

Oran Kittithreerapronchai

CONTACT INFORMATION	Department of Industrial Engineering Chulalongkorn University, Phayathai Road Bangkok, THAILAND 10330	Voice: (+66) 2218-7881 Fax: (+66) 2251-3969 E-mail: oran.k@chula.ac.th
POSITION	Associate Professor	
CITIZENSHIP	THAILAND	
RESEARCH INTERESTS	Computational algorithms, Warehousing systems, Applied optimization, Logistics systems, and Supply chain management	
ACADEMIC EXPERIENCE	Chulalongkorn University, THAILAND <i>Lecturer</i> October 2010 - Present <ul style="list-style-type: none">• <i>Lecture Subject:</i> Supply Chain Management, Warehousing Management, Operations Management, Optimization, Management of Information System, Computational Methods National University of Singapore, SINGAPORE <i>Research Fellow</i> July 2009 to August 2010 <ul style="list-style-type: none">• Analyzed availability and pricing of Singapore's electricity and natural gas• Modeled a large-scale stochastic model for optimizing natural gas and electricity for a generation company. University of the Thai Chamber of Commerce, Bangkok, THAILAND <i>Guest Lecturer</i> April 18, 2010 <ul style="list-style-type: none">• Lectured a Ph.D-level class on Revenue Management and Supply Chain Coordination. Georgia Institute of Technology, Atlanta, Georgia USA <i>Graduate Research Assistant</i> January 2003 to May 2009 <ul style="list-style-type: none">• Analyzed the Home Depot shipping network and recommended crossdock locations and freight routing• Explored and data-mined a third party logistics company (jointed project with the Supply Chain and Logistics Institute)• Modeled the optimization software for facility location and freight routing with a visualization interface in less-than truckload network• Programmed and analyzed self-organizing truck painting system.• Analyzed Warehouse Management System for S. P. Richards Company <i>Teaching Assistant</i> September 2000 to March 2002 <ul style="list-style-type: none">• Provided in-class support to graduate students (ISyE 6202).• Graded daily assignments and exams.	

Chulalongkorn University, Bangkok, THAILAND

Undergraduate Student

June 1995 to March 1999

- Designed and developed the department's website.

ACADEMIC
SERVICE

Training Projects

- PTT Oil and Retail Business, THAILAND
- Electricity Generating Authority of Thailand, THAILAND
- Thainamthip, THAILAND
- Thai Radiator Manufacturing Group, THAILAND
- Siam Pharmaceutical, THAILAND
- SCG Network Management, THAILAND
- Transportation Institute Chulalongkorn University, THAILAND
- National Science and Technology Development Agency (NSTDA), THAILAND

Consulting Projects

- Tirawat Air Compressor, THAILAND
- Patum Rice Mill and Granary, THAILAND
- Olympus Medical, THAILAND
- Electricity Generating Authority of Thailand, THAILAND
- Home Pro, THAILAND
- Betagro Group, THAILAND
- Food Star Company, THAILAND
- Sikhiw Daily Cooperative, THAILAND
- Bangkok Hospital, THAILAND
- Bureau of Logistics, Ministry of Industry, THAILAND

EDUCATION

Georgia Institute of Technology, Atlanta, Georgia USA

Ph.D., Industrial and Systems Engineering (GPA 3.75)

August 2009

- Thesis Topic: Design of Single Hub Crossdocking Network: Geometric Relationship and Case Study
- Advisor: Professor John J. Bartholdi
- Area of Study: Logistics system, Supply chain management, Network optimization, Discrete time simulation, Economic decision analysis, Management, and Applied mathematics

M.S., Industrial and Systems Engineering (GPA 4.00)

December 2002

- Area of Study: Deterministic optimization, Discrete time simulation, Manufacturing and Logistics

Chulalongkorn University, Bangkok, THAILAND

B.Eng. (Honor), **Industrial Engineering** (GPA 3.36)

March 1999

- Industrial specialization (emphasis on operation research and engineering economics)

SELECTED
PUBLICATIONS

Textbook

- Kittithreerapronchai, O. (2019), *Warehouse and Warehousing Management*, ISBN 978-616-407-372-2, G.P.Cyberprint Bangkok, THAILAND

