xiaojun Mei,Huafeng Wu,**Xinqiang Chen**,Jiangfeng Xian,Zhongdai Wu."Third-order positioning algorithm for wireless sensor networks with double parameters uncertainty" (2025).Journal of Electronic Measurement and Instrumentation,1-10.

87. Shubo Wu, Yajie Zou, Danyang Liu, **Xinqiang Chen**, Yinsong Wang, Amin Moeinaddini. (2025).*" Investigating Traffic Characteristics at Freeway Merging Areas in Heterogeneous Mixed-Flow Environments "* Sustainability, 17(5), 2282.**(SCI,Q2)**

88. JiansenZhao, Zhongwei Yan ,ZhenZhen Zhou ,**Xinqiang Chen**, Bin Wu, Shengzheng Wang (2023). *A ship trajectory prediction method based on GAT and LSTM.Ocean engineering*,*289*, 116159. **(SCI,Q2).**

89. Yuqi Zhang, Chaofeng Li, Shaopeng Shang, **Xinqiang Chen** .(2023). " SwinSeg: Swin transformer and MLP hybrid network for ship segmentation in maritime surveillance system. " Ocean Engineering, 281, 114885.**(SCI,Q2)**

90. Francesco Abbondati, Salvatore Antonio Biancardo, Rosa Veropalumbo, **Xinqiang Chen**, Gianluca Dell'Acqua. (2023). *"An adaptive neuro-fuzzy inference system for assessing runway friction decay"* Measurement, 213, 112737. **(SCI,Q2).**

91. Yichen Lu, Kai Cheng, Yue Zhang, **Xinqiang Chen**, Yajie Zou. (2023). *"Analysis of lane-changing conflict between cars and trucks at freeway merging sections using UAV video data."* Journal of Transportation Safety & Security, 15(9), 943-961. **(SCI,Q3)**

92. Jiangfeng Xian, Huafeng Wu, Xiaojun Mei, **Xinqiang Chen**, Yongsheng Yang (2022). " *Low-Delay and Energy-Efficient Opportunistic Routing for Maritime Search and Rescue Wireless Sensor Networks*" Remote Sensing, 14(20), 1-16 **(SCI,Q2).**

93. Zhijian Qu, Hanxin Liu, Hailin Wang, **Xinqiang Chen**, Rui Chi Zixiao Wang. (2020). "*Cluster equilibrium scheduling method based on backpressure flow control in railway power supply systems*" PLoS ONE, 15(12): 1-23. **(SCI,Q3).**

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1. **Xinqiang Chen**, "*AI-oriented smart shipping knowledge discovery*", AIAT 2025 International Conference on Artificial Intelligence and Autonomous Transportation, Beijing, December 2025, invited speech

2. **Xinqiang Chen**, "*Ship spatial-temporal carbon emission pattern mining via Spatial Grid Partitioning model*", AIAT 2025 International Conference on Artificial Intelligence and Autonomous Transportation, Beijing, December 2025, Oral presentation

3. **Xinqiang Chen**, "*Ship visual information augmentation and kinematic information extraction towards smart-shipping era*", the 4th international conference on Robotics, Artificial intelligence and Intelligent Control (RAIIC 2025), invited speech

4. **Xinqiang Chen**, *"AI-Powered vision for smart shipping: Enhancing maritime perception and situational awareness*", the 25th COTA international conference of transportation Professionals (CICTP 2025), invited speech

5. **Xinqiang Chen**, "*Autonomous ship navigation oriented visual perception technique exploitation*", AIAT 2024 International Conference on Artificial Intelligence and Autonomous Transportation, Beijing, December 2024, oral presentation.

6. **Xinqiang Chen**, "*Intelligent Traffic Situation Awareness and Knowledge Discovery for Smart Shipping Era*", 4th International Symposium on Sensing and Instrumentation in IoT Era (ISSI 2024), Keynote Speech, August 2024, Azores, Portugal.

7. **Xinqiang Chen**, "*Research on Intelligent Shipping Perception Driven by Multi-source and Multimodal Maritime Data*", 24th COTA International Conference of Transportation Professionals (CICTP 2024), July 2024, Shenzhen, Sub-forum Report.

8. **Xinqiang Chen**, "*Visual Navigation and Traffic Situation Awareness for Smart Shipping*", 3rd International Conference on Robotics, Artificial Intelligence, and Intelligent Control (RAIIC 2024), July 2024, Mianyang, Sub-forum Report.

