



## PROF. ZAILI YANG

### PERSONAL INFORMATION

<b>Address</b>	School of Engineering, Technology and Maritime Operations Liverpool John Moores University, L3 3AF, UK
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<b>Website</b>	<a href="https://www.ljmu.ac.uk/about-us/staff-profiles/faculty-of-technology-and-environment/engineering-technology-and-maritime-operations/zaili-yang">https://www.ljmu.ac.uk/about-us/staff-profiles/faculty-of-technology-and-environment/engineering-technology-and-maritime-operations/zaili-yang</a>
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### QUALIFICATIONS AND PROFESSIONAL MEMBERSHIP

<b>PhD</b>	Risk Assessment and Decision Making of Container Supply Chains Liverpool John Moores University, UK (10/2003-01/2007)
<b>MSc</b>	International Transport Cardiff University, UK (09/2001-07/2003)
<b>BEng (Hons)</b>	Maritime Transport Dalian Maritime University, China (9/1997-07/2001)
<b>CEng</b>	Engineering Council (UK) (05/2013-date)
<b>Fellow</b>	Institute of Maritime Engineering, Technology and Science (IMarEST) (04/2013-date)
<b>Founding Director</b>	International Association of Transport, Trade, and Service Studies (06/2012-date)
<b>Member</b>	International Association of Maritime Economics (IAME) (07/2011-date)

### EMPLOYMENT HISTORY

8/2014 – date	<b>Professor of Maritime Transport</b> School of Engineering, Technology and Maritime Operations. Liverpool John Moores University, UK.
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2/2012 – date	<b>Co-Director</b> Liverpool LOGistics, Offshore and Marine (LOOM) Research Institute. Liverpool John Moores University, UK.
8/2010 – 7/2014	<b>Reader in Maritime Transport</b> School of Engineering, Technology and Maritime Operations. Liverpool John Moores University, UK.
9/2007 – 7/2010	<b>Lecturer/Senior Lecturer</b> School of Engineering, Technology and Maritime Operations. Liverpool John Moores University, UK.
8/2006 – 8/2007	<b>Postdoctoral Research Assistant</b> School of Engineering, Technology and Maritime Operations. Liverpool John Moores University, UK.
9/2006- 5/2007	<b>Sessional Lecturer</b> School of Engineering, Technology and Maritime Operations. Liverpool John Moores University, UK.
12/2015- date	<b>Visiting Professor</b> <i>Shipping Management College.</i> <i>Dalian Maritime University, China.</i>
10/2015- date	<b>Associate</b> <i>Manitoba University Transport Institute</i> <i>Manitoba University, Canada.</i>

## **RESEARCH PROFILE**

- Authored and co-authored 190 refereed publications (8 best paper awards), including 3 books, 12 book chapters, 3 SCI-cited editorials, 83 journal papers (65 SCI/SSCI cited), and 92 conference papers.
- Authored and co-authored over 30 non-refereed publications, including keynote and plenary presentations.
- Completion of supervision of 6 postdoctoral researchers (4 as the principal supervisor).
- Completion of supervision of 20 visiting scholars (12 as the principal supervisor).
- Completion of supervision of 16 PhD and 1 MPhil students (7 as the principal supervisor).
- 14 PhD students under supervision (8 as the principal supervisor).
- Research grants received from external funding bodies such as EU and UK research councils, totalling over £15m (approx. £2m as the principal investigator).
- Collaborative research with many industrial companies (e.g. Maersk Line and AECOM Group) and leading universities.

## **ESTEEM INDICATORS**

*Evaluator/assessor/panel members of national research councils (or equivalent) and international associations*

- Advisor of the UK Government for Science on “Future of the Sea” programme (2016).
- Member of the UK EPSRC Peer Review College (2016-date)
- Evaluator/overseas expert of the Romanian National Council for Scientific Research (2016-2020).
- Evaluator of the UK Economics and Social Science Research council (ESRC) (2015)

- Evaluator of the Natural Science Foundation, USA (2015)
- Evaluator of Chinese Communications and Transport Association (2015)
- Evaluator of Norwegian National Research Council (2013-2014).
- Evaluator of the Romanian National Council for Scientific Research (2011-2013).

*Member/co-chairman of technical/scientific/organisational/steering/advisory committees of international conferences*

- Member of Programme Committee of International Conference on Quality, Reliability, Maintainability and Safety (QR2MSE), 2011 - 2017.
- Member of Programme Committee of IEEE International Conference on Systems, Man, and Cybernetics 2014 - 2017.
- Member of International Steering Committee of IEEE International Conference on Logistics, Informatics and Service Sciences, 2015 - 2016.
- Member of Programme Committee of International Conference on Reliability, Infocom Technologies and Optimization (ICRITO), 2010 - 2016 (except 2012).
- Member of Advisory Board of World Congress of Ocean (WCO), 2013 - 2016.
- Member of Technical Programme Committee of International Workshop on Modeling, Computing and Data handling for Marine Transportation (MCDMT), 2015 - 2017.
- Member of the Scientific Advisory Board for the AHFE Digital Human Modeling & Human Factors, 2015- 2017.
- Member of Scientific Committee of International Association of Maritime Economics Conference (IAME), 2014 – 2017 (except 2016).
- Member of Organisation Committee of 3rd International Conference on Design and production Engineering, December 03-04, 2018 in Valencia, Spain.
- Member of Technical Committee of the 6th International Conference on Traffic and Logistic Engineering (ICTLE 2018), Aug. 3-5, 2018, Bangkok, Thailand.
- Member of Scientific Committee of the 4<sup>th</sup> International Conference on Projects and Logistics, 28-29 June, 2018, Hull, the UK.
- Co-Chairman of International Conference of Integrated Container Supply Chains, 4-8 November, Ningbo, China.
- Member of the Programme Committee of the 12th International Conference on Reliability, Maintainability and Safety, October 17-19, 2018, Shanghai, China.
- Member of the International Steering Committee of the conference of Made in China 2025, One Belt One Road Initiative and Its implication on the East Asian Economy and Logistics, June 23-24, 2017 Incheon, South Korea.
- Member of the Technical Programme Committee of 12th System of Systems Engineering Conference (SoSE), June 18-21, 2017 Hawaii, USA.
- Member of the Technical Programme Committee of the 4<sup>rd</sup> International Conference on Transportation Information and Safety (ICTIS), 8-10 August 2017, Alberta, Canada.
- Member of Water Transport Committee of World Transport Convention (WTC), June 4 – 6, Beijing, China, 2017.
- Member of Scientific Committee of International Conference on One Belt One Road, Melbourne, Australia, December 1-2, 2016.
- Member of Technical Programme Committee of International Conference on Technology and Engineering Management (ICTEM 2016), Aug. 16-18, San Francisco, USA, 2016.

- Member of International Advisory Committee for the Collaborative Conference on Ocean Sciences (CCOS 2016), 13-16 June, Qingdao, China, 2016.
- Member of International Scientific Committee of International Conference on Applied Mathematics, Simulation and Modelling (AMSM2016), 28-29 May, Beijing, China, 2016.
- Member of International Scientific Committee of International Conference on Electronic, Mechanical and Industrial Engineering, 24-25 April, Phuket, Thailand, 2016.
- Member of Technical Committee of International Conference on Mechanical Automation and Control Engineering (ICMACE2016), 27-29 February, Phuket, Thailand, 2016.
- Member of International Steering Committee of International Conference on The Silk Road Economic Belt and the 21<sup>st</sup> Century Maritime Silk Road for Transportation and Global Supply Chain, 30 November to 2 December, Melbourne, Austrian, 2016.
- Member of International Advisory Committee for the Collaborative Conference on Ocean Sciences (CCOS 2016), 13 – 16 June, Qingdao, China, 2016.
- Member of Programme Committee of 11th World Congress on Engineering Asset Management (WCEAM) (adjunct to QR2MSE 2016), 25 – 28 July, Jiuzhaigou, China, 2016.
- Member of International Steering Committee of International Conference on Global Integration of Economies and Connectivity Development” in collaboration with Asian Logistics Round Table (ALRT) 2015.
- Member of Programme Committee of Collaborative Production and Logistics Integration in Global Supply Chain Networks and Improvement of Third Party Logistics Services (SPRINGER-COLL-3PLS-2014), 2014-2015.
- Co-Chairman of the 3<sup>rd</sup> International Conference on Transportation Information and Safety (ICTIS), 28-30 June 2015, Wuhan, China.
- Sessional Chairman of Global Port Research Alliance Conference (GPRA), 21-22 May, Hong Kong, 2015.
- Co-chairman of Maritime Logistics Symposium in Shanghai World Expo, Shanghai, China, August 18-19, 2010.
- Member of TPC and session chairman of the 8<sup>th</sup> International Conference on Reliability, Maintenance and Safety (ICRMS), Chengdu, China, July 21-25, 2009.
- Member of TPC and session chairman of the 4<sup>th</sup> International Conference on Quality, Reliability, and Infocom Technology (ICQRIT), Delhi, India, December 18-20, 2009.
- Member of Organising Committee of the 10<sup>th</sup> Chinese Automation and Computing Society conference in the UK (CACSUk), Liverpool, UK, September 18, 2004.

