Panagiotis Angeloudis PHD, DIC, ACGI, MCILT

Senior Lecturer in Transport Systems & Logistics

CONTACT INFORMATION	Room 337, Skempton Building	phone:	+44 207 594 5986
	Department of Civil & Environmental Engineering	skype:	panagiotis.angeloudis
	Imperial College London	email:	p.angeloudis@imperial.ac.uk
	London, SW7 2BU, United Kingdom	web:	imperial.ac.uk/people/p.angeloudis

RESEARCH INTERESTS	Fleet Operations, Logistics, Shipping Markets, Network Resilience, Trajectory Optimisation, Algorithmic Game Theory, Metaheuristics, Agent-Based Simulation

ACADEMIC POSITIONS	**Imperial College London**, United Kingdom	
	Senior Lecturer in Transport Systems and Logistics	**Aug 2016 - present**
	Lecturer in Urban Engineering Systems	**Jun 2012 - Jul 2016**
	Director, Port Operations Research and Technology Centre (PORTeC)	
	Director, Intelligent Infrastructure & Transport Systems Laboratory (IITS)	
	Deputy Teaching Director, MSc in Transport	
	Member, Centre for Systems Engineering and Innovations	
	Member, Institute for Security Science and Technology	
	Member, Imperial Robotics Forum	
	Research Associate	**Nov 2009 - May 2012**
	Research Assistant	**Nov 2008 - May 2009**
	Visiting Lecturer, Imperial College Business School	
	Graduate Teaching Assistant, Dept. of Civil & Environmental Engineering	
	Kyoto University, Japan	
	JSPS Research Fellow	**Mar - Jun 2013**

PROFESSIONAL POSITIONS	**Imperial College Consultants Ltd**, London, United Kingdom	
	Research Consultant	**Sep 2006 - present**
	United Nations, Geneva, Switzerland	
	Graduate Intern	**May - Aug 2006**
	P&O Ports, Southampton, United Kindom	
	Analyst	**Jul - Sep 2005**

PROFFESIONAL AFFILIATIONS	**Chartered Member** Chartered Institute of Logistics and Transport
	Chartered Civil Engineer Technical Chamber of Greece
	Member Operational Research Society

EDUCATION	**Imperial College London**, United Kingdom	
	PhD in Transport Engineering	**Oct 2005 - Nov 2009**
	MEng in Civil & Enviornmnetal Engineering (First Class Honours)	**Oct 2001 - Jun 2005**

RESEARCH GRANTS	**A radical mode SHIFT enabled by autonomous pods**	**2018**
	£ 299,800 InnovateUK	
	Sustainable demand responsive transit schemes for developing countries	**2017**
	£ 7,500 EPSRC	

NOx emissions estimation in real time   **2017**
£ 301,200   InnovateUK *(Grant code: 103304)*

Optimisation of prefabricated construction (CASE)   **2017**
£ 98,000   EPSRC, Rolls-Royce *(Grant code: 17000031)*

Kinetic energy recovery for urban logistics applications (KERS-URBAN)   **2016**
£ 425,000   InnovateUK *(Grant code: 103253)*

Incident detection in shipping markets   **2016**
£ 18,000   HEFCE

OVARE - Optimised Vehicle Autonomy for Ride and Emissions   **2015**
£ 160,000   InnovateUK *(Grant code: 132275)*

Strategic Network - Cities as Complex Adaptive Systems   **2015**
£ 10,160   ESRC *(Grant code: ES/N009436/1)*

Pathways to Impact Shipbroking Optimization Platforms   **2015**
£ 74,888   EPSRC *(Grant code: EP/K503733/1)*

Digitally Enabling Electrification   **2013**
£ 190,000   InnovateUK *(Grant code: 32016-235149)*

Postdoctoral Research Fellowship on Infrastructure Resilience   **2013**
£ 10,000   JSPS

Optimisation of DfMA structures   **2013**
£ 266,000   EPSRC *(Grant code: EP/L504683)*

Clean Last mile transport and logistics management   **2011**
£ 107,957   European Commission *(Grant code: IEE10154)*

Robust and Stochastic Optimisation Methods for AGVs   **2008**
£ 538,302   EPSRC *(Grant code: EP/F044895)*

Total research grants: £ 2,506,807

RESEARCH CONTRACTS		

Optimisation of Prefabrication Strategies for Nuclear Construction   **2017**
£ 68,000   *Bouygues Construction, France*

