**个人简介**

陈信强，博士，讲师

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**教育背景**

2013.09-2018.06：上海海事大学商船学院，博士

2015.09-2016.09：华盛顿大学环境与市政工程系，国家留学基金委公派博士联合培养

2010.09-2012.07：上海海事大学商船学院，硕士

**工作履历**

2018.09-至今：上海海事大学物流科学与工程研究院，讲师

**研究领域**

1. 基于人工智能、机器学习、深度学习的智慧城市、智能港口和无人码头等方面的研究
2. 智能港航一体化监控，基于视觉导航技术的AGV路线导航与规划
3. 面向无人船的视觉感知及信息处理关键技术
4. 交通大数据挖掘与人工智能，交通建模，e-交通科学
5. 基于交通监控视频的交通行为分析

**科研成果简介**

在Journal of Navigation，Journal of transportation engineering，part A: systems，Journal of Advanced Transportation，Transportation Research Board (TRB)等交通、航海、港航物流等研究领域的知名期刊、会议发表论文30余篇，其中SCI收录期刊论文18篇，授权和申请专利共7项，受邀担任IEEE Transactions on Intelligent Transportation Systems，Journal of Navigation，Journal of transportation engineering, part A: systems，IET Intelligent Transportation Systems, CICTP (2017，2018，2019)，TRB等交通、航海领域内顶级SCI期刊、会议的审稿专家，并担任Journal of Shipping and Ocean Engineering，International Journal of Transportation Engineering and Technology，SCIREA Journal of Traffic and Transportation，SCIREA Journal of Computer等6个国际期刊编委，并受邀担任世界交通运输大会（WTC）水运信息工程安全委员会学术委员，2018第一届（第二届）物联网感知与仪器国际会议（ISSI 2018，ISSI 2019）、2018第三届电气工程与自动化国际会议（ECAE 2018）、2018交通与市政结构国际会议（ISTTCA 2018）等5个EI收录国际会议的组委会成员。作为项目组核心成员，主持和参与国家自然科学基金（青年、面上）、交通运输部基础研究项目、美国联邦公路局研究项目等纵向课题10余项。

