

# Xiaojun Mei

Address: 1550 Haigang Ave., Shanghai, P.R. China  
Email: 1) xjmei94@163.com, and 2) xiaojun.mei@ieee.org  
Phone: (+86) 15000028331



## EDUCATION

---

- 2018.09 - present Shanghai Maritime University (PhD)  
Major: Traffic information engineering and control  
Advisor: Huafeng Wu, Pro. Dr.
- 2019.09 – 2020.09 University of Lisbon (Visiting PhD student)  
Major: Control science  
Advisor: Antonio M. Pascoal, Associate Pro. Dr.
- 2016.09 – 2018.07 Shanghai Maritime University (Master)  
Major: Vehicle operation engineering  
Advisor: Huafeng Wu, Pro. Dr.
- 2015.02 – 2015.06 Mokpo Maritime University (Visiting B.A. student)  
Major: Navigation technology
- 2012.09 – 2016.07 Shanghai Maritime University (Bachelor)  
Major: Navigation technology

## RESEARCH INTERESTS

---

- Localization technology in WSNs and UWSNs
- Path planning for AUVs/ASVs
- Target localization
- Estimation and optimization

## PUBLICATION

---

### PEER-REVIEWED JOURNAL ARTICLES

1. **X. Mei**, H. Wu, and J. Xian, “Matrix Factorization based Target Localization via Range Measurements with Uncertainty in Transmit Power,” *IEEE Wirel. Commun. Lett.*, pp. 1–1, 2020.
2. **X. Mei**, H. Wu, N. Saeed, T. Ma, J. Xian, and Y. Chen, “An Absorption Mitigation Technique for Received-Signal-Strength-Based Target localization in Underwater Wireless Sensor Networks”, *Sensors*, vol. 20, no. 17, p. 4698, 2020.

3. **X. Mei**, H. Wu, J. Xian, B. Chen, H. Zhang, and X. Liu, "A Robust, Non-Cooperative Localization Algorithm in the Presence of Outlier Measurements in Ocean Sensor Networks," *Sensors*, vol. 19, no. 12, p. 2708, 2019.
4. H. Wu, **X. Mei**, X. Chen, J. Li, J. Wang, and P. Mohapatra, "A novel cooperative localization algorithm using enhanced particle filter technique in maritime search and rescue wireless sensor network.," *Isa Trans.*, 2018.
5. **X. Mei**, H. Wu, Y. Chen, and E. Jiang, "Ship tracking of wireless sensor network based on improved adaptive particle filter," *J. Shanghai Marit. Univ.*, vol. 39, no. 2, pp. 12–16, 2018.
6. J. Xian, H. Wu, **X. Mei**, Y. Zhang, H. Chen, and J. Wang, "NMTLAT: A New robust mobile Multi-Target Localization and Tracking Scheme in marine search and rescue wireless sensor networks under Byzantine attack," *Comput. Commun.*, vol. 160, pp. 623–635, 2020.
7. Y. Chen, Y. Hu, S. Zhang, **X. Mei**, and Q. Shi, "Optimized Erosion Prediction with MAGA Algorithm Based on BP Neural Network for Submerged Low-Pressure Water Jet," *Appl. Sci.*, vol. 10, no. 8, p. 2926, Apr. 2020.
8. H. Wu, J. Xian, **X. Mei**, Y. Zhang, J. Wang, J. Cao, and P. Mohapatra, "Efficient target detection in maritime search and rescue wireless sensor network using data fusion," *Comput. Commun.*, vol. 136, pp. 53–62, 2019.
9. H. Wu, Q. Meng, J. Xian, **X. Mei**, C. Claramunt, and J. Cao, "An Information Entropy Based Event Boundary Detection Algorithm in Wireless Sensor Networks," *Symmetry (Basel)*, vol. 11, no. 4, p. 537, Apr. 2019.
10. Y. Zhang, H. Wu, J. Xian, and **X. Mei**, "Adaptive Clustering Algorithm in OceanWireless Sensor Network Under Double Constraints," *Comput. Eng. Appl.*, vol. 19, no. 55, pp. 128–133, 2019.