Understanding the passenger road network through data   **2017**
£ 10,000   *Government Office of Science, United Kingdom*

Development of the Colombian National Logistics Masterplan   **2016**
£ 15,000   *Ivarsson & Asociados, Colombia*

Wuhan Yangtze River Maritime Cluster Masterplan   **2016**
£ 44,000   *National Development and Reform Commission, China*

Optimisation of construction logistics operations   **2013**
£ 36,000   *Laing O' Rourke, United Kingdom*

A universal infrastructure resilience assessment framework   **2012**
£ 25,000   *ARUP, United Kingdom*

Global container shipping network modelling   **2011**
£ 15,000   *SITI Institute, Italy*

Design and Detailed Simulation Analysis of automated check-in   **2006**
£ 15,000   *Department for Transport, United Kingdom*

Scoping study for the improved FORGE model   **2006**
£ 2,000   *P&O Ferries, United Kingdom*

Throughput bottleneck analysis in container terminals   **2005**
£ 2,800   *P&O Ports, United Kingdom*

Total research contracts: £ 232,800

PHD STUDENT SUPERVISION		

Haughton, Tim   **2017 - Present**
Optimisation of prefabricated construction

Jayum, Kimberly   **2016 - Present**
Risk of Autonomous Vehicle Operations

Hsu, Leo   **2015 - Present**
Flexible design of supply chains in the construction industry

Escribano, Jose   **2015 - Present**
Strategic planning of post-disaster infrastructure repairs

Karamanis, Renos		**2015 - Present**
Infrastructure Resilience Modelling		
Goldbeck, Nils		**2014 - Present**
Development of Urban Infrastructure resilience models		
Seo, Jung-Yong		**2014 - Present**
Integrated routing and scheduling of free-ranging Automated Guided Vehicles		
Achurra, Pablo		**2013 - 2017**
Resilience of the global liner shipping network.		
Sang, Wenlong		**2012 - 2016**
Reliability of highway network architectures		
Thalis Zis		**2012 - 2015**
Environmental impact of port operations		
Noye, Sarah		**2011 - 2016**
Improved building services commissioning using wireless sensor networks		
Rochau, Normen		**2009 - 2013**
Capacity constraints in public transportation		
Nikhalat, Hamed		**2008 - 2012**
An operational model for LNG spot and arbitrage sales		
Liu, Xin		**2008 - 2012**
Port choice, a frequency-based container assignment model		

Postoctoral
Researchers

Dr Mino Woo		**2017 - present**
Emissions-based vehicle pricing models		
Dr Pablo Achurra-Gonzalez		**2017 - present**
Kinetic Energy Recovery Systems for Freight Vehicles		
Dr Juan Marcos Garcia de la Cruz Lopez		**2016 - 2017**
Kinetic Energy Recovery Systems for Freight Vehicles		
Niknejad, Ali		**2015 - 2016**
Maritime Shipbroking Platforms		
Hu, Simon		**2015 - 2017**
Vehicle Emissions Monitoring and Simulation		
Anvari, Bani		**2013 - 2016**
DfMA for Nuclear Construction		
Ye, Hao		**2013 - 2014**
Spatial Models for Urban Resilience		

Research
Contributions

Grant Proposal Reviews
  Royal Society (United Kingdom), Japanese Society for the Promotion of Science (Japan), Archimedes & Thales Funding Programmes (Greece), Research Financing Directorate (Romania)

Journal Manuscripts Reviews
  Accident Analysis and Prevention, Advanced Engineering Informatics, Advanced Transportation, Computers & Operations Research, Engineering Applications of Artificial Intelligence, Flexible Services and Manufacturing, IEEE Transactions on Automation Science and Engineering, Industrial Engineering, Theory, Applications & Practice, Maritime Policy and Management, Operations Research, Physica A, Science of the Total Environment, Transportation, Transportation Planning and Technology, Transportation Research Part A, Transportation Research Part B, Transportation Research Part C, Transportation Research Part D, Transportation Research Part E, Transportmetrica A

Conference Manuscript Reviews
  International Network Operations Conference, Transport Research Board Annual Meeting, International IEEE Annual Conference on Intelligent Transportation Systems, Logistics and Maritime Systems

PHD CANDIDATE	**Dr Sophie Damy** *(Imperial College London)*	**2017**
EXAMINATIONS	**Dr Mirreile El Hajj** *(Imperial College London)*	**2017**
	Dr Rui Sha *(University College London)*	**2017**
	Dr Kuang-Chang Pien *(Imperial College London)*	**2015**
	Dr Enrique Martin Alcade *(Universitat Politechnica de Catalonia)*	**2014**