Health Science

- Kittithreerapronchai, O., Aungatichart, P., Boonyachut, N. (2023) “Improving Utilization of On-Site Physical Examination: An Electronic Factory Study”. *Advances in Transdisciplinary Engineering*, 35, pp. 586–596
- Jiamsanguanwong, A., Ophaswongse, C., Chansirinthorn, C., Kitirattagarn, N., and Kittithreerapronchai, O. (2023). “Improving patients’ experience concerning insufficient informational flow to patients during the COVID-19 pandemic: Case study of a traditional Chinese medicine clinic”. *International Journal of Healthcare Management*.
- Chamnanthongpaivanh, B., Chatchawalsaisinand, J. and Kittithreerapronchai, O. (2022). “Artificial Neural Network and Support Vector Regression Modeling for Prediction of Mixing Time in Wet Granulation”. *Journal of Pharmaceutical Innovation*. 1235-1246
- Supakatisant, T., Sutanthavibul, N., and Kittithreerapronchai, O. (2021). “In-line prediction of secondary drying time from measured ice nucleation temperature during lyophilization process”. *Thai Journal of Pharmaceutical Sciences*, 344-350.
- Jiamsanguanwong, A., Tientrakul, P., Sookseng, F., Ophaswongse, C., and Kittithreerapronchai, O. (2020). “System improvement of medicine delivery service: case study of traditional Chinese medicine”. *International Journal of Healthcare Management*, 1-9.
- Jannoy, T., Kittithreerapronchai, O., and Chatchawalsaisin, J. (2019) “Miscibility classification of drug-carrier mixture for solid dispersion using decision tree”. *35th International Annual Meeting in Pharmaceutical Sciences*
- Lurkittikul, N. and Kittithreerapronchai, O. (2014) “Multi-Criteria Knapsack Problem for Disease Selection in an Observation Ward,” *2014 International Conference on Manufacturing, Optimization, Industrial and Material Engineering*, Jakarta, INDONESIA.

Supply Chain Management

- Walitsarangkul, A., and Kittithreerapronchai, O. (2020). “Storage Allocation For Stocked and Buffer Baskets”, *2nd International Conference on Advances in Materials, Mechanical and Manufacturing*, SINGAPORE.
- Limpayanak, C., and Kittithreerapronchai, O. (2018). “Designing number of Kanban in glove box assembly”. *MATEC Web of Conferences*, THAILAND.
- Promban, M. and Kittithreerapronchai, O. (2017), “Robust Optimization for Coal Transportation Planning”, *Journal of Engineering and Applied Sciences*, vol 12, pp. 5609–5616
- Chatchawan, N. and Kittithreerapronchai, O. (2017), “Improving of an Automated Storage and Retrieval System in a Construction Material Retailer”, *Journal of Engineering and Applied Sciences*, vol 12, pp. 4338–4343

- Wicheanpaisan, N. and Kittithreerapronchai, O. (2014), “Improving raw milk logistics system in a dairy cooperative”, *International Conference on Transportation and Logistics*, Bangkok, THAILAND.
- Kittithreerapronchai, O. and Yampayunsawat, W. (2014), “Truck Capacity Allocation: A Case Study of a Thai Beverage manufacturer”, *International MultiConference of Engineers and Computer Scientists 2014*, Hong Kong, CHINA.
- Yampayunsawat, W. and Kittithreerapronchai, O. (2012) , “Truck Capacity Managing Model for Uncertainty Demand”, *OR-NET 2012 Conference*, Bangkok, THAILAND.
- Kittithreerapronchai, O. (2009) “Geometric relationships of single hub cross-docking networks,” *TRANSLOG 2009 Conference*, Ontario, CANADA.

Misc

- Jirutitijaroen, P., Kim, S., Kittithreerapronchai, O. and Prina, J. (2013) “An optimization model for natural gas supply portfolios of a power generation company,” *Applied Energy*, vol 107, pp. 1–9.
- Kittithreerapronchai, O., Jirutitijaroen, P., and Kim, S. and Prina, J. (2010) “Optimizing Natural Gas Supply and Energy Portfolios of a Generation Company,” *11th International Conference on Probabilistic Methods Applied to Power Systems*, SINGAPORE.
- Luxnanan, C. and Kittithreerapronchai, O. (2015) “Defective Reduction from Solder-Paste Strains on a Flexible Printed Circuit,” *2015 International Conference on Industrial Engineering and Applications*, SINGAPORE.
- Kittithreerapronchai, O. and Anderson, C. (2003) “Market versus response thresholds for distributed dynamic scheduling,” *2003 IEEE Congress on Evolutionary Computation*, Canberra, AUSTRALIA.

PROFESSIONAL EXPERIENCE

Union Footware Public Company Limited, Bangkok, THAILAND

Logistics Engineer

March 2001 to August 2001

- Analyzed and improved the company’s outbound supply chain.
- Supervised the inbound logistics and designed the new plant layout.
- Designed Manufacturing Resource Planning and Warehouse Management System for Nike’s Global Supply Chain team.

Plant Engineer

March 1999 to August 2001

- Designed assemble lines and storage area
- Explored and integrated production data with the control system.

AWARDS

1st Annual International Transportation and Logistics (TRANSLOG) Conference

Best Student Paper Award

June 2009

TECHNICAL SKILLS

Extensive software experience in optimization and visualization

Programming: C, C++, JAVA, UNIX shell scripting, and SQL

Applications: LaTeX, Microsoft Office, Matlab, MAPLE, GAMS, CPLEX, AutoCAD, ArcInfo, ARENA, SPSS, S-plus, Python, and R

Operating Systems: Microsoft Windows and other UNIX variants

MATHEMATICAL
EXPERTISE

Linear and Nonlinear Systems Theory

Probability, Random Variables, Econometric, and Stochastic Processes

Meta-heuristic and Ant Colony heuristic

Engineering Economy and Game Theory