

Curriculum Vitae



Associate Professor Ma Nang Laik

Associate Professor, Business Programme
School of Business

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Education Qualifications

2004 - 2008	Ph.D. in Operations Research, Imperial College London, UK Dissertation: Optimal planning of container terminal operations
1999 - 2000	M.Sc. in High Performance Computing, Singapore MIT Alliance, National University of Singapore, Singapore
1994 - 1999	B.Sc. in Mathematics, National University of Singapore, Singapore

Academic and Professional Experience

Jul 2015 - Present	Senior Lecturer, School of Business, Singapore University of Social Sciences
Jan 2012 - Jun 2015	Director of Master of IT in Business (Analytics), School of Information Systems, Singapore Management University
Apr 2008 - Jul 2015	Assistant Professor (Practice), School of Information Systems, Singapore Management University
Jun 2003 - Jun 2004	Research Fellow, Industrial and System Engineering School, National University of Singapore, Singapore
Jul 2000 - May 2003	Senior System Analyst, Container Terminal System Department, PSA Pte Ltd, Singapore
Jul 1999 - Jun 2001	System Analyst, IT Department, DBS Bank, Singapore

Consultancy and Executive Experience

- Changi-Airport Group (2013 - Present): Academic Consultant for projects related to resource allocation, demand forecasting, process improvements, and efficient terminal operations.
- National Kidney Foundation (2016 - 2017): Academic Advisor for projects related to data analytics, and business process improvement.

- Northport Malaysia (2013): Executive Advisor in a program related to big data analytics and applications in the port

Research Interests

- Application of operations research in logistics and supply chain
- Application of simulation in business
- Development of complex decision support system
- Demand forecasting for airlines
- Continual business process improvement
- Large-sale optimisation
- Business analytics in healthcare sector
- Resource allocation and optimisation in business

Selected Publications

Journal Articles (Refereed)

- Jonathan Leong YH, **Ma Nang Laik**. (2019). Using Experiential Learning Theory to Improve Teaching and Learning in Higher Education. *European Journal of Social Science Education and Research*, 6(1), 123-132.
- **Ma Nang Laik**, Tan Kar Way. (2019). Reducing carbon emission through container shipment consolidation and optimisation. *Journal of Traffic and Transportation Engineering*, 7, 111-121.
- **Nang Laik Ma**, Sen Prabir. (2017). Faculty Assignment and Timetabling using Optimisation. *International journal of Computer Science and Information Security*, 15(12), 29-35.
- Devasahay SR, Karpagam S & **Ma Nang Laik**. (2017). Predicting Appointment Misses in Hospitals using Data Analytics. *mHealth*, 3(12).
- Koh Lian Chee, **Ma Nang Laik** & Zack Wang Zheng. (2016). Data Analytics at Alexandra Health System: A New Journey in the Healthcare Industry. Winner of EFMD case competition award in the Leadership category.
- Murphy Choy, MLF Cheong, **Ma Nang Laik**, KP Shung. (2012). US presidential election 2012 prediction using census corrected twitter model. arXiv:1211.0938
- Murphy Choy, MLF Cheong, **Ma Nang Laik**, KP Shung. (2011). A sentiment analysis of Singapore Presidential Election 2011 using Twitter data with census correction. arXiv:1108.5520
- Leong Thin Yin, **Ma Nang Laik**. (2011). Case Article - Inkjet Printer Pricing. *INFORMS Transactions on Education*, 11(3), 136-137.
- Murphy Choy, **Ma Nang Laik** (2011). A Markov Chain Approach to Determine the Optimal Performance Period and Bad Definition for Credit Score Card. *Research Journal of Social Science & Management*, 1(6), 227-234.
- Eleni Hadjiconstantinou, **Ma Nang Laik**. (2009). Evaluating Straddle Carrier Deployment Policies: a Simulation Study for the Piraeus Container terminal. *Maritime Policy & Management*, 36(4), 353-366.

- **Ma Nang Laik**, Eleni Hadjiconstantinou. (2008). Container Assignment and Yard Crane Deployment in a Container Terminal: A Case Study. *Maritime Economics & Logistics*, 10, 90-107.
- **Ma Nang Laik**, Eleni Hadjiconstantinou. (2008). Evaluation of Operational Plans in Container Terminal Yards using Discrete-Event Simulation. *OR Insight*, 21(4), 10-18.