TEACHING	**MSc in Transport**,*Deputy Teaching Director*	**2013-present**
CONTRIBUTIONS	**CI370 Transport Systems**,*Module Coordinator*	**2012-present**
	CI423 Operations Research,*Contributor*	**2012-present**
	T24 Ports and Maritime Transport,*Module Coordinator*	**2012-present**
	T20 Freight Transport,*Module Coordinator*	**2012-2017**
	Advanced Programming for Finance,*Module Coordinator*	**2009-2012**

STUDENT
SUPERVISION

2018 MEng: Kisaanth Jeyarayan, Ioannis Tsipouras

2017 MSc: Mario Abou Farhat, Simone Charles Severin, Adrien Callet, Dimitrios Demeroukas, Ponn Chalermwongsawej, Guanjin Chen MEng: Naveeth Basheer, Tim Haughton, Khaled Abdulhamid, Anna Feledi UROP: Nisansa Igalawithana

2016 MSc: Qiyu Sun, Carlos Estaban Piola Ruiz, Andreas Kaloterakis, Ivo Keranov, Linda Ivarsson, Wang Yue MEng: Ali Reza Baygi, Mohamed Gaafar, Kishan Patel, Giannis Slimpi UROP: Anna Feledi

2015 MSc: Konstantinos Simotas MEng: Nicholas Wong, Javier Mnroig Vives, Jose Escribano, Jae Yung, Alexandros Abadjis UROP: Muhamad Haji Kasri

2014 MSc: Cecilia Thordadottir, Matteo Novatti, Andrew Elwood, Gift Arnongant, Apostolos Ziakopoulos, Suqi Shi MEng: Elena Ochoa Garcia, Tamara Brooks

2013 MSc: Shuxuan Gong

2012 MSc: Ioanna Karelia MEng: Bernadette Lee

2011 MSc: Dimitris Papadopoulos, Qinq Zhao

2010 MEng: Paul Corry

2009 MSc: Tzu-Yau Chuang, Zhiting Tao MEng: James Pocknell

2008 MSc: Melina Zarouka MEng: Richard Stagg

2007 MEng: Tarun Rao, Indragura Win

2006 UROP: Simon Fayer

PUBLICATIONS

[1] Nikhalat-Jahromi H, Angeloudis P, Bell MGH, and Cochrane RA. "Global LNG trade: A comprehensive up to date analysis oa". *Maritime Economics and Logistics* 19.1 (2017). ISSN: 1479294X. DOI: 10.1057/mel.2015.26.

[2] Shang W, Han K, Ochieng WY, and Angeloudis P. "Agent-based day-to-day traffic network model with information percolation". *Transportmetrica A: Transport Science* 13.1 (2017). DOI: 10.1080/23249935.2016.1209254.

[3] Anvari B, Bell MGH, Angeloudis P, and Ochieng WY. "Calibration and validation of a shared space model: Case Study". *Transportation Research Record* 2588 (2016). DOI: 10.3141/2588-05.

[4] Anvari B, Angeloudis P, and Ochieng WY. "A multi-objective GA-based optimisation for holistic Manufacturing, transportation and Assembly of precast construction". *Automation in Construction* 71.Part 2 (2016). DOI: 10.1016/j.autcon.2016.08.007.

[5] Nikhalat-Jahromi H qnd Bell MGH, Fontes DBMM, Cochrane RA, and Angeloudis P. "Spot sale of uncommitted LNG from Middle East: Japan or the UK?" *Energy Policy* 96 (2016). DOI: 10.1016/j.enpol.2016.06.027.

[6] Briskorn D and Angeloudis P. "Scheduling co-operating stacking cranes with predetermined container sequences". *Discrete Applied Mathematics* 201 (2016). DOI: 10.1016/j.dam.2015.07.042.

[7] Angeloudis P, Greco L, and Bell MGH. "Strategic maritime container service design in oligopolistic markets". *Transportation Research Part B: Methodological* 90 (2016). DOI: 10.1016/j.trb.2016.04.010.

[8]   Zis T, Angeloudis P, Bell MGH, and Psaraftis HN. "Payback period for emissions abatement alternatives: Role of regulation and fuel prices". *Transportation Research Record* 2549 (2016). DOI: 10.3141/2549-05.