9. **Xinqiang Chen**, "*Research on Integrated Traffic Situation Awareness for Ship-Port-Vehicle in the Perspective of Smart Water Transport*", 2022, Special Guest Report at the Youth Scholars Forum of Universities.

10. **Xinqiang Chen**, Xingyu Wu, Dilip K. Prasad, Bing Wu, Octavian Postolache, Yongsheng Yang. "Accurate ship recognition from maritime surveillance videos via a semantic segmentation model", 2022, Hohai-Lianyun Academic Seminar (Presentation).

11. **Xinqiang Chen,** Xingyu Wu, Bing Wu, Shengzheng Wang, Guangnian Xiao. " *A High-Precision Semantic Segmentation Model for Ship Image Pedestrian and vehicle detection via port surveillance video*" 2022 World Transport Convention (WTC), **(Presentation).**

12. **Xinqiang Chen,** Xingyu Wu, Bing Wu, Huafeng Wu ,Jiangfeng Xian. " *A High-Precision Semantic Segmentation Model for Ship Image Pedestrian and vehicle detection via port surveillance video*" 2022 World Transport Convention (WTC), **(Presentation).**

13. **Xinqiang Chen,** Yongsheng Yang, Huafeng Wu, et al. "*Detecting Ships from Coastal Surveillance Videos with a Canny-Gaussian Morphology Framework*" The 99th Annual Meeting of Transportation Research Board, 2020, **(Poster Presentation).**

14. **Xinqiang Chen**, Zhibin Li, Yongsheng Yang, Huafeng Wu, Ruimin Ke, Wenzhu Zhou. "*Extracting and Denoising Vehicle Trajectory Automatically from Aerial Roadway Surveillance Videos*" The 98th Annual Meeting of Transportation Research Board, No. 19-03147, 2019, **(Poster Presentation).**

15. **Xinqiang Chen**, Chaojian Shi, Shengzheng Wang, Huafeng Wu, Zhibin Li, Jibiao Zhou. "*Recognizing typical merchant ship categories based on a deep network*" The 97th Annual Meeting of Transportation Research Board, No. 18-02544. 2018, **(Poster Presentation).**

16. **Xinqiang Chen**, Chaojian Shi, Shengzheng Wang, Huafeng Wu, Jiansen Zhao, Zhibin Li. "*Automatic tracking of ships based on maritime surveillance videos*" The 97th Annual Meeting of Transportation Research Board, No. 18-02553. 2018, **(Poster Presentation).**

17. **Xinqiang Chen**, Dezhi Han, Yiwen Zheng, Han Zhang, Bing Han& Yongsheng Yang(2025, March). "Channel Prior for Nighttime Pedestrian. " In The Proceedings of 2024 International Conference on Artificial Intelligence and Autonomous Transportation: Volume V (Vol. 1393, p. 46). Springer Nature.

18. **Xinqiang Chen**, Qianli Ma, Yongsheng Yang, Huafeng Wu, Yuzhen Wu, Jie Wang. (2024, August). *"Vehicle Kinematic Exploitation from Port-like Videos via an ensemble Generative Adversarial Network. "* In 2024 International Symposium on Sensing and Instrumentation in 5G and IoT Era (ISSI) (Vol. 1, pp. 1-6). IEEE.

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20. **Xinqiang Chen**, Jianhui Chen, Shuhao Liu, Jiansen Zhao, Xingyu Wu, Shengzheng. (2023). *"Sea-Sky Line Detection via an Ensemble Semantic Segmentation and Hough Transform Method. "* In CICTP 2023 (pp. 257-262).

21. **Xinqiang Chen**, Shuhao Liu, Chaofeng Li, Bing Han, Yamin Zhou, Jiansen Zhao, "*AGV path planning and optimization with deep reinforcement learning model*" 2023 7th International Conference on Transportation Information and Safety (ICTIS), Xi'an, China, 2023, pp. 1859-1863.

22. **Xinqiang Chen,** Siying Lv, Bing Wu, Chaofeng Li, Jiangfeng Xian, Huafeng Wu. "*Ship Energy Efficiency Operation Index Variation Analysis Via Empirical Voyage Data*"

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23. **Xinqiang Chen,** Chenxin Wei, Yongsheng Yang, Jiangfeng Xian, Huafeng Wu, Xiaojun Mei, "*Robust Port Staff Trajectory Extraction under Adverse Visibility Challenges*" The 23nd COTA International Conference of Transportation Professionals (CICTP), Beijng, China, 2023, pp. 50-55.