#### **MEMBERSHIP OF EDITORIAL ADVISORY BOARDS**

- Member of Editorial Board of European Journal of International Management (2017-date) (SSCI-cited)
- Member of Editorial Board of Journal of Marine Science and Engineering (2017 – date) (ESCI-cited).
- Member of Editorial Board of Journal of Transportation Research Part E: Logistics and Transportation Review (2017- date) (SCI-cited).
- Associate Editor of Journal of International Logistics and Trade (2017 – date).
- Member of Editorial Board of Journal of Transport Information and Safety (2016 – date).
- Member of Editorial Board of Journal of Traffic and Transportation Engineering (English Edition) (JTTE) (2016 - date).

- Member of Editorial Board of Asia-Pacific Journal of Business & Commerce (2016 – date).
- Member of Journal of Korean Trade (2016 – date).
- Editorial Board of Members (EBM) of Asian Social Science (2015 - date).
- Section Associate Editor of the Maritime Economist (2014 - date).
- Member of Editorial Board of Journal of Traffic and Transportation Engineering (JTTE) (2014 - date).
- Member of Editorial Board of Shocks and Vibrations (S&V) (2013 - 2017) (SCI-cited).
- Associate Editor of IMA Journal of Management Mathematics (JMM) (2013 - date) (SCI-cited).
- Member of Editorial Board of Asian Journal of Shipping and Logistics (AJSL) (2013 - date) (ESCI-cited).
- Member of Editorial Board of Advanced Shipping and Ocean Engineering (ASOE) (2012 - date).
- Member of Editorial Board of Engineering Management Research (EMR) (2012-2015).
- Member of Editorial Board of International Journal of Marine Science and Engineering (IJMSE) (2011- date).
- Member of Editorial Board of Journal of Shipping and Ocean Engineering (JSOE) (2011- date).
- Guest Editor of Advances in Human-Computer Interaction (AHCI) (2018-2019) (SCI-cited).
- Guest Editor of International Journal of Shipping and Transport Logistics (IJSTL) (2016-2018) (SCI-cited).
- Guest Editor of Transportation Research Part E: Logistics and Transport Review (TRE) (2015-2017) (SCI-cited).
- Guest Editor of Transportation Research Part D: Transport and Environment (TRD) (2014-2016) (SCI-cited).
- Guest Editor of Growth and Change: An International Journal (G&C) (2012-2015) (SSCI-cited).

## **REFEREEING/REVIEWING EXPERIENCE**

### *Books*

- Sustainable Port Clusters and Economic Development by Palgrave Macmillan in 2017
- Transport Node System by Elsevier in 2016
- Maritime Security by Elsevier in 2015
- Management of Maritime Regulations by Routledge in 2014

### *Journals*

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|--|---|
| • Accident Analysis & Prevention               | • International Journal of Risk Assessment and Management |
| • Ain Shams Engineering Journal                | • International Journal of Systems Science                |
| • Applied Mathematical Modelling               | • International Journal of Transport Economics            |
| • Applied Soft Computing                       | • International Journal of Transport Geography            |
| • Asian Journal of Shipping and Logistics      | • Journal of Aerospace Information Systems                |
| • Asia-Pacific Journal of Operational Research | • Journal of Engineering and Technology Research          |
| • Asian Social Science                         | • Journal of Engineering for the Maritime Environment     |
| • Expert Systems with Applications             | • Journal of Marine Science and Application               |
|  | • Journal of Marine Science and Technology                |
|  | • Journal of Mechanical Science and Technology            |

- Engineering Economist
- Engineering Research Management
- European Journal of Operations Research
- Growth and Change
- IEEE Transactions on Fuzzy Systems
- IEEE Transactions on Intelligent Transportation Systems
- IEEE Transactions on Reliability
- IEEE Transactions on Systems, Man and Cybernetics: Systems
- IIE Transactions
- IMA Journal of Management Mathematics
- International Journal for Applied Industrial Engineering
- International Journal for Automation and Computing
- International Journal of Computational Intelligence Systems
- International Journal of Economic and Business Management
- International Journal of Information Technology and Decision Making
- International Journal of Logistics
- International Journal of Logistics Systems and Management
- International Journal of Naval Architecture and Ocean Engineering
- International Journal of Production Research
- International Journal of Shipping and Transport Logistics
- International Journal of Small Craft Technology
- Journal of Ocean University of China
- Journal of Risk and Reliability
- Journal of Shipbuilding Engineering Research
- Journal of Shipping and Ocean Engineering
- Journal of the Operational Research Society
- Journal of Traffic and Transportation Engineering
- Journal of Transport Safety and Security
- Knowledge Based System
- Maritime Policy & Management
- Ocean Engineering
- Ocean Policy Research
- PLOS ONE
- Polar Geography
- Quality and Reliability Engineering International
- Reliability Engineering and System Safety
- Research in Transportation Business & Management
- Risk Analysis
- Shock and Vibration
- Sustainability
- Transport Policy
- Transportation Research A: Policy & Practice
- Transportation Research D: Environment
- Transportation Research E: Logistics and Transportation Review
- Tourism Today
- World Review of Science, Technology and Sustainable Development

### *Conferences*

- Asian Logistics Round Table Conference
- European Safety and Reliability Association Conference
- IEEE Transactions Conference on Systems, Man and Cybernetics: Systems
- IEEE International Conference on Logistics, Informatics and Services Sciences
- International Association of Maritime Economics Conference
- International Conference on Maritime Technology and Engineering
- International Conference on Quality, Reliability, Risk, Maintenance, and Safety Engineering

- International Conference on Reliability Maintainability and Safety
- International Conference on The Silk Road Economic Belt and the 21<sup>st</sup> Century Maritime Silk Road for Transportation and Global Supply Chain
- International Conference of Transportation Professionals
- International Conference on Transportation Information and Safety
- International Forum on Shipping, Ports and Airports
- International Maritime Association of the Mediterranean Congress
- System of Systems Engineering Conference
- World Transport Convention

## **AWARDS AND FELLOWSHIP**

- 2017      **Maritime Policy & Management Best Paper Award**, paper title: ‘Use of Bayesian network for risk based port state control’, (co-authored with Yang Z.S., and Yin J.B.), awarded in International Association of Maritime Economics 2017 Conference, Kyoto, Japan, June 28-30, 2017.
- 2017      **LISS Conference Best Paper Award**, paper title: ‘A Fuzzy Rule-Based Bayesian Reasoning Approach for Risk Assessment of Petroleum Transportation Systems’, (co-authored with Alghanmi A., and Blanco-Davis E.), awarded in 7<sup>th</sup> IEEE International Conference on Logistics, Informatics and Service Sciences 2017 Conference, Kyoto, Japan, with satellite session in Beijing China, July 24-27, 2017.
- 2016      **QR2MSE Conference Best Paper Award**, paper title “Measurement and Management of KPIs under Uncertainty: A Case of Shipping Management”, (co-authored with Z.Qu, M. Asquco, I.D. Jenkinson, J. Wang), awarded in International Conference on Quality, Reliability, Maintainability and Safety, July 25-28, Jiuzhaigou, China, 2016.
- 2015      **ALRT Conference Best Paper Award**, paper title “Modelling Risk Based Cost Analysis of Port Adaptation Measures to Climate Change”, (co-authored with A.K.Y. Ng, P.T.W. Lee, T. Wang, V.S. Rodrigues, S. Pettit, I. Harris), awarded in Asian Logistics Round Table 2015 Conference, Taipei, August 30- September 1, 2015.
- 2012      **Eagle Prize**, awarded to Outstanding Potential Young Scholars in Maritime Research, awarded during IAME 2012 Conference, Taipei, September 6-8, 2012.
- 2012      **Award of NW Regional KTP of year** and finalist in KTP of year at Innovation 2012, UK (as the technical advisor of the project).
- 2012      **Maritime Policy & Management Best Paper Award** – 1st Runners Up, paper title: ‘Modeling port choice in an uncertain environment’, (co-authored with Yeo G.T., Ng A.K.Y. and Lee P.T.W.).
- 2011      **Highly Commended Paper Award** from Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, paper title: ‘A new fuzzy evidential reasoning method for risk analysis and control of a liquefied natural gas carrier system’ (co-authored with Nwaoha T.C., Wang J., Bonsall S.).
- 2010      **Research Award** for outstanding contributions to scholarship and research in Maritime Operation Safety and Risk Analysis, conferred by the University of Lingaya through ICRITO.
- 2009      **Highly Commended Paper Award** from Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, paper title: ‘Incorporating uncertainty and multiple criteria in vessel selection’ (co-authored with Maistralis L.,

Bonsall S. and Wang J.).  
 2009 **University Promising Research Fellowship** by LJMU.  
 2009&2008 **Faculty Research Award** twice at LJMU.  
 Before 2007 Several awards including **Stanley Gray Fellowship** (2004-2006) awarded by the Institute of Maritime Engineering, Science and Technology (IMarEST), Excellent Graduate Award of Liaoning Province (China), Conference Best Paper Awards and Nomination of Best Maritime PhD Thesis Award, etc.