[9]   Achurra-Gonzalez PE, Novati M, Foulser-Piggott R, Graham DJ, Bowman G, Bell MGH, and Angeloudis P. "Modelling the impact of liner shipping network perturbations on container cargo routing: Southeast Asia to Europe application". *Accident Analysis and Prevention* (2015). DOI: 10.1016/j.aap.2016.04.030.

[10] Zis T, North R, Angeloudis P, Ochieng WY, and Bell MGH. "Environmental Balance of Shipping Emissions Reduction Strategies". *Transportation Research Record: Journal of the Transportation Research Board* 2479 (2015), pp. 25–33. DOI: 10.3141/2479-04.

[11] Bell MGH Angeloudis P Hu J. "A strategic repositioning algorithm for bicycle-sharing schemes". *Transportmetrica A: Transport Science* 10.8 (2014). ISSN: 23249943. DOI: 10.1080/23249935.2014.884184.

[12] Zis T, North RJ, Angeloudis P, Ochieng WY, and Bell MGH. "Environmental balance of shipping emissions reduction strategies". 2479 (2014). DOI: 10.3141/2479-04.

[13] Zis T, North RJ, Angeloudis P, Ochieng WY, and Bell MGH. "Evaluation of cold ironing and speed reduction policies to reduce ship emissions near and at ports". *Maritime Economics and Logistics* 16.4 (2014). DOI: 10.1057/mel.2014.6.

[14] Bell MGH, Liu X, Rioult J, and Angeloudis P. "A cost-based maritime container assignment model". *Transportation Research Part B: Methodological* 58.8 (2013), pp. 58–70. DOI: 10.1016/j.trb.2013.09.006.

[15] Bell GH, Liu X, Angeloudis P, Fonzone A, and Haji Hosseinloo S. "A frequency-based maritime container assignment model". *Transportation Research Part B: Methodological* 45.8 (2011), pp. 1152 –1161. DOI: 10.1016/j.trb.2011.04.002.

[16] Angeloudis P and Bell MGH. "A review of container terminal simulation models". *Maritime Policy and Management* 38.5 (2011), pp. 523–540. DOI: 10.1080/03088839.2011.597448.

[17] Angeloudis P and Bell MGH. "An uncertainty-aware AGV assignment algorithm for automated container terminals". *Transportation Research Part E: Logistics and Transportation Review* 46.3 (2010). DOI: 10.1016/j.tre.2009.09.001.

[18] Angeloudis P and Fisk D. "Large subway systems as complex networks". *Physica A: Statistical Mechanics and its Applications* 367 (2006), pp. 553–558. DOI: 10.1016/j.physa.2005.11.007.

BOOK CHAPTERS

[1]   Goldbeck N, Angeloudis P, and Ochieng WY. *A dynamic network flow model for interdependent infrastructure and supply chain networks with uncertain asset operability.* Vol. 10572 LNCS. 2017. DOI: 10.1007/978-3-319-68496-3_34.

[2]   Goldbeck N, Angeloudis P, and Ochieng WY. *Building Sustainable and Resilient Infrastructure to Support Future Cities.* Routledge, 2017.

[3]   Hsu PY, Aurisicchio M, and Angeloudis P. *Establishing outsourcing and supply chain plans for prefabricated construction projects under uncertain productivity.* Vol. 10572 LNCS. 2017. DOI: 10.1007/978-3-319-68496-3_35.

[4]   Zis T, Angeloudis P, and Bell MGH. *Economic and environmental trade-offs in water transportation.* 2015. ISBN: 9783319171814. DOI: 10.1007/978-3-319-17181-4_10.

[5]   Angeloudis P, Bichou K, and Bell MGH. *Security and reliability of the liner container-shipping network: Analysis of robustness using a complex network framework.* 2013. DOI: 10.4324/9781315850504.

[6]   Kanturska U and Angeloudis P. *Introduction to network theory and game theory as frameworks for the analysis of critical infrastructure.* Sector Publications. Institution of Engineering and Technology, 2013, pp. 22–28. DOI: 10.1049/PERIRR3E_ch3.

