Panagiotis Angeloudis PHD, DIC, ACGI, MCILT

Senior Lecturer in Transport Systems & Logistics

Contact Information

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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**

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**

Proffesional Affiliations

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

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)*
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: £ 2,408,807

Research Contracts

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

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

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

Wuhan Yangtze River Maritime Cluster Masterplan **2016**
£ 44,000 *China Dev.&Ref. Commission*

Optimisation of construction logistics operations **2013**
£ 36,000 *Laing ORourke*

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

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

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

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

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

Total research contracts: £ 232,800

PhD Student Supervision

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

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

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 - Present**
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**
Use of wireless sensor networks in building energy and comfort monitoring

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

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

Teaching Contributions

MSc in Transport,*Deputy Teaching Director*	**2013-present**
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**

Publications

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.

Conference Proceedings