

CHULEEPORN WONGLOUCHA, Ph.D.

ดร.ชูลีพร วงศ์ลือชา



CONTACT

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EDUCATION

- Year 2014 - 2020** **Doctor of Engineering (Industrial Engineering), Faculty of Engineering, Khon Kaen University, Khon Kaen, Thailand**
(Supported by the Thailand Research Fund (Public organization) through the Research and Researchers for Industries-RRi (Grant No. PhD5810041) in collaboration with Rajburi Sugar Co., Ltd, Thailand)
- Year 2017**
(Aug 24 - Dec 23, 2017) **Collaborative Academic Programs**
Department of Business Administration, Faculty of Business, Economics and Statistics, University of Vienna, Vienna, Austria.
(Supported by the Thailand Research Fund (Public organization) through the Research and Researchers for Industries-RRi in collaboration with Rajburi Sugar Co., Ltd, Thailand)
- Year 2010 - 2012** **Master of Engineering (Industrial Engineering), Faculty of Engineering, Khon Kaen University, Khon Kaen, Thailand**
(Supported by Energy management and Conservation Office, Khon Kaen University, Thailand)
- Year 2005 - 2008** **Bachelor of Engineering (Electrical Engineering), Faculty of Engineering, Khon Kaen University, Khon Kaen, Thailand**
(Supported by Provincial Electricity Authority, Khon Kaen, Thailand)

WORK EXPERIENCE

- Year 2020 - Present** **Full-time Faculty, Faculty of Economics, Khon Kaen University**
123 Moo 16 Mittraphap Road, Naimuang, Muang, Khon Kaen, 40002, Thailand.
- Year 2020 - 2021** **Part-time Faculty, General Education Teaching Institute, Khon Kaen University**
123 Moo 16 Mittraphap Road, Naimuang, Muang, Khon Kaen, 40002, Thailand.
- Year 2017 - 2020** **Project Engineer of Research Unit on System Modeling for Industry**
Year 2013 - 2017 **Research Assistant of Research Unit on System Modeling for Industry**
Department of Industrial Engineering, Faculty of Engineering, Khon Kaen University
123 Moo 16 Mittraphap Road, Naimuang, Muang, Khon Kaen, 40002, Thailand.
- Year 2010 - 2017** **Teaching assistant**
Department of Industrial Engineering, Faculty of Engineering, Khon Kaen University
 - Meta-Heuristics and Applications for Agro-Industry
 - Project Feasibility Study
- Year 2009 - 2010** **Production Engineer (Production Department), Kraft Foods (Thailand) Co.,Ltd.**
116 Moo 10, Nam Phong, Nam Phong, Khon Kaen, 40140, Thailand.
- Year 2008**
(Mar 17 - Apr 30, 2008) **Trainee (Maintenance Department), Swarovski gemstones (Thailand) Co.,Ltd.**
333 Moo 17, Bangphli Industrial Estate, Bangsaothong, Samutprakan, 10540, Thailand.

RESEARCH AREA OF EXPERTISE

- Research Area: Supply Chain and Logistics, Optimization, Simulation Model, Scheduling and Sequencing
- Computer Skills: Optimization Program (Lingo/CPLEX), Simulation Program (ARENA), Statistic Program (SPSS)

RESEARCH PROJECT

Current Research Projects (*in progress*)

- **Co-Investigator:** Development of Enterprise Resource Planning Systems Using the Odoo Application for the Agricultural and Food Industry Business Groups, 2025 (Supported by Fundamental Fund 2025, Thailand Science Research and Innovation, TSRI, Organization: Khon Kaen University, Thailand)
- **Co-Investigator:** A Decision-Making System for Flood Victims Evacuation Planning Logistics System, 2024 (Supported by Fundamental Fund 2024, Thailand Science Research and Innovation (TSRI), Organization: Department of Disaster Prevention and Mitigation, Ministry of Interior, Thailand)

Completed Research Projects

Digital Business Transformation

- *Co-Investigator*: Project to Analyze and Synthesize Data to Drive Competitiveness in the Logistics and Rail Industry through the Science Promotion Fund Research and Innovation for the Year 2024, 2024 (Supported by Program Management Unit Competitiveness (PMUC))
- *Co-Investigator*: Research Project on Logistics and Rail Systems 2023, 2023 (Supported by Program Management Unit Competitiveness, (PMUC))
- *Co-Investigator*: Econ Software as a Service, 2021-2024 (Supported by Faculty of Economics, Khon Kaen University, Thailand)
- *Co-Investigator*: A Project to Develop Teaching Content for a Short Course: Course for Installing an ERP System for Food Businesses by Using the Odoo Application, 2022 (Supported by Faculty of Economics, Khon Kaen University, Thailand)
- *Co-Investigator*: SME Credit Rating Database Phase III, 2022 (Office of Small and Medium Enterprise Promotion (OSMEP), Ministry of Industry, Thailand)
- *Co-Investigator*: SME Credit Rating Database Phase II, 2021 (Office of Small and Medium Enterprise Promotion (OSMEP), Ministry of Industry, Thailand)
- *Co-Investigator*: Project on analysis of logistics structure for tourism transportation in the southern and western regions, 2020 (Supported by Program Management Unit Competitiveness, (PMUC))