Conference Papers (Refereed)

- **Ma Nang Laik**, Murphy Choy. (2019). Improving customers' flows through data analytics, In: F. Wotawa et al. (Eds.) *Advances in Artificial Intelligence: From Theory to Practice*. IEA/AIE, Lecture Notes in Computer Science, LNAI 11606, (279-286), 2019, Graz - Austria.
- Murphy Choy, **Ma Nang Laik**. (2019). State of Model Risk: A Comprehensive Review of Model Validation and Model Risk Management Approaches in the Age of Machine Learning, AI and Deep Learning, Paper presented at Industrial Engineering and Operations Management, IEOM 2019, Bangkok.
- **Ma Nang Laik**, Murphy Choy. (2019). Resource Planning at the Airport. In: Arai K., Kapoor S., Bhatia R. (eds) *Intelligent Computing*. SAI 2018. *Advances in Intelligent Systems and Computing*, 858, (836-846). Springer, Cham
- Prabir Sen, **Ma Nang Laik**. (2019). Statistical Learning of Lattice Option Pricing and Trader's Behavior using Ising Spin Model for Asymmetric Information Transitions. In: Arai K., Kapoor S., Bhatia R. (eds) *Intelligent Computing*. SAI 2018. *Advances in Intelligent Systems and Computing*, 857, (1-17). Springer, Cham
- Murphy Choy, **Ma Nang Laik**. (2019). Intelligent Time Series Forecasting Through Neighbourhood Search Heuristics. In: Arai K., Kapoor S., Bhatia R. (eds) *Advances in Information and Communication Networks*. FICC 2018. *Advances in Intelligent Systems and Computing*, 887, (434-444). Springer, Cham
- Prakash C. Sunkhwal, **Ma Nang Laik**. (2018). WIGA - A Web-based Interactive Graph Analytics Application for Managing, Visualising and Analysing Big Movement Data. Paper presented in Annual Meeting of the Decision Science Institute Proceedings, DSI 2018, USA.
- **Ma Nang Laik**, Murphy Choy. (2018). Teaching manpower planning using spreadsheet. Paper presented in Annual Meeting of the Decision Science Institute Proceedings, DSI 2018, USA.
- Murphy Choy, **Ma Nang Laik**. (2018). Teaching case: Forecasting and production planning using Decision Science. Paper presented in Annual Meeting of the Decision Science Institute Proceedings, DSI 2018, USA. (One of the best teaching case finalists)
- **Ma Nang Laik**. (2017). Forecasting Passenger Flows Using Data Analytics. In: Benferhat S., Tabia K., Ali M. (eds) *Advances in Artificial Intelligence: From Theory to Practice*. IEA/AIE. Lecture Notes in Computer Science, 10350, (211-220). Springer, Cham
- **Ma Nang Laik**, Tan Kar Wai. (2016). Improving Carbon Efficiency through Container Size Optimization and Shipment Consolidation. Paper presented at The 8th International Conference on Logistics & Transport, ICLT 2016, Singapore.
- Leong Thin Yin, **Ma Nang Laik**. (2016). Cast Article: Bidding for a Construction Project using Spreadsheet Modeling. Paper presented at Annual Meeting of the Decision Science Institute Proceedings, DSI 2016, USA.

- Tay Huay Ling, **Ma Nang Laik**. (2016). Case Article: Teaching Lean Supply Chain using a Simulation Game Approach. Paper presented at Annual Meeting of the Decision Science Institute Proceedings, DSI 2016, USA.

Awards and Scholarships

2016	Winner of EFMD case competition in the Leadership category.
2008 - 2012	Educational Scholarship (Imperial College London) to pursue PhD.
1999 - 2000	Singapore-MIT Alliance Scholarship at NUS to pursue master degree in HPCES.
1995 - 1996	Placed on Dean's list (top 5%) at NUS, School of Science and Mathematics.
1994 - 1995	Placed on Dean's list (top 5%) at NUS, School of Science and Mathematics.

Updated on 6 February 2020