## **PHD EXAMINATION**

- **Nanyang Technological University (Singapore)**, Vulnerability Assessment of Ports and Industrial Clusters against Catastrophes, 2018.
- **University of Aberdeen**, Integrated Reliability and Optimisation analysis combining both human and facility factors, 2018.
- **RMIT University (Australia)**, Global Seaport Competitiveness: A Resource Management Perspective, 2018.
- **University of Reading**, Investment, Financing and Mergers & Acquisitions in the Shipping Industry, 2018.
- **University of Plymouth**, An examination of the US Container Security Initiative (CSI) and exploration of its impacts on EU Container Seaport Competition, 2017.
- **Hong Kong Polytechnic University (Hong Kong)**, Three essays on maritime accidents: review literature and duration analysis, 2017.
- **University of Liverpool**, The performance of ports on the periphery: the impact of ports supply chain integration, sustainability advantages and spatial characteristics, 2016.
- **Chalmers University of Technology**, Risk-based ship security analysis – a decision-support approach, 2015.
- **Plymouth University**, Risk management in liquefied natural gas ports and marine terminals supply chains, 2014.
- **University of Salford**, Modelling of prognostics for residual life prediction, 2012.
- **Loughborough University**, CUE-centric model of the fire ground incident commander's decision-making process (MPhil), 2011.
- **Newcastle University**, Improving maritime crisis management by the Saudi border guard, 2011.
- **Liverpool John Moores University** (internal examiner), Risk modelling and simulation of chemical supply chains using a system dynamics approach, 2016. Risk-based framework for ballast water safety management, 2010. Egyptian regional distribution centres in COMESA market, 2010.

## **INTERNAL ACADEMIC POSITIONS OF RESPONSIBILITY**

- Chair of the Faculty Research Degree Committee (FRDC) of LJMU (2017 - date).
- Deputy Chair of the Faculty Research and Scholarship Committee (FRSC) of LJMU (2017 - date).
- Member of University Research and Degree Committee (URDC) of LJMU (2017 – date).
- Programme leader for dual PhD course in Maritime Transport Engineering (2014 - date).
- Member of Faculty Research Degrees Committee (FRDC) (Faculty of Technology and Environment) of LJMU (2013 - 2017).
- Member of the Faculty Research and Scholarship Committee (FRSC) of LJMU (2013 - 2017).



- Member of the Research Degrees Committee (RDC) of Liverpool John Moores University (2017 – date).
- Alternate Member of the Research Degrees Committee (RDC) of Liverpool John Moores University (2013-2015).
- Co-Director of Liverpool Logistics, Offshore and Marine Research Institute (2012 - date).
- Coordinator of the UoA 12 submission to the UK Research Excellence Framework 2014 at LJMU (2010 - 2014).
- Programme leader for MSc course in Maritime Operations (2007-2011).

## **SUPERVISION OF RESEARCH PROJECTS**

*Completed projects as the principal supervisor (including postdoctoral, doctoral and MPhil projects)*

<b>Dr. M. Ha</b> 2012 - 2016	Port logistics performance measurement. PhD research project, partially funded by EU.
<b>Dr H. Yami</b> 2010-2016	Port safety assessment. PhD research project, funded by the Saudi Arabia Government.
<b>Dr D. Atehnjia</b> 2011-2015	Formal safety assessment of shipyards. PhD research project, funded by the Commonwealth Scholarship.
<b>Dr J.Y. Lee</b> 2011-2013	Port traffic simulation. Postdoctoral research project, funded by the EU
<b>Dr T. Nguyen</b> 2011-2013	Traffic management and optimisation in container terminals. Postdoctoral research project, funded by the EU
<b>Dr. H. Abujaafar</b> 2009 - 2012	Use of CREAM to reduce human errors in marine operations. PhD research project, funded by Libran Government.
<b>Dr T.C. Nwaoha</b> 2011 (10/2011 -01/2012)	Simulation of port environment. Postdoctoral research project, funded by the EU.
<b>Dr. B. Jones</b> 2009 - 2011	Safety and reliability of intelligent automatic vehicle. Postdoctoral research project, funded by the EU.
<b>Dr. T.C. Nwaoha</b> 2008 - 2011	Risk-based operations of LNG carriers under uncertainties. PhD research project, sponsored by LJMU.
<b>Mr. D. Gohomene</b> 2008 - 2011	An analysis of port selection in West Africa. MPhil research project, self-funded.
<b>Dr K. Subramaniam</b> 2008 - 2010	Human reliability assessment in maritime operations. PhD research project, partially sponsored by LJMU.

*Completed projects as the second/third supervisor (including postdoctoral, doctoral and MPhil projects)*

<b>Mr. D. Franks</b> 2010 - 2018	In-service support of RFA ships. Part-time PhD research project, funded by the UK MoD.
<b>Dr S. Kavakeb</b> 2015 - 2016	Transport system simulation and optimisation Postdoctoral research projects, funded by British Council.
<b>Dr S.N. Chaurasia</b> 2015 - 2017	Logistics optimisation Postdoctoral research projects, funded by UK BIS.
<b>Mr. S. Al Khatib</b> 2013 - 2016	Integrated models for selection of logistics services providers (LSPs) PhD research project, funded by the Jordan Government.
<b>Dr. N. Salleh</b> 2012 - 2015	Environment risk assessment of linear shipping. PhD research project, funded by Malaysia Government.
<b>Dr. S. Kavakeb</b> 2011 - 2015	Traffic management of container ports. PhD research project, funded by the EU.

<b>Dr. S. Pristrom</b> 2009 - 2013	Study on maritime security. Part-time PhD research project, self-funded.
<b>Dr J. Andrew</b> 2010-2013	Resilience study of container supply chains. PhD research project, funded by the EU.
<b>Dr. J. Pak</b> 2010 - 2013	Port safety and security study. (overseas project) PhD research project, funded by the Korean Government.
<b>Dr. N. Rahman</b> 2009 - 2012	Financial impact of slow steam in shipping. PhD research project, funded by Malaysia Government.
<b>Dr. E. Chukwuka</b> 2006 - 2010	Fatigue analysis of marine and offshore structures. PhD research project, self-funded.
<b>Dr. M. Lavasani</b> 2007-2010	Advanced risk assessment of gas pipeline systems. PhD research project, self-funded.
<b>Dr H. Karahalios</b> 2006 - 2009	A risk based appraisal on maritime regulations in the shipping industry. PhD research project.
<b>Dr D. Godaliyadde</b> 2005 - 2008	Application of FSA for ship hull vibration modelling. PhD research project, sponsored by IMarEST. (Act as advisor)
<b>Dr. J. Lee</b> 2002 - 2009	Use of safety case principles to VLCC/VLBC hull structure design. Part-time PhD research project. (Act as advisor)

*Completed projects as the principal supervisor (selected from over 20 visiting scholar projects)*

<b>Dr M. Tu</b> 2016-2017	Safety analysis of 21 <sup>st</sup> Maritime Silk Road. Visiting scholar project, funded by the Chinese Government.
<b>Dr Y. Li</b> 2016-2017	Logistics supplier selection. Visiting scholar project, funded by the Chinese Government.
<b>Dr A. Huang (Jan –July 2016)</b>	Optimisation of distribution centre locations. Visiting scholar project, funded by EU Marie Curie project.
<b>Dr H. Zhou</b> 2014-2015	Port risk assessment using prospective analysis. Visiting scholar project, funded by the Chinese Government.
<b>Dr Q. Shang</b> 2014 - 2015	Fault diagnosis of marine engine systems. Visiting scholar project, funded by EU Marie Curie project.
<b>Prof. H. Kim</b> 2014 - 2015	Green port development and evaluation. Visiting scholar project, funded by the Korean Maritime and Ocean University.
<b>Mr. M. Heo</b> 2013 - 2015	Maritime policy study. Visiting scholar project, funded by the Korean Ministry of Ocean and Fishery.
<b>Dr Y.T. Xi</b> 2012 (02/2011 -08/2012)	Human reliability assessment in maritime operations. Visiting scholar project, funded by the Chinese Government.
<b>Miss. J. Pak</b> 2010 - 2011	Port security assessment using system dynamics. Visiting scholar project, funded by the Incheon University.
<b>Mr. D. Zhang</b> 2010 - 2011	Navigational risk assessment and prediction in Yangzi River. Visiting scholar project, funded by the Chinese Government.