24. **Xinqiang Chen**, Weiping Chen, Yongsheng Yang, Chaofeng Li, Bing Han, Haiqing Yao., "*High-fidelity ship imaging trajectory extraction via an instance segmentation model*" 2022 International Symposium on Sensing and Instrumentation in 5G and IoT Era (ISSI), Shanghai, China, 2022, pp. 165-169, doi: 10.1109/ISSI55442.2022.9963190.

25. **Xinqiang Chen**, Meilin Wang, Yongsheng Yang, Huafeng Wu, Jun Ling, Jiangfeng Xian. (2022, November). *"Port staff trajectory exploitation via an emsemble detection-tracking framework. "* In 2022 International Symposium on Sensing and Instrumentation in 5G and IoT Era (ISSI) (pp. 170-174). IEEE.

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29. Zhibin Li, **Xinqiang Chen***, Lei Ling, Huafeng Wu, Wenzhu Zhou, Cong Qi. "Accurate Traffic Parameter Extraction from Aerial Videos with Multi-Dimensional Camera Movements" The 98th Annual Meeting of Transportation Research Board, No. 19-02817, 2019, **(Poster Presentation).**

30. Han Zhang, **Xinqiang Chen**, Dezhi Han, Yiwen Zheng, Bing Han, Yongsheng Yang. (2024, December). *"Enhanced SlowFast Networks with Dark Channel Prior for Nighttime Pedestrian Detection in Port Surveillance. "* In International Conference on Artificial Intelligence and Autonomous Transportation (pp. 46-52). Singapore: Springer Nature Singapore.

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32. Yanyuan Huang, Fei Ma, **Xinqiang Chen**. "A novel framework for Navigation Service-oriented Risk Identification Assessment and Control", The 16th International Conference on Green Intelligent Transportation System and Safety, May 2025.

33. Peng Su, Yongsheng Yang, **Xinqiang Chen**, Octavian Postolache. (2024, August). *"Gearbox Fault Diagnosis of Port Crane based on IoT. "* In 2024 International Symposium on Sensing and Instrumentation in 5G and IoT Era (ISSI) (Vol. 1, pp. 1-5). IEEE.

34. Jian Hao, Yifei Wang, Yongsheng Yang, **Xinqiang Chen**, Octavian Postolache. (2024, August). *"Fault detection method of gantry slewing bearing based on improved comprehensive features. "* In 2024 International Symposium on Sensing and Instrumentation in 5G and IoT Era (ISSI) (Vol. 1, pp. 1-5). IEEE.

35. Xiaojun Mei, Huafeng Wu, Dezhi Han, **Xinqiang Chen**, Jiangfeng Xian, Bing Han. (2023, April). *"A computationally efficient target localization algorithm in underwater wireless sensor networks. "* In 2023 8th International Conference on Computer and Communication Systems (ICCCS) (pp. 181-186). IEEE.

36. Yanguo Huang, Shuo Zhang, Junlin Wen, **Xinqiang Chen**. (2020, May). *"Short-term traffic flow prediction based on graph convolutional network embedded lstm".* In International Conference on Transportation and Development 2020 (pp. 159-168). Reston, VA: American Society of Civil Engineers.

37. Jingwei Yu, Qian Wan, Qianqian Liu, **Xinqiang Chen**, Zhibin Li. *"A Novel Ship Detector Based on Gaussian Mixture Model and K-Means Algorithm. "* In International Conference on Applications and Techniques in Cyber Security and Intelligence ATCI 2018: Applications and Techniques in Cyber Security and Intelligence (pp. 639-646). Springer International Publishing.

38. Jiangfeng Xian, Zhisheng Li, Huafeng Wu, Xiaojun Mei, **Xinqiang Chen**, Yuanyuan Zhang, Linian Liang, Qiannan Zhang, Weijun Wang. (2025, February). *"A novel polar codes construction method for OFDM hydroacoustic communication system under t-distribution noise. "* In Fourth International Computational Imaging Conference (CITA 2024) (Vol. 13542, pp. 1038-1043). SPIE.

Patents

113.