**近三年发表（录用）的论文，\*为通信作者：**

1. **Xinqiang Chen**, Zhibin Li, Lei Qi, Yongsheng Yang. "*High-Resolution Vehicle Trajectory Extraction and Denoising from Aerial Videos*" IEEE Transactions on Intelligent Transportation Systems, **(SCI, Accepted).**
2. **Xinqiang Chen**, Jinquan Lu, Jiansen Zhao, Zhijian Qu, Yongsheng Yang, Jiangfeng Xian. " *Traffic Flow Prediction at Varied Time Scales via Ensemble Empirical Mode Decomposition and Artificial Neural Network* " Sustainability, **(SCI, In press).**
3. **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, 1-20. **(SCI).**
4. **Xinqiang Chen**, Huixing Chen, Huafeng Wu, Yanguo Huang, Yongshegn 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)**
5. **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, vol. 8, No.1, 42884-42897. **(SCI).**
6. **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, vol. 2020, 1-12 **(SCI).**
7. **Xinqiang Chen**, Shengzheng Wang, Chaojian Shi, Huafeng Wu, Jiansen Zhao, and Junjie Fu (2019). "*Robust ship tracking via multi-view learning and sparse representation*", Journal of Navigation, vol. 72, no. 1: 176-192 **(SCI).**
8. **Xinqiang Chen**, Zhibin Li, Yinhai Wang, Jinjun Tang, Wenbo Zhu, Chaojian Shi, and 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, vol. 144, no. 5: 1-14 **(SCI).**
9. **Xinqiang Chen**, Zhibin Li, Yinhai Wang, Zhiyong Cui, Chaojian Shi, and Huafeng Wu (2017). "*Evaluating the impacts of grades on vehicular speeds on interstate highways*", PloS one, vol. 12, no. 9: 1-15 **(SCI).**
10. Junjie Fu, **Xinqiang Chen**\*, Shubo Wu\*, Chaojian Shi, Huafeng Wu, Jiansen Zhao, and Pengwen Xiong (2020). "*Mining Ship Deficiency Correlations from Historical Port State Control (PSC) Inspection Data*" PloS one, 15(2), 1-19. **(SCI).**
11. Jinjun Tang, Jin Hu, Wei Hao, **Xinqiang Chen\*** and Yong Qi\*(2020). "*Markov Chains based route travel time estimation considering link spatio-temporal correlation*" Physica A: Statistical Mechanics and its Applications, 545(2020), 1-13 **(SCI).**
12. Qiang Luo, Jie Yuan, **Xinqiang Chen\***, Shubo Wu, Zhijian Qu, and Jinjun Tang\* (2019). "*Analyzing start-up time headway distribution characteristics at signalized intersections*", Physica A: Statistical Mechanics and its Applications vol. 535, no. 2019: 1-10 **(SCI).**
13. Zhijian Qu, Xubing Sun, **Xinqiang Chen\***, and Shengao Yuan (2019). "*A novel RFID multi-tag anti-collision protocol for dynamic vehicle identification*" PloS one, vol. 14, no. 7: e0219344 **(SCI).**
14. 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, vol. 2020 **(SCI).**
15. Qiang Luo, Jie Yuan\*, **Xinqiang Chen\***, Junheng Yang, Wenhui Zhang and Jiansen Zhao (2019). "*Research on mixed user equilibrium model based on mobile internet traffic information service*" IEEE ACCESS, vol. 7: 164775-164791 **(SCI).**
16. 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, vol. 8, 11546-11559 **(SCI).**
17. **Xinqiang Chen**, Zhibin Li, Yinhai Wang, Chaojian Shi, Huafeng Wu, and Shengzheng Wang. "*Highway elevation data smoothing using local enhancement mechanism and butterworth filter*" International journal of innovative computing information and control, vol. 13, no. 6 (2017): 1887-1901. **(EI).**
18. Qiang Luo, **Xinqiang Chen**, Jie Yuan, Xiaodong Zang, Junheng Yang and Jing Chen (2020). "Study and Simulation Analysis of Vehicle Rear-End Collision Model considering Driver Types" Journal of Advanced Transportation, vol. 2020: 1-11. **(SCI).**
19. Jinjunn Tang, **Xinqiang Chen**, Zheng Hu, Fang Zong, Chunyang Han, and Leixiao Li (2019). "*Traffic flow prediction based on combination of support vector machine and data denoising schemes*" Physica a-statistical mechanics and its applications, vol. 534, 120642. **(SCI).**
20. Jinjun Tang, Shen Zhang, **Xinqiang Chen**, Fang Liu, and Yajie Zou (2018). "*Taxi trips distribution modeling based on Entropy-Maximizing theory: A case study in Harbin city—China*" Physica A: Statistical Mechanics and its Applications, vol. 493: 430-443. **(SCI).**
21. Jiansen Zhao, **Xinqiang Chen**, Shengzheng Wang, Wei Liu, Baoxian Ji, Yue Liu, Zhen Sun, and Tie Xu (2017). "*A Study of the Characteristics of a Deformable Antenna Based on Gas Discharge*" IEEE Transactions on Antennas and Propagation, vol. 66, no. 1: 59-70. **(SCI).**
22. Huafeng Wu, Xiaojun Mei, **Xinqiang Chen**, Junjun Li, Jun Wang, and Prasant Mohapatra (2018). "*A novel cooperative localization algorithm using enhanced particle filter technique in maritime search and rescue wireless sensor network*" ISA transactions, vol. 78: 39-46. **(SCI).**
23. Ruyi Feng, Changyan Fan, Zhibin Li, **Xinqiang Chen** (2020). " *Mixed Road User Trajectory Extraction from Moving Aerial Videos based on Convolution Neural Network Detection*" IEEE ACCESS, 1-12 **(SCI).**
24. Jinjun Tang, Shaowei Yu, Fang Liu, **Xinqiang Chen**, and Helai Huang (2019). "*A hierarchical prediction model for lane-changes based on combination of fuzzy C-means and adaptive neural network*" Expert Systems with Applications, vol. 130: 265-275. **(SCI).**
25. Wenhui Zhang, Yongmin Su, Ruimin Ke, and **Xinqiang Chen** (2018). "*Evaluating the influential priority of the factors on insurance loss of public transit*" PloS one, vol. 13, no. 1: e0190103. **(SCI)**.
26. Jiansen Zhao, Shengzheng Wang, Huafeng Wu, Yue Liu, Yongmeng Chang, and **Xinqiang Chen** (2017). "*Flexible plasma linear antenna*" Applied Physics Letters, vol. 110, no. 9: 094108. **(SCI)**.
27. **Xinqiang Chen,** Yongsheng Yang, Huafeng Wu, Ruimin Ke. "*Detecting Ships from Coastal Surveillance Videos with a Canny-Gaussian Morphology Framework*" The 99th Annual Meeting of Transportation Research Board, 2020, **(Poster Presentation).**
28. **Xinqiang Chen**, Zhibin Li, Yongsheng Yang, Huafeng Wu, Ruimin Ke, and 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).**
29. Zhibin Li, **Xinqiang Chen\*,** Lei Ling, Huafeng Wu, Wenzhu Zhou, and 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. **Xinqiang Chen**, Chaojian Shi, Shengzheng Wang, Huafeng Wu, Zhibin Li, and 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).**
31. **Xinqiang Chen**, Chaojian Shi, Shengzheng Wang, Huafeng Wu, Jiansen Zhao, and 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).**