CONFERENCES

[1]   Escribano J, Angeloudis P and Ochieng W. "Rapid Urban Evacuation acrross Constrained Transport Networks". *TRB* (2017), Washington, United States

[2]   Angeloudis P, Hu S. "Intermodal container transport vulnerability". *LOGMS* (2017), Bergen, Norway

[3]   Goldbeck N, Ochieng W and Angeloudis P. "Joint Vulnerability Analysis of Urban Rail Transit and Utility Networks". *TRB* (2016), Washington, United States

[4] Anvari B, Ochieng W, Bell MGH and Angeloudis P. "Calibration and Validation of a Shared Space Model, A Case Study". *TRB* (2016), Washington, United States

[5] Achurra-Gonzales P and Angeloudis P. "A quantitative framework for the assessment of network vulnerability in liner shipping networks". *TRB* (2016), Washington, United States

[6] Zavitsas K, Hu S and Angeloudis P. "Assessing Autonomous Vehicles Impact On Urban Traffic Emissions and Intersection Performance". *TRB* (2016), Washington, United States

[7] Angeloudis P. "Resilience of Liner Shipping Networks". *GPRA* (2016), Hamburg, Germany

[8] Zis T, Angeloudis P and Bell MGH. "The environmental balance of vessel emission strategies". *TRB* (2016), Washington, United States

[9] Niknejad A, Angeloudis A, Achurra-Gonzalez P and Tsigkakos V. "The environmental balance of vessel emission strategies". *UK Research Software Engineering Conference* (2016), Manchester, United Kingdom

[10] Goldbeck N and Angeloudis P. "Analysing the resilience of metro systems under consideration of interdependencies". *WCTR* (2016), Shanghai, China

[11] Angeloudis P. "Urban resilience modelling using network flows". *TRB* (2015), Washington, United States

[12] Angeloudis P, Greco L and Bell MGH. "Strategic Maritime Container Transport Design in Oligopolistic Markets". *ISTTT21* (2015), Kobe, Japan

[13] Zis T, North R, Angeloudis P, Ochieng WYO, Bell MGH. "The environmental balance of vessel emission strategies". *TRB* (2015), Washington, United States

[14] Achurra-Gonzales P and Angeloudis P. "Regional conflicts and impact of liner shipping". *GPRA* (2015), PolyU, Hong Kong

[15] Pachakis D and Angeloudis P. "Equipment Sizing using Petri Nets". *GPRA* (2015), PolyU, Hong Kong

[16] Novati M, Achurra-Gonzalez P and Angeloudis P. "Modelling the effects of port disruptions". *TRB* (2015), Washington, United States

[17] Goldbeck N, Ochieng W and Angeloudis P. "Analysis of cascading failures across interdependent dynamic networks". *EURO* (2015), Glasgow, United Kingdom

[18] Anvari B, Angeloudis P and Ochieng WYO. "Long-range Collision Avoidance for Shared Space Simulation based on Social Forces". *PED* (2014), Delft, Netherlands

[19] Anvari B, Angeloudis P and Ochieng WY. "Analysis of Prefabricated Urban Housing Constructions on Freight Transport Systems". *INFORMS* (2014), San Diego, United States

[20] Zis T, North R, Angeloudis P, Ochieng WYO and MGH Bell. "The effects of speed reduction policies near ports". *TRB* (2014), Washington, United States

[21] Karamanis R, Angeloudis P and Stettler M. "A Fleet Size Algorithm for Autonomous Vehicle Fleets". *TRB* (2017), Washington, United States

[22] Angeloudis P and Greco L. "Strategic network design in an oligopolistic market for maritime container transport". *EURO* (2013), Rome, Italy

[23] Zis T, North R, Angeloudis P and Bell MGH. "A systematic evaluation of alternative options for the reduction of vessel emissions in ports". *TRB* (2013), Washington, United States

[24] Angeloudis P, Jun H and Bell MGH. "A strategic repositioning algorithm for bicycle-sharing schemes". *TRB* (2012), Washington, United States

[25] Bell MGH and Angeloudis P. "Repositioning algorithms for the global containership assignment network". *IFORS* (2011), Melbourne, Australia

[26] Angeloudis P and Bell MGH. "A frequency-based maritime container assignment model for global liner services". *TRB* (2011), Washington, United States

[27] Klerides E and Angeloudis P. "Stochastic and deterministic assignment under uncertainty for automated container terminals". *IFORS* (2011), Melbourne, Australia

[28] Angeloudis P and Bell MGH. "Simulation and optimisation for the next generation of automated container terminals". *FACT* (2011), London, United Kingdom

[29] Angeloudis P and Bell MGH. "Repositioning algorithms for bike sharing schemes". *UTSG* (2011), Milton Keynes, United Kingdom