1. **Xinqiang Chen**, Qiuying Wang, Yongsheng Yang, Bing Han, et al., "*Method for vessel traffic pattern recognition via data quality control and compression*", No. 17/976816 **(U.S.A Patent, Authorized).**

2. **Xinqiang Chen**, Hao Wu, Yongsheng Yang, Bing Wu, Yang Sun, Huafeng Wu, Wei Liu, Jiangfeng Xian, "*Ship imaging trajectory tracking and prediction method based on ship heading recognition*", Application No.17/886901**(U.S.A Patent, Authorized).**

3. **Xinqiang Chen**, Zichuang Wang, Yongsheng Yang, Bing Han, Zhongdai Wu, Chenxin Wei, Huafeng Wu, Yang Sun. Ensemble Deep Learning Method for Identifying Unsafe

Behaviors of Operators in Maritime Working Environment, No.17747946 **(U.S.A Patent, Authorized).**

4. **Xinqiang Chen,** Yonghsheng Yang, Huafeng Wu, et al. Vessel Type Identification Method Using Coarse-To-Fine Cascaded Convolutional Neural Network, No. CA 3084451, 2024 **(Canada Patent, Authorized).**

5. **Xinqiang Chen**, Bing Han, Zhongdai Wu, Xingyu Wu, Yongsheng Yang, et al., A Multi-target Ship Tracking Method and System, Application No: 202211511427.9 **(Invention Patent, Authorized).**

6. **Xinqiang Chen**, Siying Lv, Yongsheng Yang, et al., "*Ship detection method based on machine vision*", No. 2023/05030 **(South Africa Patent, Authorized).**

7. **Xinqiang Chen**, Feixiang Shi, Bangping Gu, et al., "*A method for evaluating water traffic conditions based on fuzzy rules*", No. 202200772 **(South Africa Patent, Authorized).**

8. **Xinqiang Chen**, Chenxin Wei, Yongsheng Yang, Bing Han, "*Method for intelligently extracting and identifying people's tracks in different environments*", No. LU502830 **(Luxembourg Patent, authorized).**

9. **Xinqiang Chen**, Jiachang Fan, Yongsheng Yang, Bing Han, Huafeng Wu, Jiangfeng Xian, Yamin Zhou, Zhongliang Zhu. "*Ship tracking method and system*" No. F/PT/C2023/7983 **(Nigeria Patent, Authorized).**

10. **Xinqiang Chen**, Weiping Chen, Yongsheng Yang, et al., "*Ship imaging trajectory extraction under discontinuous visual interferences*", Application No. 202210337 **(South Africa Patent, authorized).**

11. **Xinqiang Chen,** Huixing Chen, Yongsheng Yang, et al., A Headway Time Modeling Method and a Minimum Green Light Time Calculation Method, Application No: 201910461276.2 **(Invention Patent, Authorized).**

Selected Funding and Projects (PI/Co-PI)

1. Autonomous navigation oriented maritime traffic situation proactive recognition unified representation, Sponsored by National Natural Science Foundation of China, 2025-2028, **PI**

2. Ship trajectory tracking from maritime images under hybrid navigation environment interference, Sponsored by National Natural Science Foundation of China, 2022-2024, **PI**

3. High-precision ship tracking mechanism under complex navigational environment interference, Sponsored by China Postdoctoral Science Foundation (No. 2021M700790), **PI**

4. Research on Intelligent Navigation Decision-making Strategy via Stochastic Optimization Method, Sponsored by State key lab of maritime traffic control, 2025-2025, **PI**

5. Fund of Chongqing Key Laboratory of Green logistics intelligent Technology, 2024.11-2025.10, **PI**
6. Fund of Shanghai Ship and Shipping Research Institute, 2022.1-2023.12, **PI**
7. Fund of National Engineering Research Center for Water Transport Safety (No. A2022003), **PI**
8. Foundation for Jiangsu key Laboratory of Traffic and Transportation Security (No. TTS2021-05), **PI**
9. Fund of Hubei Key Laboratory of Inland Shipping Technology (No. NHHY2021002), **PI**
10. Control Science and Engineering Graduate Student Key Course Assignment (Sponsored by Shanghai Maritime University), **PI**
11. Shanghai University Young Teacher Training Grant Program (Sponsored by Shanghai Municipal Education Commission), **PI**
12. International Patent (PCT) Incubation Fund (Sponsored by Shanghai Maritime University), **PI**
13. Research on the regulation of waterborne traffic rescue resources in an environment of incomplete accident information (Sponsored by National Natural Science Foundation of China), Participated
14. *Dynamic topology and spatial-temporal stochastic coverage mechanism of maritime search and rescue wireless sensor networks (Sponsored by National Natural Science Foundation of China), Participated*
15. Research on the performance regulation mechanism of shipboard BeiDou multi-planarized and controllable four-armed spiral antenna array (Sponsored by National Natural Science Foundation of China), Participated
16. Three-dimensional dynamic cooperative localization mechanism of ocean sensor network based on wave masking effect model (Sponsored by National Natural Science Foundation of China), Participated
17. *Highway Grade Characterization and Operating Efficiency Methods, Tools and Data Development (Sponsored by Federal Highway Administration), Participated*
18. Maritime target detection via GNSS-R and heterogeneous sensor information fusion method for maritime surveillance (Sponsored by National Natural Science Foundation of China), Participated
19. *Energy-friendly route design based on big data and machine learning (Sponsored by Shanghai Municipal Education Commission), Participated*
20. Study on the mechanism of dynamic topology and temporal and spatial random coverage of wireless sensor network in maritime search and rescue (Sponsored by Shanghai Municipal Education Commission), Participated