*Postdoctoral/doctoral projects under supervision (as the principal supervisor)*

<b>Mr. C. Wan</b> 2015 - 2018	Risk assessment of container supply chains. PhD (dual PhD) research project, funded by Chinese government, EU and LJMU.
<b>Mr. M. Poo</b> 2017-2020	Seaport and airport adaptation to climate change. PhD research project, funded by LJMU.
<b>Mr Steve Symes</b> 2018-2021	Marine engineers' reliability analysis using fNIS. PhD research project, funded by LJMU.
<b>Mr. Z. Yang</b>	Maritime risk assessment using gaming theory.

2015 - 2018	PhD research project, funded by LJMU and EU.
<b>Mr. M. Usman</b>	Risk based maintenance.
2014 - 2018	PhD (part-time) research project, funded by Lloyds Register and LJMU.
<b>Mr A. Atiyah</b>	Reliability of pilots on-board ships
2014 - 2017	PhD research project, funded by the Saudi Arabia Government.
<b>Mr. A. Alghanmi</b>	Maritime supply chain resilience assessment.
2013 - 2016	PhD research project, funded by the Saudi Arabia Government.
<b>Mr. W. Abdul Halim</b>	The impact of information technology in container supply chains.
2013 - 2016	PhD research project, funded by Malaysia Government.

*Postdoctoral/doctoral projects under supervision (as the 2<sup>nd</sup> or 3<sup>rd</sup> supervisor)*

<b>Mr. Hassan. Oraith</b>	Human factor analysis of marine pilots.
2016-2019	PhD research project, funded by the Libran Government.
<b>Miss. Shiqi Fan</b>	Human factor and human reliability analysis using fNIS.
2017-2020	PhD research project, funded by LJMU and Wuhan University of Technology.
<b>Mr. Panayiotis Papageorgiou</b>	Maritime security assessment.
2017-2020	PhD research project, self-funded.
<b>Mr. Gregory Asuelimen</b>	Risk Assessment for offshore seismic survey in hostile environment.
2016-2019	PhD research project, self-funded.
<b>Mr. Koh Song Sang</b>	Group route optimisation through city transport simulation
2015 - 2018	PhD research project, funded by the Red Ninja and LJMU.
<b>Miss. Ran Wang</b>	Simulation of city transport systems.
2015 - 2018	PhD research project, funded by LJMU.
<b>Miss. Tianni Wang</b>	Transport adaptation to climate change
2015 - 2018	PhD research project, funded by AECOM.
<b>Mr. M. Rahmatdin</b>	The impact on Malaysia feeder services development due to the opening of northern sea route.
2015 - 2018	PhD (overseas) research project, funded by University Malaysia Technology.

**RESEARCH GRANTS**

*External grants (as the PI)*

2018-2019	UK DfT (Department of Transport)	£55,000	<i>Cycling risk prediction</i>
2018-2020	UK EPSRC	£50,000	<i>PVC – Prioritising Vehicle Cleanliness for better air quality</i>
2018-2021	EU H2020	€189,000 (out of €1m)	<i>GOLF – Food Supply Chains.</i>
2017-2018	DfT/Mersey Travel	£16,400	<i>Cycling Safety Management</i>
2015-2018	Norwegian Research Council	£25,000	<i>SeaConAZ - Exploring the Potential for Making Sea Containers Go All the Way through the Supply Chain</i>
2015-2018	Red Ninja Ltd.	£30,000	<i>Group Route Optimisation through Simulation</i>

2015-2017	AECOM UK	£30,000	<i>Climate Adaptation in Transportation</i>
2014-2015	Korea Maritime and Ocean University	£3,000	<i>Green Ports and Port Adaptation to Climate Change</i>
2014-2016	Innovate UK (UK Technology Strategy Board)	£20,000	<i>VoyagOR - Voyage Optimal Routing in the Cloud</i>
2014-2017	Lloyds Register	£5,700	<i>Risk Based Maintenance Management</i>
2014-2015	Korean Government	\$10,000	<i>MPC - Marine Policy Comparison : The UK and Korean Cases</i>
2014-2015	EU (INTERREG IVB)	€64,000	<i>Transferability of Intelligent Autonomous Vehicles</i>
2013-2017	EU FP7 Marie Curie IRSES network	€592,000	<i>ENRICH – EU China Research Network on Integrated Supply Chains</i>
2011	Incheon University	£1,100	<i>Port Safety and Security</i>
2011	Chinese Government	£1,000	<i>Safety Analysis of Inland Waterways</i>
2010	Nuffield Foundation (NF/UBR/37833)	£1,400	<i>Use of Bayesian Network to Analyse Maritime Piracy Risk</i>
2009-2014	EU (INTERREG IVB NWE)	€1,032,000 (€7 million in total)	<i>InTraDE – Intelligent Transport for Dynamic Environment</i>
2008	Nuffield Foundation (NF/UBR/35483)	£1,400	<i>Use of Fuzzy Logic to Maritime Security Management</i>
<i>External grants (as a CoI)</i>			
2017-2020	EU (INTERREG Atlantic Area)	€404,000 (out of €3.9m)	<i>ARCWIND - Adaptation and implementation of floating wind energy conversion technology</i>
2018-2020	Royal Society	£12,000	<i>Resilience and risk of offshore wind energy generation platforms under extreme environments</i>
2017-2020	Petroleum Technology Development Fund	£15,000	<i>Quantitative Pipeline Risk Assessment</i>
2017-2018	The UK HSE	£15,000	<i>Effective collision risk management for offshore installations and ship/platform collision incident database</i>
2018-2021	EU (INTERREG Atlantic Area)	€144,000 (out of €2.22m)	<i>Atlantic Blue Port Services - Discharge polluted water in port, not at sea</i>
2016-2020	EU H2020 Marie Curie RISE network	€243,000 (out of €1.28m in total)	<i>REliability and Safety Engineering and Technology for large maritime engineering systems</i>

2016-2017	Royal Academy of Engineering	£24,000	<i>Newton research collaborations programme</i>
2015-2019	EU H2020 Marie Curie RISE network	€108,000	<i>Partnership for Research in Geopolymer Concretes</i>
2015-2017	UK BIS (Newton Fund)	£300,000	<i>Sustainable maritime logistics research UK- Vietnam</i>
2015-2016	British Council	£40,100	<i>ICT for sustaining and renovating logistics services in Vietnam, a UK-Vietnam research partnership</i>
2014-2015	UK Research Council Digital Economic Research Programme	£3,000	<i>The economic benefits of green automated vehicles in UK/North West England container terminals using simulation and analytical Techniques</i>
2014-2016	Royal Society	£12,000	<i>A case study-based collaborative investigation into inland waterway ship safety</i>
2014-2017	UK RMRI Consulting	£30,000	<i>Offshore safety case study</i>
2014-2015	CITL- Chartered Institute of Transport and Logistics	£7,800	<i>Traffic management and transport optimisation</i>
2013-2014	IAMU- International Assoc. of Maritime Universities	\$54,000	<i>Deck officers' non-technical skills (NTS) and training needs for human element</i>
2012-2015	EU (FP7-Marie Curie IRSES)	€383,000	<i>REFERENCE (Research NETwork on FLExible Risk AssEssmeNt and DeCision SciencE)</i>
2011-2014	EU (INTERREG IVB NEW)	€350,000 (€4.5 million in total)	<i>Strengthening the development of sustainable connectivity in NWE for freight and logistics with the support of ICT innovative solutions</i>
2010	EPSRC	£12,000	<i>Travel grant on Maritime Logistics Symposium</i>
2007-2010	DTI KTP (Risktec)	£122,000	<i>KTP with Risktec Solutions Ltd</i>
<i>Major internal grants as the principal investigator (contribution to the bids of external funding)</i>			
2017-2020	LJMU	£60,000	<i>PhD scholarship, leading to EPSRC/TSC/FCC funding</i>
2017-2018	LJMU	£66,000	<i>PhD scholarship, leading to Mersey Travel funding</i>

2015-2016	Faculty Pump Prime Fund	£3,000	<i>Intelligent and green transportation and food supply chains study</i>
2014-2015	Faculty Pump Prime Fund	£5,000 (Co-PI)	<i>A West-East Research Link for Optimising Maritime Transport in Container Terminals</i>
2014-2017	LJMU	£120,000	<i>PhD scholarships, leading to AMECO and Red Ninja PhD funding.</i>
2014	LJMU	£7,600	<i>Leading to a new PhD project partially funded by Lloyds Register</i>
2012	LJMU	£5,300	<i>Leading to the success of ENRICH</i>
2012	LJMU	£5,000	<i>Leading to the bid submission of DEQUAP</i>
2009	HEFCE	£5,000	<i>Contributing to the success of InTraDE</i>
2009	Faculty research funds	£2,500	<i>Leading to the success of NF/UBR/37833</i>
2008	Faculty research funds	£3,000	<i>Leading the success of NF/UBR/35483</i>

## **RESEARCH INTERESTS**

- Maritime safety assessment.
- Maritime security modelling.
- Human reliability assessment.
- Risk based maintenance modelling.
- Quantitative quality control.
- Container supply chain risk analysis.
- Risk based multiple attribute decision making.
- Uncertainty modelling.
- Port safety assessment.
- Port performance measurement.
- Port centric logistics.
- Green logistics.
- Transportation adaptation to climate change.
- Inland waterways and intermodal transport.
- Food supply chains.