Supply Chain and Logistics System in Cane and Sugarcane Industry

- *Research Coordinator*: Integrated management System of Cane and Sugar Industry, 2015 (Supported by Rajburi Sugar Co., Ltd, Thailand)
- *Research Coordinator*: Smart Cane Supply through Advance Information Technology, 2015 (Supported by the Thailand Research Fund (Public organization), Thailand)
- *Research Coordinator*: The Development of Sugarcane Harvest and Transportation System for Small Sized Growers in Sugarcane Supply Chain System, 2014 (Supported by the Thailand Research Fund (Public organization), Thailand)
- *Research Coordinator*: Supply Chain Strategies for Enhancing Competitiveness for Sugarcane Industry in Preparation for the AEC Framework, 2013 (Supported by the Thailand Research Fund (Public organization), Thailand)
- *Research Coordinator*: Supply Chain Redesign for Sugarcane Industries in Preparation for the AEC Framework, 2012 (Supported by the Thailand Research Fund (Public organization), Thailand)

Supply Chain and Logistics System in Food and Beverage (Cold Chain)

- *Research Coordinator*: Food Cold Chain and Proper Packaging Phase III, 2015 (Supported by the Bureau of Logistics, Department of Primary Industries and Mines, Ministry of Industry, Thailand)
- *Research Coordinator*: Food Cold Chain and Proper Packaging Phase II, 2014 (Supported by the Bureau of Logistics, Department of Primary Industries and Mines, Ministry of Industry, Thailand)
- *Research Coordinator*: Food Cold Chain and Proper Packaging Phase I, 2013 (Supported by the Bureau of Logistics, Department of Primary Industries and Mines, Ministry of Industry, Thailand)

Supply Chain and Logistics System in Palm Oil Industry

- *Research Coordinator*: Development of Decision Support System for Enhancing a Community Palm Oil Refinery Factory with Collaboration of All Stakeholder, 2017 (Supported by Agricultural Research Development Agency (Public organization), Thailand)
- *Research Coordinator*: Sustainably Participative Management System for Palm Oil Production in the Preparation of the GAP and RSPO Standards, 2013 (Supported by Agricultural Research Development Agency (Public organization), Thailand)

Supply Chain and Logistics System in the Energy Sector

- *Research Coordinator*: The Study and Promotion Planning of Technology and Innovation in Energy Efficiency in Agriculture (Group 1 Agricultural Sector (Agronomy and Horticulture)), 2019 (Supported by Department of Alternative Energy Development and Efficiency, Ministry of Energy, Thailand)
- *Research Coordinator*: Project Evaluation and Verification of Labeling of High-Performance Equipment, 2017 (Supported by Department of Alternative Energy Development and Efficiency, Ministry of Energy, Thailand)
- *Research Coordinator*: Logistics system for Energy Reduction in the Production and Distribution of Ice-Manufacturing Industry, 2015 (Supported by Energy Policy and Planning Office, Ministry of Energy, Thailand)
- *Research Coordinator*: Logistics System of Transport Management for Agro Industry, 2014 (Supported by Energy Policy and Planning Office, Ministry of Energy, Thailand)

RESEARCH PUBLICATIONS

- (1) Puspanantasari, E.*, Parinov, I. A., & **Wongloucha, C.** (2024). Efficiency Evaluation in Indonesia's Quarrying Industry Using Variable Combinations DEA. *Spektrum Industri*, 22(2), 90-110. (**DOAJ, Crossref, Google Scholar, Indonesian Publication Index (IPI)**)
- (2) Thumrongvut P., Sethanan K.*, Jamrus T., **Wongloucha C.**, Pitakaso R., & Golinska-Dawson P. (2022) Metaheuristics in Business Model Development for Local Tourism Sustainability Enhancement. *Mathematics*, 10 (24). <https://doi.org/10.3390/math10244750> (**ISI, Q1, Impact Factor 2022: 2.592**)