Academic Service/Honors/Memberships

- **2024 Elsevier Top-Cited scientist (2%)**
- **2022 Elsevier Top-Cited scientist (2%)**
- **Associate Editor** for Measurement and Control (SCI, JCR Q3, 2024-)
- **Associate Editor** for IET Intelligent Transport Systems (SCI, JCR Q3, 2024-)
- **Associate Editor** for International Journal of Advanced Robotic Systems (SCI, 2024-)
- **Associate Editor** for Discover Applied Sciences (EI, ESCI, 2024-)
- **Editorial board Member** for Transportation Safety and Environment (EI, ESCI) (2024-2026)
- **Editorial board Member** for Journal of Marine Science and Engineering (SCI, 2024-)
- **Editorial board Member** for Sustainability (SCI, 2024-)
- **Associate Editor** for Journal of Shipping and Ocean Engineering (2023-)
- **Editorial board Member for** Intelligence & Robotics
- **Leading Guest Editor** for Journal of Marine Science and Engineering (SCI, 2022-2024)
- **Leading Guest Editor** for Journal of Advanced Transportation (SCI, 2021)
- **Guest Editor** for Sensors (SCI, 2021)
- **Guest Editor** for Applied Sciences (SCI, 2021)
- **Guest Editor** for Sustainability (SCI, 2020)
- **Guest Editor** for Frontier Frontiers in Future Transportation (2021)
- **Guest Editor** for IEEE Open Journal of Intelligent Transportation Systems (EI, 2024)
- **Youth Editorial Board Member** of Sustainable Horizon
- **Area Editor** for the COTA CICTP (2020-21, **Best Area Editor award**)
- **Session Chair** for the COTA CICTP (2022)
- **Session Chair** for the Academic Seminar on Multimodality of River Shipping and Ocean Shipping (2022)
- **Session Chair** for the 3rd International Conference of the Yangtze River Research and Innovation Belt (2020)
- Reviewer for National Natural Science Foundation of China
- Reviewer for Heilongjiang University Student Transportation Technology Competition (2021, 2022)
- Parttime Expert of National Engineering Research Center for Ship Transportation Control System (2018-2023)
- Excellent papers of the 13th National Youth Academic Conference in the field of Transportation (**10%, 2019**)
- **Outstanding Reviewer** of Maritime Policy & Management (SCI)
- **Outstanding Reviewer** of Journal of King Saud University-Computer and Information Sciences (SCI)
- Member of TRB AW010(3) Subcommittee on Port Performance
- Academic Committee Member of World Transport Convention (WTC 2018, 2019, 2020)
- Member of Technical Program Committee of International Conference on Data Science and Business Analytics (ICDSBA 2018)

- Member of Technical Program Committee of International Conference on Sensing and Instrumentation in IoT Era (ISSI 2018, ISSI 2019, ISSI 2022)
- Member of Technical Program Committee of 2018 the third International Conference on Electrical, Control and Automation Engineering (ECAE2018)
- Committee Member of 2018 International Symposium on Traffic Transportation and Civil Architecture (ISTTCA 2018)
- Member of International Conference on Computational Infrastructure and Urban Planning (CIUP 2022).
- Editorial Board Member of SCIREA Journal of Computer
- Editorial Board Member of SCIREA Journal of Information Science and Systems Science
- Editorial Board Member of SCIREA Journal of Traffic and Transportation
- Editorial Board Member of Journal of Shipping and Ocean Engineering
- Editorial Board Member of International Journal of Transportation Engineering and Technology
- Member of International Association of Engineers
- Second-class prizes of outstanding graduate students achievements of Shanghai Maritime University (2018)