[30] Angeloudis P and Bell MGH. "A frequency-based maritime container assignment model for global liner services". *TRB* (2011), Washington, United States

[31] Bell MGH and Angeloudis P. "Future for the Automation of Container Terminals". *LOGMS* (2010), Busan, South Korea

[32] Angeloudis P, Bell MGH, Klerides E and Hadjiconstantinou E. "Stack Operation Uncertainty in Automated Container Terminals - Effects, Challenges and Control Techniques". *IAME* (2010), Lisbon, Portugal

[33] Klerides E, Hadjiconstantinou E, Angeloudis P and Bell MGH. "Modelling and solution approaches to the multi-load AGV dispatching problem in seaport container Terminals". *IAME* (2010), Lisbon, Portugal

[34] Angeloudis P and Bell MGH. "A fresh look at container terminal simulation and its application in academic research". *IAME* (2009), Copenhagen, Denmark

[35] Bell MGH and Angeloudis P. "The Future of Automation". *5th PorTech Conference* (2009), Shanghai, China

[36] Angeloudis P and Bell MGH. "Assignment of Multi-load AGVs under Uncertainty". *INFORMS* (2009), San Diego, United States

[37] Angeloudis P and Bell MGH. "Uncertainty in container terminal operations". *IFORS* (2008), Johannesburg, South Africa

[38] Ahuja S, Angeloudis P and Bell MGH. "Simulation and Evaluation of Intelligent Check in Facilities for Ferry Port Terminals". *European Transport Conference* (2007), Leiden, Netherlands

[39] Angeloudis P and Bell MGH. "Optimisation Techniques to Automated Container Terminals, Application of Robust Optimisation". *UTSG* (2007), Harrogate', United Kingdom

[40] Angeloudis P and Bell MGH. "Implementation of an Automated Guided Vehicle dispatching and scheduling framework using robust optimisation". *INFORMS* (2007), Seattle, United States

[41] Angeloudis P, Bichou K, Bell MGH and Fisk D. "Security and Reliability of the Liner Container-Shipping Network". *IAME* (2006), Melbourne, Australia

INVITED TALKS

[1] Jacobs (2017).*"Autonomous Vehicles and Connected Transport Technologies"* London, United Kingdom

[2] Department for Transport (2017).*"Impact of World Events to Maritime Transport"* London, United Kingdom

[3] Future Cities Catapult (2017).*"Innovation in Urban Infrastructure and Operations"* London, United Kingdom

[4] Tongji University (2017).*"Ridesharing System Design"* Shanghai, China

[5] National Development and Reform Commission (2017).*"Network Analysis of the Wuhan Logistics Cluster"* Beijing, China

[6] National Development and Reform Commission (2017).*"Freight Network Modelling for the Colombia National Logistics Masterplan"* Bogota, Colombia

[7] CNRS (2016).*"Maritime Networks Flows and Games"* Paris, France

[8] University of Sydney (2016).*"Flow assignment for empty and full containers"* Sydney, Australia

[9] University of Manchester (2016).*"Transport & Urban Complexity"* Manchester, United Kingdom

[10] Department for Transport (2016).*"Port Resilience and Shipping Network Models"* London, United Kingdom

[11] Dean's Forum (2015).*"Resilience modelling using network flows"* University of Tokyo, Japan

[12] ARUP (2014).*"Network Modelling for Urban Infrastructure"* London, United Kingdom

[13] PD Ports (2014).*"Port Operations Modelling"* Middlesbrough, United Kingdom

[14] Laing O' Rourke (2014).*"Dynamic Supply Chain Network Design"* London, United Kingdom

[15] Kyoto University (2013).*"Resilience of Metro Networks"* Kyoto, Japan

[16] Tokyo Institute of Technology (2013).*"A strategic redistribution algorithm for bicycle sharing schemes"* Tokyo, Japan

[17] Tohoku University (2013).*"Strategic Infrastructure Resilience Modelling"* Sendai, Japan

[18] MINES ParisTech (2013).*"Transport Infrastructure and Climate Change"* Paris, France

[19] Dean's Forum (2012).*"Resilience of Urban Infrastructure"* University of Tokyo, Japan

[20] EC eFreight Consortium (2010).*"Container Terminal Optimization and Simulation"* Athens, Greece

[21] Lloyd's Maritime Academy (2008).*"State of Container Terminal Automation"* London, United Kingdom