**已投稿论文**

1. **Xinqiang Chen**, Zhibin Li, Yongsheng Yang, Ruimin Ke. "*Microscopic Traffic Parameter Extraction from Aerial Videos with Multi-Dimensional Camera Movements"* Journal of Intelligent Transportation Systems, **(SCI, under review).**
2. **Xinqiang Chen**, Huixing Chen, Yongsheng Yang, Huafeng Wu, Jun Ling, Jiansen Zhao, and Zehong Cao. "*Ship Detection under inshore waters via Canny filter and Gaussian-Morphology method*" Journal of Navigation, **(SCI, under review).**
3. **Xinqiang Chen**, Xueqian Xu, Yongsheng Yang, Huafeng Wu, Jinjun Tang, Pengwen Xiong, Jiansen Zhao. " *Real-time Visual Ship tracking with Scale-adaptive Kernerlized Correlation Filter*" Ocean Engineering, **(SCI, under review).**
4. **Xinqiang Chen**, Shubo Wu, Chaojian Shi, Yanguo Huang, Yongsheng Yang, Ruimin Ke, Jiansen zhao." Short-Term Traffic Flow Prediction via an Ensemble Framework with Data Denoising Scheme and ANN" IEEE Sensors Journal, **(SCI, under review).**
5. **Xinqiang Chen,** Huixing Chen, Yongsheng Yang, Huafeng Wu, Pengwen Xiong, Wenhui Zhang. " *Short-term traffic flow prediction via an Ensemble Data Denoising and Deep learning Framework* " IEEE ACCESS, **(SCI, under review).**
6. **Xinqiang Chen,** Jun Ling, Yongsheng Yang, Hailing Zheng, Pengwen Xiong, Jiangfeng Xian. " *Ship Trajectory Restoration from AIS sensory data via Data Quality Control and Prediction* " IEEE ACCESS, **(SCI, under review).**
7. **Xinqiang Chen,** Jun Ling, Lei Qi, Yongsheng Yang, Yamin Zou. " *Multi-Targets Ship Tracking via a Multi-Dimension Features Fusion and Scale Estimation* " Computer Engineering and Applications, **(under review).**
8. Junjie Fu, **Xinqiang Chen\*,** Shubo Wu, Chaojian Shi, Yongsheng Yang, Jiangfeng Xian. " *Ship Detention Situation Prediction via Optimized Analytic Hierarchy Process and Naive Bayes Model* " Mathematical Problems in Engineering, **(SCI, under review).**

**部分申请及授权发明专利：**

1. **陈信强**，齐雷，杨勇生等. 一种基于YOLO模型的船舶行为分析方法，申请号：201910881856.7 (**发明专利).**
2. **陈信强**，许学谦，杨勇生等. 一种船舶跟踪方法及系统，申请号：201910772802.7 **(发明专利).**
3. **陈信强**，陈辉兴，杨勇生等，一种车头时距建模方法及一种最小绿灯时间计算方法，申请号：201910461276.2 (**发明专利).**
4. **陈信强**，赵建森，吉文博等. 一种船舶跟踪方法，申请号：201810890137.7 **(发明专利).**
5. **陈信强**，吉文博，杨勇生等. 基于Canny算子和高斯形态学的船舶检测方法，申请号：201810967927.0 **(发明专利).**
6. **陈信强**，杨勇生，吴华锋等. 一种级联式由粗到静的卷积神经网络船舶类型识别方法，申请号：201811025411.0 **(发明专利).**
7. 吴华锋，**陈信强**等. 基于WSN构建的船舶驾驶台火灾监控系统，专利号：CN201110276308.5 **(发明专利).**

