

# Ni Sheng



Position : Professor/Dean  
Faculty : School of Business / Macau  
Environmental Research Institute  
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**Research Area:** Environmental Management and Policy,  
Low-Carbon Circular Economy

**(Recruiting Postdoctoral Fellow / Research Associate/  
graduate students in Low-Carbon Circular Economy / Solid  
Waste Management)**

**Teaching Area:** Statistics, Decision Modeling, Operations  
Management

## **Academic Qualification**

2006 - 2007 Postdoctoral Scholar / University of California, Berkeley  
2002 - 2005 PhD / The University of Hong Kong  
1998 - 2000 MEng / Nanyang Technological University, Singapore  
1991 - 1995 BSc / Civil Engineering / Zhejiang University

## **Working Experience**

2022 - Present Dean / School of Business / Macau University of Science and Technology  
2020 - 2022 Executive Vice Dean / School of Business / Macau University of Science and  
Technology  
2018 - 2020 Vice Dean / School of Business / Macau University of Science and Technology  
2013 - 2018 Assistant Dean / School of Business / Macau University of Science and  
Technology  
2007 - Present Assistant Professor / Associate Professor / Professor / Macau University of  
Science and Technology  
2005 - 2006 Research Associate / The University of Hong Kong  
2000 - 2002 Research Engineer / Data Storage Institute, National University of Singapore

### **Recent Awards**

2022	The 6th Outstanding Achievement Awards for Macao Research in Humanities and Social Sciences –3rd Prize (澳門人文社會科學研究優秀成果獎論文三等獎)
2019	The 5th Outstanding Achievement Awards for Macao Research in Humanities and Social Sciences – Outstanding Prize (澳門人文社會科學研究優秀成果獎論文優異獎)
2016	Macao Science and Technology Awards - Science and Technology Progress Award - 3rd Prize (Macao SAR) 澳門科學技術獎勵 - 科技進步獎三等獎 (唯一完成人)
2014	BOC Research Excellence Award (Macau University of Science and Technology)

### **Selected Publications**

1. Wan YY, **Sheng N**, Wei XY, Su HY. Study on the spatial spillover effect and path mechanism of green finance development on China's energy structure transformation. *Journal of Cleaner Production*, 2023, 415: 137820. (SCIE, Q1)
2. Wan YY, **Sheng N**, Wei XY, Tan M, Ling JX. Effect of green finance reform and innovation pilot zone on improving environmental pollution: an empirical evidence from Chinese cities. *Environmental Science and Pollution Research*, 2023, published online. (SCIE, Q1)
3. Dai BL, **Sheng N**, Huang J, Mu FH, Chen X, Li T, Xu JM, He YL. Inland waterway traffic noise prediction model: a comparison. *International Journal of Environmental Science and Technology*, 2023, published online. (SCIE, Q3)
4. Zhang ZK, **Sheng N**, Zhao DQ, Cai KH, Yang GM, Song QB. Are residents more willing to buy and pay for electric vehicles under the “carbon neutrality”? *Energy Reports*, 2023, 9: 510-521. (SCIE, Q2)
5. Wan YY, **Sheng N**. Clarifying the relationship among green investment, clean energy consumption, carbon emissions, and economic growth: a provincial panel analysis of China. *Environmental Science and Pollution Research*, 2022, 29(6): 9038-9052. (SCIE, Q1)
6. Hsiao YL, **Sheng N**, Fu SZ, Wei XY. Evaluation of contagious effects of China's wind power industrial policies. *Energy*, 2022, 238: 121760. (SCIE, Q1)
7. Cai KH, Xie YF, Song QB, **Sheng N**, Wen ZG. Identifying the status and differences between urban and rural residents' behaviors and attitudes toward express packaging waste management in Guangdong Province, China. *Science of the Total Environment*, 2021, 797: 148996. (SCIE, Q1)
8. Hsiao YL, Wei XY, **Sheng N**, Shao CW. A joint test of policy contagion with application to the solar sector. *Renewable & Sustainable Energy Reviews*, 2021, 141:110762. (SCIE, Q1)