---

## MANUSCRIPTS IN PREPARATION/SUBMITTED FOR REVIEW

---

1. **X. Mei**, H. Wu, J. Xian, and B. Chen, "RSS-based Byzantine Fault-tolerant Localization Algorithm under NLOS Environment," *IEEE Commun. Lett.* (Under review)
2. **X. Mei**, H. Wu, J. Xian, and Y. Chen, "Block Principal Pivoting-based Target Localization in Underwater Sensor Networks", *Electronics Lett.* (Under review)
3. **X. Mei**, A. Pascoal, H. Wu, and J. Xian, "Optimal Trajectories of Autonomous Surface Vehicles for Target Localization using Received-Signal-Strength under Outlier Measurements", (In preparation)
4. **X. Mei**, H. Wu, and J. Xian, "Information-driven Optimal Sensors Placement for Localization in Ocean Sensor Networks", (In preparation)

---

## CONFERENCE AND PATENT

---

### CONFERENCE

- **X. Mei**, H. Wu, J. Xian, H. Zhang, and Y. Zhang, "A Robust Localization with Outlier Measurements in Underwater Sensor Networks", Proceedings of the 2019 Academic Conference of the Chinese Acoustics Society Hydroacoustic Branch, Nanjing, China.

## ***PATENT***

- H. Wu and X. Mei, “A Cooperative Localization Method in Marine Search and Rescue Wireless Sensor Network”, CN Patent, 201710891573.1.

## **HONOR AND AWARDS**

---

- 2020      **Outstanding Research Award**  
Awarded by Shanghai Maritime University for Paper entitled: “A Robust, Non-Cooperative Localization Algorithm in the Presence of Outlier Measurements in Ocean Sensor Networks.”
- 2019      **National Study Abroad Fund**  
Awarded by China Scholarship Council (CSC).
- 2019      **First Class Scholarship**  
Awarded by Shanghai Maritime University, Office of Graduate Studies.
- 2018      **Principal Scholarship**  
Awarded by Shanghai Maritime University, Office of Graduate Studies.
- 2018      **Shanghai Outstanding Graduate**  
Awarded by Shanghai Municipal Education Commission.
- 2018      **Outstanding Research Award**  
Awarded by Shanghai Maritime University for Paper entitled: “A novel cooperative localization algorithm using enhanced particle filter technique in maritime search and rescue wireless sensor network.”
- 2017      **National Scholarships for Postgraduate Students**  
Awarded by National Ministry of Education.
- 2017      **Outstanding Students**  
Awarded by Shanghai Maritime University.
- 2017      **Principal Scholarship**  
Awarded by Shanghai Maritime University, Office of Graduate Studies.
- 2016      **Principal Scholarship**  
Awarded by Shanghai Maritime University, Office of Graduate Studies.

## **PROFESSIONAL AFFILIATIONS AND SERVICES**

---

- Review Editor of *Frontiers in Communications and Networks*
- Reviewer of *ISA Transactions*
- Reviewer of *International Journal of Control, Automation and Systems*
- Professional Organization Member: IEEE Member

## **PROJECTS**

---

### ***LEADERSHIP***

- Applications of Wireless Sensor Networks on Water Transportation, Grant No. 201908310079 (**Sponsored by China Scholarship Council**)
- Research on Localization in Ocean Sensor Networks in the presence of Uncertainty, Grant No. 2019YBR002 (**Sponsored by Shanghai Maritime University**)
- Research on Cooperative Localization Algorithms Based on Modified Particle Filter in Marine Monitoring Wireless Sensor Networks, Grant No. 2017ycx030 (**Sponsored by Shanghai Maritime University**)

### ***PARTICIPATION***

- Three-Dimensional Dynamic Cooperative Localization Mechanism of Marine Sensor Networks Based on Wave Shadowing Effect Model, Grant No. 51579143 (**Sponsored by Natural Science Foundation of China**)
- Coastal Meteorological Monitoring and Warning System Based on Buoy Internet of Things and Its Navigation Aid Application, Grant No. 18040501700 (**Sponsored by Shanghai Science and Technology Development Foundation**)
- Key technical research on positioning based wireless sensor networks and target search and rescue at sea, Grant No. 12SG40 (**Sponsored by Shanghai Science and Technology Committee**)