**科研项目：**

1. 上海市教委，上海高校青年教师培养资助计划，2019，主持.
2. 上海海事大学，国际专利（PCT）培育基金，2019，主持.
3. 国家自然科学基金青年科学项目，51709167，船载北斗多面化、可控式四臂螺旋天线阵列性能调控机理研究，2018/01-2020/12，22万，在研，参加.
4. 国家自然科学基金面上项目，51579143，基于海浪遮蔽效应模型的海洋传感网三维动态协同定位机制，2016/01-2019/12，63万，在研，参加.
5. 国家自然科学基金面上项目，51279099，海上搜救无线传感王的动态拓扑及时空随机覆盖机理研究，2013/01-2016/12，80万，已结题，参加.
6. 交通部应用基础研究项目，2013329810300，无线传感网在海上搜救应用中的鲁棒路由算法研究，2013/04-2015/05，已结题，参加.
7. 上海市“曙光学者”人才计划项目，12SG40，基于无线传感网的海上搜救目标定位关键技术研究，2013/01-2015/01,15万，已结题，参加.
8. 上海市自然科学基金重点项目，12ZR141250，无线传感网在海上搜救中的应用及其拓扑研究，2012/07-2015/06,10万，已结题，参加.
9. 上海市教委科研创新项目，09YZ247，构建移动水下传感网络关键技术研究，2008/12-2011/12，15万，已结题，参加.
10. 美国联邦公路局资助项目：Highway Grade Characterization and Operating Efficiency Methods, Tools and Data Development，36万（美金），已结题，参加.

**部分学术荣誉及兼职：**

* 美国交通运输研究委员会（TRB）AW010(3) 分委会成员（AW010(3) Subcommittee on Port Performance）
* 第十三届全国交通运输领域青年学术会议优秀论文（10%）
* 2018年度上海海事大学研究生优秀成果二等奖
* ESCI国际期刊 Journal of King Saud University-Computer and Information Sciences 杰出审稿人.
* 2018年第二届世界交通运输大会水运学部技术委员会委员.
* 2018年International Conference on Data Science and Business Analytics（ICDSBA 2018）国际会议技术委员会委员.
* 2018年International Conference on Sensing and Instrumentation in IoT Era (ISSI 2018) 国际会议技术委员会委员.
* 2018 年第三届International Conference on Electrical, Control and Automation Engineering (ECAE2018) 国际会议技术委员会委员.
* 国际期刊Journal of Shipping and Ocean Engineering编委.
* 国际期刊International Journal of Transportation Engineering and Technology编委.
* 国际期刊SCIREA Journal of Traffic and Transportation编委.
* 国际期刊IEEE Transactions on Intelligent Transportation Systems (SCI) 审稿人.
* 国际期刊IEEE Transactions on Neural Networks and Learning Systems (SCI) 审稿人.
* 国际期刊Maritime Policy & Management (SCI) 审稿人.
* 国际期刊 IET Intelligent Transportation Systems (SCI) 审稿人.
* 国际期刊 Journal of Transportation Engineering, Part A: Systems (SCI) 审稿人.
* 国际期刊 Journal of Navigation (SCI) 审稿人.
* 国际期刊 The Computer Journal (SCI) 审稿人.
* 国际期刊 Physica A: Statistical Mechanics and Its Applications (SCI) 审稿人.
* 国际期刊 PLoS ONE (SCI) 审稿人.
* 国际期刊 IEEE ACCESS (SCI) 审稿人.
* 国际期刊 Journal of Advanced Transportation (SCI) 审稿人.
* 国际期刊 Sustainability (SCI) 审稿人.
* 国际期刊Journal of Intelligent Transportation Systems Technology, Planning, and Operations (SCI) 审稿人.
* 国际期刊 Journal of Transport and Land Use (SCI) 审稿人.
* 国际期刊 Sensors (SCI) 审稿人.
* 国际期刊 IEEE Sensors Journal (SCI) 审稿人.
* 国际期刊 Entropy (SCI) 审稿人.
* 国际会议 TRB (ABJ50 committee) 审稿人.
* 国际会议TRB (ADB20 committee)审稿人.
* 国际会议TRB (ABJ70 committee)审稿人.
* 国际会议COTA International Conference of Transportation Professionals (CICTP 2017, CICTP 2018, CICTP 2019, CICTP 2020) 审稿人.
* 国际会议International Conference on Sensing and Instrumentation in IoT Era (ISSI 2018, ISSI 2019) 审稿人.