9. Chen C, Yao Z, Wen ZG, **Sheng N**. Impact of city characteristics on its phosphorus metabolism in the bay area: A comparative analysis of cities in the Greater Bay Area of China. *Journal of Cleaner Production*, 2021, 286:124925. (SCIE, Q1)
10. Hsiao YL, Ai D, Wei XY, **Sheng N**. The contagious effect of China's energy policy on stock markets: The case of the solar photovoltaic industry. *Renewable Energy*, 2021, 164:74-86. (SCIE, Q1)
11. Hsiao YL, Ou YL, **Sheng N**, Wei XY. Measuring contagion effects of nuclear energy policies and events. *International Journal of Energy Research*, 2021, 45:11510-11525. (SCIE, Q1)
12. Chen H, Li XY, Lu XR, **Sheng N**, Zhou W, Geng HP, Yu SW. A multi-objective optimization approach for the selection of overseas oil projects. *Computers & Industrial Engineering*, 2021, 151:106977. (SCIE, Q1)
13. Dai BL, **Sheng N**, Zhao W, Mu FH, He LY. Evaluation of urban inland waterway traffic noise using a modified Nord 2000 prediction model. *Environmental Research*, 2020, 185: 109437. (SCIE, Q1)
14. Wei XY, Che HY, **Sheng N**, Hsiao CYL, Tong Q, Yan GY. Research on the development status of China's renewable energy industry - The impact of capital structure on company performance. *Frontiers in Energy Research*, 2020, 8: 71. (SCIE, Q3)
15. Hsiao CYL, Lin WS, Wei XY, Yan GY, Li SQ, **Sheng N**. The impact of international oil prices on the stock price fluctuations of China's renewable energy enterprises. *Energies*, 2019, 12: 4630. (SCIE, Q3)
16. Dai BL, **Sheng N**, He YL, Mu FH, Xu JM, Zhu AF. Development of an inland waterway traffic noise prediction model considering water surface adsorption and embankment shielding influences. *International Journal of Environmental Science and Technology*, 2019, 16: 5927-5936. (SCIE, Q3)
17. Zhu LC, Song QB, **Sheng N**, Zhou X. Exploring the determinants of consumers' WTB and WTP for electric motorcycles using CVM method in Macau. *Energy Policy*, 2019, 127: 64-72. (SSCI/SCIE, Q1)
18. **Sheng N**, Tang UW, Grydehoj A. Urban morphology and urban fragmentation in Macau, China: island city development in the Pearl River Delta megacity region. *Island Studies Journal*, 2017, 12: 199-212. (SSCI, Q3)
19. **Sheng N**, Zhou X, Zhou Y. Environmental impact of electric motorcycles: Evidence from traffic noise assessment by a building-based data mining technique. *Science of the Total Environment*, 2016, 554: 73-82. (SCIE, Q1)
20. **Sheng N**, Tang UW. The first official city ranking by air quality in China - A review and analysis. *Cities*, 2016, 51: 139-149. (SSCI, Q1)