## **PUBLICATIONS**

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99. **Yang Z.\***, Bonsall S., Wang J., Fang Q.G., and Yang J.B. (2005), “Subjective risk assessment of container supply chains”, *International Journal of Automation and Computing*, Vol. 2, No. 1, pp. 20-28.
100. **Yang Z.\***, Bonsall S., Wang J., and Fang Q.G., (2005), “Formal safety assessment of container line supply chains”, Archives of Transport, *Journal of Polish Academy of Science*, Vol. 17, No.3/4, pp. 255-274.
101. Fang Q.G., **Yang Z.**, Hu S.P. and Wang J. (2005), “Formal safety assessment and application of the navigation simulators for preventing human error in ship operations”, *Journal of Marine Science and Application*, Vol. 4, No. 3, pp.5-12.

*Refereed conference papers*

102. Wang T., Qu Z, Nichol T., **Yang Z.**, Dimitriu D., Clarke G. and Bowden D. (2018), “How Can the UK Road System be Adapted to the Impacts Posed by Climate Change? By Creating a Climate Adaptation Framework”, *Project Logistics Conference (PROLOG2018)*, June 28-29, Hull, UK.
103. Poo M.C.P., Dimitriu D., Qu Z., Galatioto F., Ruston C., Lee T.W. and **Yang Z.** (2018), “Prioritizing Vehicle Cleanliness (PVC) using Key Green Performance Indicators (KGPI)”, *Project Logistics Conference (PROLOG2018)*, June 28-29, Hull, UK.
104. Wang T., Qu Z, Nichol T., **Yang Z.**, Dimitriu D., Clarke G. and Bowden D. (2018), “Impacts of climate change on rail systems: A new climate risk analysis model”, *European Safety and Reliability Conference 2018 (ESREL18)*, June 17-21, Trondheim, Norway.
105. Fan S., Zhang J., Blanco-Davis E., **Yang Z.**, Wang J., Yan X. (2018), “Study on seafarers’ emotion identification during watch-keeping using bridge simulation”, *European Safety and Reliability Conference 2018 (ESREL18)*, June 17-21, Trondheim, Norway.
106. Usman M., Shorten D. and **Yang Z.** (2017), “Development of a Bayesian network (BN) model to estimate health factors for predictive maintenance strategy of large two-stroke marine engines”, *WCCM 2017 - 1st World Congress on Condition Monitoring* , 13-14 June, London, UK.

107. Koh S.S., Zhou B., Yang P. and **Yang Z.** (2017), “Study of group route optimization for IoT enabled urban transportation network”, *IEEE CPSCoM/GreenCoM/iThings/SmartData*, 21-23 June, Exeter, Devon, UK.
108. Al-Yami H., **Yang Z.**, Ramin R., Bonsall S. and Wang J. (2017), “Analytical strategic safety management in container ports”, *4<sup>th</sup> International Conference on Transportation Information and Safety (ICTIS)*, 8-10 August, Alberta, Canada.
109. Alghanmi A., **Yang Z.**, Blanco D.E. (2017), “A fuzzy rule based Bayesian reasoning approach for risk assessment of petroleum transportation systems”, *7<sup>th</sup> IEEE International Conference on Logistics, Informatics and Service Sciences*, July 24 -27, Kyoto, Japan.
110. Yang Z.S., **Yang Z.L.**, Qu Z.H. and Yin J.B. (2017), “Analysis of use of game theory in transportation”, *7<sup>th</sup> IEEE International Conference on Logistics, Informatics and Service Sciences*, July 24 -27, Kyoto, Japan.
111. Yang Z.S., **Yang Z.L.** and Yin J.B. (2017), “Use of Bayesian network to model risk-based port state control inspection”, *International Association of Maritime Economics Conference 2017 (IAME2017)*, June 27-30, 2017, Kyoto, Japan.
112. Zhang R., **Yang Z.**, Luan W. and Jin Z. (2017), “The impact of high-speed rail and low-cost carriers on China’s air market”, *The 17th COTA conference International Conference of Transportation Professionals (CICTP2017)*, July 7-9, 2017, Shanghai, China.
113. Wan C.P., **Yang Z.**, Zhang D, Fan S.Q. and Yan X.P. (2016), “Resilience in transportation systems: A systematic review and future directions”, *International Conference on The Silk Road Economic Belt and the 21st Century Maritime Silk Road for Transportation and Global Supply Chain*, 1-2 December, 2016, Melbourne, Australia.
114. Huang A.Q., Yao L.J., **Yang Z.**, Shi X.L. and Lee T.W. (2016), “Finance, Trade and Infrastructure of OBOR: Current Status, Challenges and Opportunities”, *International Conference on The Silk Road Economic Belt and the 21st Century Maritime Silk Road for Transportation and Global Supply Chain*, 1-2 December, 2016, Melbourne, Australia.
115. Sang K.S., Zhou B., Yang P. and **Yang Z.** (2016), “A survey on urban traffic optimisation for sustainable and resilient transportation network”, *9th International Conference of Development in E-Systems Engineering*, 31<sup>th</sup> August – 2<sup>nd</sup> September, Liverpool and Leeds, UK.
116. Salleh N. H. M., Othman M.R., Riahi R., **Yang Z.** and Wang J. (2016), “Adopting a fuzzy rule-based Bayesian network (FRBBN) for analyzing and predicting a vessel’s arrival punctuality in liner operations”, *International Association of Maritime Economics Conference 2016 (IAME2016)*, August 23-26, Hamburg, Germany.
117. Wang G., Yang Z.S., Zhang D., Huang A. and **Yang Z.** (2016), “Application of Bayesian networks in analysing tanker shipping bankruptcy risks”, *International Association of Maritime Economics Conference 2016 (IAME2016)*, August 23-26, Hamburg, Germany.
118. Ha M. and **Yang Z.** (2016), “A new hybrid decision making framework for prioritising port performance improvement strategies”, *International Association of Maritime Economics Conference 2016 (IAME2016)*, August 23-26, Hamburg, Germany.
119. Lin N., Hjelle H., Cullinane K., Bergqvist R., Eidhammer O., Wang Y.H., Qu Z. and **Yang Z.**, (2016), “Upstream buyer consolidation and downstream short sea shipping in the Asia-Europe sea container supply chain – An explorative study”, *International Association of Maritime Economics Conference 2016 (IAME2016)*, August 23-26, Hamburg, Germany.

120. Li C., Ren J., Wang J. and **Yang Z.** (2016), “Dynamic risk management of chemical supply chains”, *International Association of Maritime Economics Conference 2016 (IAME2016)*, August 23-26, Hamburg, Germany.
121. Lin N., Hjelle H., Cullinane K., Bergqvist R., Eidhammer O., Wang Y.H., **Yang Z.** and Qu Z. (2016), “Potential solutions to upstream buyer consolidation in the China-Europe container trades”, *6<sup>th</sup> IEEE International Conference on Logistics, Informatics and Service Sciences*, July 24 -27, Sydney, Australia.
122. Li C., Ren J., Wang J., Chang D. and **Yang Z.** (2016), “Hazard identification in chemical supply chains: The development of a novel taxonomy”, *6<sup>th</sup> IEEE International Conference on Logistics, Informatics and Service Sciences*, July 24 -27, Sydney, Australia.
123. Huang A.Q., Zhang Z.J., Hua G., Shi X.L. and **Yang Z.**, (2016), “Applying interval knowledge to facilitate the seaport container throughput volume forecasting”, *6<sup>th</sup> IEEE International Conference on Logistics, Informatics and Service Sciences*, July 24 -27, Sydney, Australia.
124. Ventikos N.P., Stavrou D.I. and **Yang Z.** (2016), “Use of fuzzy inference approach to estimate maritime security level”, *3<sup>rd</sup> International Conference on Maritime Technology and Engineering*, July 4 -6, Lisbon, Portugal.
125. Abujaafar K.M., Qu Z., **Yang Z.**, Wang J., Nazir S. and Øvergård K.I. (2016), “Use of evidential reasoning for eliciting Bayesian subjective probabilities in human reliability analysis”, *11th International Conference on System of Systems Engineering (SoSE)*, 12-16 June, Kongsberg, Norway.
126. Wang R., Nguyen T.T., Kavakeb S., **Yang Z.** and Li C. (2016), “Benchmarking dynamic three-dimensional bin packing problems using discrete-event simulation”, *19th European Conference, EvoApplications*, 30 March - 1 April, Porto, Portugal.
127. Pristrom S., **Yang Z.**, Yan X.P. and Wang J. (2015), “A new model for piracy and robbery risk assessment”, *International Forum in Shipping, Ports and Airports (IFSPA2015)*, November 29-December 2, Hong Kong.
128. Abujaafar K., **Yang Z.**, Wang J., Nazir S. and Øvergård K.I. (2015), “Modelling Adequacy of Organisation in Human Reliability Analysis – A Case of Marine Engineering Operations”, *European Safety and Reliability Conference 2015 (ESREL15)*, September 6-10, Zurich, Switzerland.
129. **Yang Z.**, Ng A., Lee P.T.W., Wang T., Rodrigues V.S., Pettit S. and Harris I. (2015), “Modelling risk based cost analysis of port adaptation measures to climate change”, *International Conference on Global Integration of Economies and Connectivity Development, associated with Asian Logistics Round Table conference*, August 31 – September 1, Taipei, Taiwan.
130. Lee P.T.W., Jun C.Y., Lin C.W., Lee K.Y and **Yang Z.** (2015), “Performance Evaluation of Asian Major Cruise Terminals”, *International Conference on Global Integration of Economies and Connectivity Development, associated with Asian Logistics Round Table conference*, August 31 – September 1, Taipei, Taiwan.
131. Muttich M., **Yang Z.**, Lee P.T.W. and Qu Z. (2015), “Modelling Uncertainty in Port Agency Selection of Cruise Lines”, *International Association of Maritime Economics Conference 2015 (IAME2015)*, August 24-26, Kuala Lumpur, Malaysia.
132. Rahmatdin N.M., Noorul, F.S. and **Yang Z.** (2015), “The current development of feeder services in Malaysia due to the opening of the northern sea route (NSR): Route design for Malaysia feeder services”, *International Association of Maritime Economics Conference 2015 (IAME2015)*, August 24-26, Kuala Lumpur, Malaysia.