- (3) Thumrongvut, P., Sethanan, K.*, Jamrus, T., & **Wongloucha, C.** (2022). Business Model for Improving Local Tourism Sustainability. In *Proceedings of the 16th International Congress on Logistics and SCM Systems (ICLS2022)*, August 29-30, 2022, Khon Kaen, Thailand.
- (4) Thumrongvut, P., Sethanan, K.*, Jamrus, T., **Kusoncum, C.**, & Worasan, K. (2022). A Mathematical Model for Service Scheduling Problem of Tourism Enterprises in Thailand with Soft Time Windows. *Ladkrabang Engineering Journal*, 39 (1). **(TCI, TIER 1, 2022)**
- (5) Wongloucha, K., Jamrus, T*, **Kusoncum, C.** & Pattanapairoj, S., (2022). A Mathematical Model for Flood Victims Evacuation Planning: A case study of flooded areas in Roi Et province from Typhoon Podul and Kajiki in 2019. *KKU Research Journal (Graduate Studies)*, 22(3), 110-126. **(TCI, TIER 1, 2022)**
- (6) Jitjakr, S., Sethanan, K.*, Jamrus, T. **Kusoncum, C.** & Pattanapairoj, S., (2021). A Mathematical Model for The Cropland Allocation to Improve Vegetable Production Performance of Smallholder Farmers in Thailand. *KKU Research Journal (Graduate Studies)*, 21(4), 36-47. **(TCI, TIER 1, 2021)**
- (7) Boonsuchat, S., Sethanan, K.*, Jamrus, T., **Kusoncum, C.**, & Pattanapairoj, S. (2021). Mechanical Harvester Route Planning of Sugarcane Harvesting with Field Conditions and Types of Mechanical Harvester. *KKU Research Journal (Graduate Studies)*, 21(4), 24-35. **(TCI, TIER 1, 2021)**
- (8) Putri, E. P., **Kusoncum, C.**, Putri, E. P., & Abdulrahim, M. (2020). Performance Evaluation Using PCA-CRS Input Oriented DEA Method: A Case Study of East Java Exports in Indonesia to ASEAN Country. In *Proceedings of the 2019 International Conference on Physics and Mechanics of New Materials and Their Applications*, Nova Science Publishers, New York (pp. 425-432).
- (9) **Kusoncum, C.**, Sethanan, K.*, Pitakaso, R., & Hartl, R. F. (2020). Heuristics with novel approaches for cyclical multiple parallel machine scheduling in sugarcane unloading systems. *International Journal of Production Research*, 1-19. **(ISI, Q1, Impact Factor 2018: 3.199)**
- (10) **Kusoncum, C.**, Sethanan, K.*, Hartl, R., & Jamrus, T. (2019). The Modified Differential Evolution and Heuristic Algorithms for Dump Tippler Machines Allocation in Sugar Mills. *Operational Research*, (In process). **(ISI, Q3, Impact Factor 2018: 1.485)**
- (11) **Kusoncum, C.**, Sethanan, K.*, Pattanapairoj, S., & Jamrus, T. (2019). An Optimization for Scheduling and Sequencing of Sugarcane Truck to Tippler Dump System in Cane and Sugar Industry in Thailand. *KKU Research Journal (Graduate Studies)*, 19(4), 111-126. **(TCI, TIER 1)**
- (12) **Kusoncum, C.**, Sethanan, K.*, Putri, E. P., & Neungmachacha, W. (2018). Simulation-based approaches for processes improvement of a sugar mill yard management system: A case study of the sugar industry in the central region of Thailand. *Engineering and Applied Science Research*, 45(4), 320-331. **(SCOPUS, Q4, SNIP 2018: 0.033)**
- (13) **Kusoncum, C.**, Sethanan, K.*, & Moonsri, K. (2017). Simulation-based Approaches for Reduction of Time in the System of Vehicles in Sugar Mill Yard Management. In *Proceedings of the SIMMOD2017 Conference*, Pattaya, Thailand (pp. 47-65).
- (14) **Kusoncum, C.**, Sethanan, K.*, & Sangsawang, C. (2015). Development of Heuristics in Sugarcane Harvest Scheduling for Mechanical Harvester in Sugarcane Supply Chain. In *Toward Sustainable Operations of Supply Chain and Logistics Systems* (pp. 391-404). Springer, Cham. **(E-Book)**
- (15) **Kusoncum, C.**, Sethanan, K.*, & Sangsawang, C. (2015). Development of Heuristics in Sugarcane Harvest Scheduling for Mechanical Harvester in Sugarcane Supply Chain. In *Proceedings of the ICLS2015 Conference*, Chiang Mai, Thailand (pp. 27).
- (16) **Kusoncum, C.**, Sethanan, K.*, Benjapiyaporn, C. (2013). Sugarcane harvest and transportation management models for small growers: a case study of mitr kalasin sugar mill. In *Proceedings of the 9th International Conference on Intelligent Manufacturing & Logistics Systems International Symposium on Manufacturing Intelligence*, Feb.27th – Mar.2nd, 2013, Radisson Hotel Shanghai China.
- (17) Sethanan, K.*, Chetchotsak, D., Tongsookhowong, A., Chaikanha, N., & **Kusoncum, C.** (2012). Inbound logistics models for Thai Sugar Industry in preparation for the AEC framework. In *Proceedings of the APIEMS2012 Conference*, Phuket, Thailand (pp. 608-617).

TEACHING EXPERIENCE:

Faculty of Economics, Khon Kaen University

- EC101007 Mathematical Economics (Th.)
- EC111007 Mathematical Economics (Eng.)
- EC101014 Computational Skills in Mathematics (Th.)
- EC111014 Computational Skills in Mathematics (Eng.)
- EC113019 Applied Data Analytics in Supply Chain and Logistics Management (Eng.)
- EC113020 Supply Chain and Operation (Eng.)
- EC102011 Research Methodology in Economics (Eng.)
- EC112011 Research Methodology in Economics (Eng.)
- EC114018 Seminar in Applied Economics (Eng.)

General Education Teaching Institute, Khon Kaen University

- Creative Entrepreneurship
- Learning Skills