21. Dai BL, **Sheng N**, He YL, Xu JM, Zhu AF. An inland waterway traffic noise prediction model for environmental assessment in China. *International Journal of Environmental Science and Technology*, 2016, 13: 1235-1244. (SCIE, Q3)
22. Choy KL, **Sheng N**, Lam HY, Lai IKW, Chow KH, Ho GTS. Assess the effects of different operations policies on warehousing reliability. *International Journal of Production Research*, 2014, 52: 662-678. (SCIE, Q1)
23. **Sheng N**, Tang UW. Zhuhai. *Cities*, 2013, 32: 70-79. (SSCI, Q1)
24. **Sheng N**, Tang UW. Risk assessment of traffic-related air pollution in a world heritage city. *International Journal of Environmental Science and Technology*, 2013, 10: 11-18. (SCIE, Q3)
25. **Sheng N**, Tang UW. A building-based data capture and data mining technique for air quality assessment. *Frontiers of Environmental Science & Engineering*, 2011, 5: 543-551. (SCIE, Q4)
26. Tang UW, **Sheng N**. Macao. *Cities*, 2009, 24: 220-231. (SSCI, Q1)
27. **Sheng N**, Li SF. A multi-scale non-equilibrium molecular dynamics algorithm and its applications. *International Journal of Applied Mechanics*, 2009, 1: 405-420. (SCIE)
28. Li SF, **Sheng N**. On multiscale non-equilibrium molecular dynamics simulations. *International Journal for Numerical Methods in Engineering*, 2010, 83(8-9): 998-1038. (SCIE)
29. Wu D, Lo SH, **Sheng N**, Sze KY. Universal three-dimensional connection hexahedral elements based on hybrid-stress theory for solid structures. *International Journal for Numerical Methods in Engineering*, 2010, 81(3): 307-334. (SCIE)
30. **Sheng N**, Li SF. A non-equilibrium multiscale simulation of shock wave propagation. *Mechanics Research Communications*, 2008, 35: 10-16. (SCIE)
31. Li SF, **Sheng N**, Liu XH. A non-equilibrium multiscale simulation paradigm. *Chemical Physics Letters*, 2008, 451: 293-300. (SCIE)
32. Liu XH, Li SF, **Sheng N**. A cohesive finite element for quasi-continua. *Computational Mechanics*, 2007, 42: 543-553. (SCIE)
33. **Sheng N**, Sze KY, Cheung YK. Trefftz solutions for piezoelectricity by Lekhnitskii's formalism and boundary-collocation method. *International Journal for Numerical Methods in Engineering*, 2006, 65: 2113-2138. (SCIE)
34. **Sheng N**, Sze KY. Multi-region Trefftz boundary element method for fracture analysis in plane piezoelectricity. *Computational Mechanics*, 2006, 37: 381-393. (SCIE)
35. Sze KY, **Sheng N**. Polygonal finite element method for nonlinear constitutive modeling of polycrystalline ferroelectrics. *Finite Elements in Analysis & Design*, 2005, 42: 107-129. (SCIE)
36. Jin WG, **Sheng N**, Sze KY, Li J. Trefftz indirect methods for plane piezoelectricity. *International Journal for Numerical Methods in Engineering*, 2005, 63: 139-158. (SCIE)

## ***Research Projects***

- 2023 - 2026      Researches on Metabolic Mechanism of Multi-source Solid Waste and its Reduction Routine Optimization of Pollution and Carbon Emissions in Guangdong-Hong Kong-Macao Greater Bay Area (Funded by FDCT-NSFC, Principal Investigator)
- 2017 - 2018      Island City Land Reclamation and Urban Fragmentation in Macau (Funded by Faculty Research Grant, M.U.S.T., Principal Investigator)
- 2013 - 2015      High-Resolution Traffic Noise Mapping in the Macao Peninsula (Funded by FDCT, Principal Investigator)
- 2014 - 2015      Road Traffic Noise Prediction Model for Macao (Funded by Faculty Research Grant, M.U.S.T., Principal Investigator)
- 2012 - 2013      Impacts of Environmental Elements on Residential Property Values in Macao (Funded by Macau Foundation, Principal Investigator)
- 2012 - 2013      Survey for Residential Status in the Neighborhood of Kou Lou (Project commissioned by the Land, Public Works and Transport Bureau, Macao SAR)
- 2010 - 2011      Survey for Residential Status in the Neighborhood of Barra (Project commissioned by the Land, Public Works and Transport Bureau, Macao SAR)
- 2010 - 2011      Public Environmental Awareness Survey in Macao (Project commissioned by the Environmental Protection Bureau, Macao SAR)
- 2009 - 2010      Survey for Residential Status in the Neighborhood of Ha Wan (Project commissioned by the Land, Public Works and Transport Bureau, Macao SAR)
- 2009 - 2010      Environmental Economic Assessment of Macao Light Rail Transit System (Project commissioned by the Transportation Infrastructure Office, Macao SAR)