133. Zhang D., Wan C.P., Yan X.P. and **Yang Z.** (2015), “Quantitative evaluation of green port development – comparative analysis of major ports in China”, *International Association of Maritime Economics Conference 2015 (IAME2015)*, August 24-26, Kuala Lumpur, Malaysia.
134. Ha M., **Yang Z.**, Notteboom T., Ng A., Bonsall S. and An K.M. (2015), “A hybrid approach for modelling interdependencies between port-performance indicators (PPIs)”, *International Association of Maritime Economics Conference 2015 (IAME2015)*, August 24-26, Kuala Lumpur, Malaysia.
135. Ng A., Wang T., **Yang Z.** and Li K. (2015), “A study of Canadian ports in adapting to the risks and uncertainties posed by climate change”, *International Association of Maritime Economics Conference 2015 (IAME2015)*, August 24-26, Kuala Lumpur, Malaysia.
136. Lee P.T.W., Suthiwartnarueput K., Lin C.W., Visamitanan K., **Yang Z.** and Ng A.K.Y. (2015), “Key Success Factors of Waterfront Port Development”, *International Association of Maritime Economics Conference 2015 (IAME2015)*, August 24-26, Kuala Lumpur, Malaysia.
137. Nazir S, Øvergård K.I., **Yang Z.**, and Sorensen L.J. (2015), “Towards effective training for process and maritime industries”, *6th International Conference on Applied Human Factors and Ergonomics (AHFE 2015)*, July 26-30, Las Vegas, USA. Also available on *Procedia Manufacturing*, Vol. 3, pp. 1519 – 1526.
138. Qu Z., Asquco M., Jenkinson I., Wang J. and **Yang Z.** (2015), “Measurement and management of KPIs under uncertainty: A case of shipping management”, *International Conference on Quality, Reliability, Risk, Maintenance, and Safety Engineering (ICOR<sup>2</sup>MSE 2015)*, July 21-24, Beijing, China.
139. Pristrom S., **Yang Z.**, Wang J. (2015), “Major issues associated with maritime security and piracy studies”, *International Conference on Transportation Information and Safety (ICTIS)*, June 28-30, Wuhan, China.
140. Harrison M., **Yang Z.**, Nguyen T. T., Kavakeb S., Wang J. and Bonsall S. (2015), “A TOPSIS method for vehicle route selection in container terminals”, *International Conference on Transportation Information and Safety (ICTIS)*, June 28-30, Wuhan, China.
141. Zhang L., Graham G. and **Yang Z.** (2015), “Public bike-sharing: key issues and challenges in supply chain integration”, *14th International Research Symposium on Service Excellence in Management (QUIS14)*, June 19-21, Shanghai, China.
142. Qu Z., Jenkinson I., Wang J., and **Yang Z.** (2015), “Six sigma in onshore service quality control of shipping operations”, *Global Port Research Alliance Conference on Port and Logistics Connectivity*, May 21-22, Hong Kong.
143. Al-Yami H., **Yang Z.**, Ramin R., Bonsall S. and Wang J. (2015), “Advanced uncertainty modelling for container port risk analysis”, *Global Port Research Alliance Conference on Port and Logistics Connectivity*, May 21-22, Hong Kong.
144. Nguyen T.T., Jenkinson I., and **Yang Z.** (2015), “An experimental study of combining evolutionary algorithms with KD-tree to solving dynamic optimisation problems”, *18th European Conference, EvoApplications*, April 8-10, Copenhagen, Denmark. Also available on *Lecture Notes in Computer Science* (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), Vol. 9028, pp. 857-868.
145. Salleh, N. H. M., Riahi, R., **Yang, Z.**, Wang, J. (2014), “A fuzzy Bayesian belief network approach for assessing the operational reliability of a liner shipping operator”, *Second International Conference on Advances in Economics, Management and Social Study - EMS 2014*, December 20-21, Kuala Lumpur, Malaysia.



146. Kavakeb S., Nguyen T., Benmerikhi M., **Yang Z.** and Jenkinson I.J. (2014), “An improved memetic algorithm to enhance the sustainability and reliability of transport in container terminals”, *Seventh IEEE Symposium on Computational Intelligence for Security and Defense Applications (CISDA)*, 14-17 December, Hanoi, Vietnam.
147. John A., Riahi R., Paraskevadakis D., Bury A., **Yang Z.** and Wang J. (2014), “A new approach for evaluating the disruption risks of a seaport system”, *European Safety and Reliability Conference 2014 (ESREL14)*, September 14-19, Wroclaw, Poland.
148. **Yang Z.** (2014), “Formal security assessment - New approaches to maritime security risk quantification”, *International Association of Maritime Economics Conference 2014 (IAME2014)*, July 15-18, Norfolk, USA.
149. Qu Z., Laidlaw P., Fraser G., Jenkinson I., Wang J., and **Yang Z.** (2014), “Revised FMEA model to facilitate Six Sigma quality control in shipping management”, *International Association of Maritime Economics Conference 2014 (IAME2014)*, July 15-18, Norfolk, USA.
150. Nguyen T., Kavakeb S., **Yang Z.**, Jenkinson I.J. and Wang J., (2014), “Identifying the optimal type and number of transfer vehicles to improve productivity in ports – A simulation approach”, *19<sup>th</sup> Annual Logistics Research Network Conference (LRN)*, 3-5 September, Huddersfield, UK.
151. Salleh, N. H. M., Riahi, R., **Yang, Z.**, Wang, J. (2014), “A proposed fuzzy Bayesian belief network model for evaluating the knowledge management capability of liner shipping operator”, *11<sup>th</sup> International Conference on Enterprise Systems, Accounting and Logistics*, 29 June - 3 July, Crete, Greece.
152. Salleh, N. H. M., Riahi, R., **Yang, Z.**, Wang, J. (2014), “Risk assessment of liner shipping from a business environment perspective”, *2<sup>nd</sup> International Conference on Vulnerability and Risk Analysis and Management and the 6<sup>th</sup> International Symposium on Uncertainty, Modelling, and Analysis*, 13 – 16 July, Liverpool, UK.
153. Kavakeb S., Nguyen T.T., **Yang Z.** and Jenkinson I.J. (2014), “Identifying the robust number of intelligent autonomous vehicles in container terminals”, *16th European Conference on the Applications of Evolutionary and Bio-inspired Computation*, 23-25 April, Granada, Spain. Also available on *Lecture Notes in Computer Science* (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), Vol. 8602, pp. 829-840.
154. Nguyen T.T., Jenkinson I.J., **Yang Z.**, (2013), “Solving dynamic optimisation problems by combining Evolutionary Algorithms with KD-Tree”, *International Conference on Soft Computing and Pattern Recognition*, December 15-18, Hanoi, Vietnam.
155. Qu Z., Jenkinson I., Wang J., Fraser G., and **Yang Z.** (2013), “A new fuzzy TOPSIS method for six sigma project selection: A case analysis in shipping quality control”, *International Association of Maritime Economics Conference 2013 (IAME2013)*, July 2-5, Marseille, France.
156. Ng A., **Yang, Z.**, Cahoon, S., Chen S., Becker M. and Fischer M. (2013), “Analyzing risks posed by climate change on ports: A fuzzy approach”, *International Association of Maritime Economics Conference 2013 (IAME2013)*, July 2-5, Marseille, France.
157. Al Yami H., **Yang Z.**, Ramin R. Bonsall S. and Wang J. (2013), “A new risk analysis approach for container terminal safety evaluation”, *International Conference on Challenges and Responses of Ports in A Globalised Economy*, April 3-5, Bangkok, Thailand.

158. Zhang D., Yan X.P., **Yang Z.** and Wang J. (2013), “Facilitating Fuzzy Rule-Based Evidential Reasoning in the Navigational Risk Assessment of Inland Waterway Transportation System”, 92th Transportation Research Board (TRB) Conference, January 13-17, Washington D.C. USA.
159. Yeo G.T., Ng A., Lee T.W. and **Yang Z.** (2012), “Modelling port choice in an uncertain environment”, International Association of Maritime Economics Conference 2012 (IAME2012), September 6-8, Taipei, Taiwan.
160. **Yang Z.**, Ng A. and Wang J. (2012), “Prioritizing security vulnerabilities in ports”, International Association of Maritime Economics Conference 2012 (IAME2012), September 6-8, Taipei, Taiwan.
161. Rahman N.S.F.A, **Yang Z.**, Bonsall S. and Wang J. (2012), “A decision making technique for selecting shipping business strategies”, International Association of Maritime Economics Conference 2012 (IAME2012), September 6-8, Taipei, Taiwan.
162. Rahman N.S.F.A, **Yang Z.**, Bonsall S. and Wang J. (2012), “A proposed Bayesian network model for analysing the financial performance of containerships under uncertainty”, The 18<sup>th</sup> International Conference on Reliability and Quality in Design, July 26-28, Boston, USA.
163. Pam E.D., Wall A., **Yang Z.** and Wang J. (2012), “Ballast water risk management incorporating fuzzy-infection mode and effect analysis”, European Safety and Reliability Conference 2012 (ESREL12), June 25-29, Helsinki, Finland.
164. Rahman N.S.F.A, **Yang Z.**, Bonsall S. and Wang J. (2012), “A proposed rule-based Bayesian reasoning for analysing super slow steaming on containerships”, The 5<sup>th</sup> International Conference on Maritime Transport, June 27-29, Barcelona, Spain.
165. Abdul Rahman N.S.F., **Yang Z.**, Bonsall S., Wang J. (2012), “Selection of the most efficient steaming speed of containerships using a TOPSIS method”, Proceeding of World Conference on Transport Research Society (WCTRS) – SIG2, May 21-22, Antwerp, Belgium.
166. Abdul Rahman, N.S.F., **Yang, Z.**, Bonsall, S., Wang, J. (2012), “A selection of shipping business strategy for super slow steaming using the decision making technique”. Paper presented at Euro Summer Institute (ESI) on Maritime Logistics, June 13-15, University of Bremen, Bremen, Germany.
167. Nguyen T.T., **Yang Z.**, Wang J., and Bonsall S. (2012), “Dynamic time-linkage problems - the challenges”, International Conference on Computing and Communication Technologies, Ho Chi Minh City, Vietnam, Federacy 27 – March 1, 2012.
168. **Yang Z.** and Wang J. (2011) “Quantitative retrospective analysis of CREAM in maritime operations”, European Safety and Reliability Conference 2011 (ESREL11), September 18-22, Troyes, France.
169. Karahalios H., **Yang Z.** and Wang J. (2011) “A study of the implementation of maritime safety regulations by a ship operator”, European Safety and Reliability Conference 2011 (ESREL11), September 18-22, Troyes, France.
170. **Yang Z.** and Wang J. (2011) “Towards an effective human reliability assessment”, 1<sup>st</sup> International Conference on Transportation Information and Safety, June 30 – July 2, Wuhan, China.
171. **Yang Z.**, Wang J., Merzouki R. and Ouldbouamama B. (2011) “Bayesian Modelling for Human Error Probability Analysis in CREAM”, International Conference on Quality, Reliability, Risk, Maintenance, and Safety Engineering (ICQR<sup>2</sup>MSE 2011), June 17-19, Xi’an, China.
172. Jones B., Jenkinson I., **Yang Z.** and Wang J. (2011) “A subjective approach for eliciting expert judgement on environmental cost estimates in maintenance planning”, 7th IMA International Conference on Modelling in Industrial Maintenance and Reliability, April 18-19, Cambridge, UK.

173. Zhang D., Yan X., **Yang Z.** and Wang J. (2011) "Application of formal safety assessment to navigational risk evaluation of Yangtze river", 30th International Conference on Ocean, Offshore and Arctic Engineering (OMAE 2011), June 19-24, Rotterdam, Netherland.
174. **Yang Z.**, Ng A. and Wang J. (2011) "Incorporating quantitative risk analysis in port facility security assessment", International Association of Maritime Economics Conference 2011 (IAME2011), October 26-28, Santiago, Chile.
175. Li K., Yin J., **Yang Z.** and Wang J. (2010), "The effect of shipowners' effort in vessels accident: A Bayesian network approach", International Forum in Shipping, Ports and Airports (IFSPA2010), October 15-18, Chengdu, China.
176. Dong J., Wang J., Bonsall S., **Yang Z.** and Merzouki R. (2010), "A decision support system for IAV-based container port operations", International Forum in Shipping, Ports and Airports (IFSPA2010), October 15-18, Chengdu, China.
177. **Yang Z.** and Wang J. (2010) "Vulnerability prioritization of container supply chains", International Conference on Korean Port Economics, July 1-3, Incheon, South Korea.
178. Jones B., Jenkinson I.D., **Yang Z.** and Wang J. (2010) "Use of delay time concept, fuzzy set modelling and Bayesian networks for effective maintenance planning", European Safety and Reliability Conference 2010 (ESREL10), September 5-9, Rhodes, Greece.
179. **Yang Z.**, Bonsall S. and Wang J. (2009), "Vulnerability analysis in sea port security management using AHP", 4th International Conference on Quality, Reliability and Infocom Technology (ICORIT), December 18-20, Delhi, India.
180. **Yang Z.**, Bonsall S. and Wang J. (2009), "A fuzzy Bayesian reasoning method to realise interactive failure analysis", 8th International Conference on Reliability, Maintainability and Safety (ICRMS), July 21-25, Chengdu, China.
181. **Yang Z.** and Wang J. (2009), "Quantitative analysis of maritime security assessment in ISPS", European Safety and Reliability Association Conference 2009 (ESRELO9), September 7-10, Prague, Czech Republic.
182. **Yang Z.**, Usman M. and Wang J. (2009), "Use of fuzzy evidential reasoning based CREAM to facilitate the quantification of human failures in maritime operations", 18th Advances in Risk and Reliability Technology Symposium (18th A2RT), April, 21-23, Loughborough, UK.
183. **Yang Z.**, Bonsall S., Jenkinson I.D. and Wang J. (2008), "Risk and security assessment of container supply chains", 9th International Probabilistic Safety Assessment and Management Conference, May 18-23, Hong Kong, China.
184. Celik M., **Yang Z.** and Bonsall S. (2008), "Structuring of performance assessment scheme (PAS) for ERTM training", 16th International Maritime Lecturer Association Conference on Maritime Education and Training, October 14-17, Izmir, Turkey.
185. **Yang Z.**, Bonsall S., Wang J., and Wong S. (2007), "Risk management with multiple uncertain decision making attributes", European Safety and Reliability Association Conference 2007 (ESREL07), June 25-27, Stavanger, Norway.
186. **Yang Z.**, Bonsall S., Wang J. and Phillip, J. (2007), "Fuzzy rule-based Bayesian network approach for failure mode, effects and criticality analysis", 7th International Conference on Reliability, Maintenance and Safety (ICRMS2007), August 22-26, Beijing, China.

187. Hu S.P., Li X.D., Fang Q.G. and **Yang Z.** (2007), “Use of Bayesian method to assess vessel traffic risks at sea”, *1<sup>st</sup> International Conference on Risk Analysis and Crisis Response*, September 25-26, Shanghai, China.
188. **Yang Z.**, Bonsall S., Wang J., and Fang Q.G. (2006), “Maritime security: assessment and management”, *7<sup>th</sup> Annual Conference of International Association of Maritime Universities (IAMU)*, October 16-18, Dalian, China.
189. **Yang Z.**, Bonsall S., Wang J., and Fang Q.G. (2006), “Relative risk assessment using Bayesian networks and evidential reasoning”, *European Safety and Reliability Conference 2006 (ESRELO6)*, September 18-22, Estoril, Portugal.
190. **Yang Z.**, Bonsall S., Wang J., and Fang Q.G., (2005), “Formal safety assessment of container line supply chains”, *European Safety and Reliability Conference 2005 (ESRELO5)*, June 27 – 30, Tri City, Poland.
191. **Yang Z.**, Bonsall S., Wang J., and Fang Q.G. (2005), “Risk assessment of container supply chains using Bayesian networks”, *4<sup>th</sup> International Conference on Quality and Reliability (ICRMS2005)*, August 9-11, Beijing, China.
192. **Yang Z.**, Bonsall S., Wang J., Fang Q.G. and Yang J.B. (2004), “A subjective risk analysis approach for container supply chains”, *10<sup>th</sup> Annual Conference of CACSUK '04*, September 18, Liverpool, UK.

*Non-refereed conference papers*

193. Wang G.W. and **Yang Z.** (2013), “Use of Bayesian networks to analyse the dependency of the factors influencing tanker shipping financial performance and bankruptcy risks”, *Southern Economic Association Conference 2013*, November 23-25, Florida, USA.
194. Ng A. and **Yang Z.** (2012), “Port security regulations and policies in Hong Kong: A risk-based analysis”, *International conference of Association of Transport, Trade and Service Studies (ATTSS)*, June 18-20, Hong Kong, China.
195. Abujaafar K., **Yang Z.**, Bonsall S. and Wang J. (2012), “New fuzzy Bayesian reasoning for maritime human reliability quantification”, *International conference of Association of Transport, Trade and Service Studies (ATTSS)*, June 18-20, Hong Kong, China.
196. Fang Q.G., **Yang Z.**, Wang J. and Hu S.P. (2005), “FSA and its application to the prevention of human error in ship operations using navigation simulators”, *Proceeding of International Workshop on Automation, Computing and Manufacturing '05*, March 29-30, Beijing, China.

*Other publications*

197. Alghanmi A., **Yang Z.**, Riahi R. and Cunningham A. (2016), “Criticality assessment of maritime petroleum transportation network”, *the 9<sup>th</sup> Saudi Student Conference in the UK*, 13-14 February, Birmingham, UK. (Best presentation award).
198. **Yang Z.** (2015), “Challenges in maritime security assessment”, *The Maritime Economist*, Vol. 3, pp. 34-36.
199. Lee, P.T.W. and **Yang Z.** (2015), “History of IAME2012 conference”, *The Maritime Economist*, Vol. 1, pp. 49-50.

*Plenary/keynote addresses and Invited presentations*

200. **Yang Z.** (2017), “Development of risk studies in maritime supply chains –

- Towards resilient and sustainable transport”, *Keynote address in International Conference on Integrated Container Supply Chain*, 4-8 November, Ningbo, China.
201. **Yang Z.** (2016), “Development of maritime security risk analysis techniques”, *The LMS Research Seminar of Hong Kong Polytechnic University*, 28 November, Hong Kong.
  202. **Yang Z.** (2016), “Challenges and opportunities of OBOR - One Belt and One Road”, Opening Keynote Address in *International Conference on The Silk Road Economic Belt and the 21st Century Maritime Silk Road for Transportation and Global Supply Chain*, 1-2 December, 2016, Melbourne, Australia.
  203. **Yang Z.** (2016), “Uncertainty and risks of maritime supply chains”, *Opening Keynote Address in 6<sup>th</sup> IEEE International Conference on Logistics, Informatics and Service Sciences*, July 24 -27, Beijing, China and Sydney, Australia.
  204. **Yang Z.** (2016), “Maritime Safety, Security and Climate Risk Assessment”, *The Lloyd Register Research Seminar jointly with University of Southampton*, 10 November, Southampton, UK.
  205. **Yang Z.** (2016), “Development of risk studies in maritime supply chains”, *The symposium on “Sino-Euro Logistics Network and its Evolution under the Background of Maritime Silk Road*, 21-23 March, Dalian, China.
  206. **Yang Z.** (2016), “Risk analysis in port adaptation to climate change”, *3<sup>rd</sup> EU ENRICH Project Workshop*, 4-6 January, Liverpool, UK.
  207. **Yang Z.** (2015), “Maritime security assessment: theories and applications”, *Maritime Security Conference in Transport Security Expo 2015*, December 2-4, London, UK.
  208. **Yang Z.** (2015), “Quantification of human error probability in maritime operations”, *The International Workshop on Training and Assessment: Advances in Training: Perspectives and Challenges, funded by Norwegian Research Council, at Buskerud Vestfold University College*, 16th September Vestfold, Norway.
  209. **Yang Z.** (2015), “Maritime supply chain resilience and sustainability: Development and challenges”, *Invited speech at Logistics Research Training Workshop funded by China State Administration of Foreign Experts Affairs through Beijing Jiaotong University*, July 21-22, Beijing, China.
  210. **Yang Z.** (2015), “Quantitative maritime security assessment”, *Invited speech at International Conference on Transportation Information and Safety (ICTIS)*, June 28-30, Wuhan, China.
  211. **Yang Z.** (2015), “Maritime safety and security assessment: Development and challenges”, *Invited speech at Dalian Maritime University*, June 8, Dalian, China.
  212. Nguyen T.T., and **Yang Z.** (2014), “Traffic Management and Space Optimisation – Research Contribution to InTraDE Project”, *Invited presentation in the workshop of EU InterReg IVB InTraDE project*, 4-5 December, Lille France.
  213. Kavakeb S., Harrison M., Nguyen T.T., **Yang Z.**, Jenkinson I., Wang J. and Bonsall S. (2014), “Traffic management in container ports: Identifying the Robust Number of IAVs and Selecting the optimal route of IAVs in Container Terminals”, *Invited presentation in the workshop of EU InterReg IVB InTraDE project*, 4-5 December, Lille France.
  214. Nguyen T.T., Kavakeb S., **Yang Z.**, Jenkinson I. and Wang J. (2014), “Identifying the Optimal Type and Number of Transfer Vehicles to Improve Productivity in Ports: Simulation Approach”, *Invited*

*presentation in the workshop of EU InterReg IVB InTraDE project*, 4-5 December, Lille France.

215. Kavakeb S., Nguyen T., **Yang Z.** and McGinlay, K. (2014), “Optimisation and Simulation for Traffic Management in Container Ports”, *Invited presentation in the workshop of EU MC ENRICH project*, 9-10 October, Edinburgh, UK.
216. **Yang Z.** and Ng A.K.Y. (2014), “Port adaptation to climate change : A risk analysis approach”, *Invited speech in the Environmental and Sustainability Forum & Port and Maritime Forum by the Chartered Institute of Logistics and Transport*, 2<sup>nd</sup> July, Liverpool, UK.
217. **Yang Z.** (2013), “Port safety and security - prioritising the security risks and threats in ports”, *Maritime Security Conference in Transport Security Expo 2013*, November 13-14, London, UK.
218. **Yang Z.** (2013), “Advanced research into freight, logistics, and maritime transport: implications for policy”, *Invited speech in the Liverpool Chamber of Commerce*, April 24, Liverpool, UK.
219. **Yang Z.** (2012), “Maritime human reliability quantification”, *Invited speech in INFORMS International*, June 24-27, Beijing, China.
220. **Yang Z.**, Nguyen T. and Wang J. (2012), “Strengthening maritime anti-piracy measures”, *Invited Speech in workshop of Office of Naval Research Global (ONRG)*, April 02, London, UK.
221. **Yang Z.**, (2011), “Maritime human reliability analysis”, *Invited Presentation in Research Seminar of Hong Kong Polytechnic University*, December 5, Hong Kong, China.
222. **Yang Z.**, (2011), “Research methods on maritime risk assessment and safety management”, *Invited Presentation in Research Seminar of Incheon University*, June 10-11, Incheon, South Korea.
223. **Yang Z.**, (2010), “Maritime security management”, *Invited Presentation in Maritime Logistics Symposium in Shanghai World Expo*, August 18-19, Shanghai, China.
224. **Yang Z.**, (2010), “Research contribution of the LOOM to InTraDE”, *Invited Talk to be Presented in the Formal Launching Meeting of the EU funded InTraDE Project*, February 19, Dover, UK.
225. **Yang Z.**, (2008), “Risk assessment and decision making in container supply chains”, *Invited Presentation in the 3<sup>rd</sup> Maritime Economic and Logistics PhD Competition*, November 25, Rotterdam, Netherland.
226. **Yang Z.**, (2008), “Use of advanced technology in maritime security”, *Invited Talk to be Presented in IMarEST South East England Branch Meeting*, February 19, Dover, UK.
227. **Yang Z.**, (2005), “Use of Bayesian networks in the prediction of navigation collision risks”, *Invited talk given to the Navigation Simulator Research Group*, Shanghai Maritime University, August 12, Shanghai, China.
228. **Yang Z.**, (2005), “Risk assessment of container supply chains using methods of uncertainty treatment”, *Presented in the Research Seminar of School of Engineering, LJMU*, December 13, Liverpool, UK.

*Selected SCI/SSCI journal papers (submitted including the ones accepted subject to revisions)*

229. **Yang Z.\*** and Wang J. “A real-time security assessment technique for facilitating the quantitative development of the international shipboard and port facility security code”, submitted to *Maritime Policy and Management*.

There are 25 SCI cited journal papers under review (incl. accepted subject to minor revision) and over 20 journal manuscripts in pipeline.