

# CV

## CHAWIS BOONMEE

DEPARTMENT OF INDUSTRIAL ENGINEERING,  
FACULTY OF ENGINEERING, CHIANG MAI UNIVERSITY, THAILAND

### RESEARCH INTERESTS

- Optimization
- Modern Production & Industrial system
- Operation & Supply Chain Management
- Lean Manufacturing System
- Material Flow Cost Accounting (MFCA)
- Decision making
- Humanitarian logistics
- Disaster management
- Machine learning
- Healthcare management

### SKILLS

#### **Computer:**

@risk, Arena, Minitab, Input analyzer, Lingo, QGIS, C#, R programming, Python and NX6

#### **Language:**

Thai, English, and Japanese

#### **Other:**

Volleyball, Lanna music and Lanna dance



### CURRENT WORKS

#### **LECTURER**

**DEPARTMENT OF INDUSTRIAL ENGINEERING, FACULTY OF ENGINEERING, CHIANG MAI UNIVERSITY**

Duration: March 1, 2019 - Now

#### **HEAD OF PROJECT**

**RESEARCH PROJECT: MIXED INTEGER LINEAR PROGRAMMING MODEL FOR SCHEDULING OF RADIOTHERAPY TREATMENTS**

Foundation: CMU Young Researchers Scholarship 2021

Duration: April 1, 2021 - March 30, 2022

#### **RESEARCHER**

**CENTER OF HEALTHCARE ENGINEERING SYSTEM**

Head of project: Associate Professor Wichai Chattinnawat, Ph.D.

Duration: January 1, 2020 - Now

### EDUCATION

**DOCTORAL DEGREE · SUSTAINABLE AND ENVIRONMENTAL ENGINEERING · MURORAN INSTITUTE OF TECHNOLOGY · JAPAN (GPA: 4.00)**

Topic: A study of optimal facility location problem in disaster management and humanitarian logistics

(Japanese Government (MONBUKAGAKUSHO-MEXT) Scholarship)

**MASTER'S DEGREE · INDUSTRIAL ENGINEERING · CHIANG MAI UNIVERSITY · THAILAND (GPA: 4.00)**

Topic: Distribution network optimization considering backhaul in supply chain management

(M. Eng - CMU Scholarship)

**BACHELOR'S DEGREE · INDUSTRIAL ENGINEERING · CHIANG MAI UNIVERSITY · THAILAND (GPA: 3.49 (SECOND-CLASS HONORS))**

Topic: Productivity Improvement in Goods Transportation via Bus

Container Case study: Chaipattana Transportation Chiang Mai Co., Ltd.

(Energy Research and Development Institute - Nakornping Scholarship)

## JOURNALS

- 2021 Boonmee, C. & Phongthiya, T. (2021). The Selection of Body Temperature Measurement System for COVID-19 by TOPSIS Technique, The Journal of KMUTNB. (Submitted)
- 2021 Boonmee, C. Arimura, M. & Kasemset, C. (2021). Post-disaster waste management with carbon tax policy consideration, Energy Reports. (In Press)
- 2021 Akarawongsapat, K., Khwanngern, K. & Boonmee, C. (2020). Development of a mathematical model for cleft lip and cleft palate patient treatment scheduling. UBU Engineering Journal. (In Press)
- 2021 Boonmee, C., Kasemset, C., Pichayapan, P., Thovichit, P., Panichakarn, B. (2020). Analysis and Design of Activities, Infrastructures and facilities for Developing Fishery Product Distribution center in Northern Thailand. UBU Engineering Journal, 14(1), 14-29.
- 2021 Kasemset, C., Pangsuta, T., & Boonmee, C. (2021). The Application of Revenue Management in Chilled Storage Area Allocation: Simulation Study. Chiang Mai University Journal of Natural Sciences, 20(2): e2021029.
- 2020 Boonmee, C., Chamchanya, S. & Atsawakpawitphong, P. (2020). Temporary Shelter-Site Selection During PM 2.5 Air Pollution Disaster Via Analytic Hierarchy Process: A Case Study of Chiang Mai University. Naresuan University Engineering Journal, 15(2), 75-89.
- 2020 Boonmee, C., Kosayanon, A., Chitapanarux, I., & Kasemset, C. (2020). Radiotherapy Service Improvement: Simulation Study. Industrial Engineering & Management Systems, 19(4), 758-773.
- 2020 Boonmee, C., & Kasemset, C. (2020). The Multi-Objective Fuzzy Mathematical Programming Model for Humanitarian Relief Logistics. Industrial Engineering & Management Systems, 19(1), 197-210.
- 2020 Kasemset, C., Boonmee, C., & Arakawa, M. (2020). Traffic Information Sign Location Problem: Optimization and Simulation. Industrial Engineering & Management Systems, 19(1), 228-241.
- 2020 Boonmee, C., & Kasemset, C. (2020). Application of Simulation Technique for Refrigerated Truck Sequencing Based on Job Sequencing Policies. Thammasat Engineering Journal, 6(1), 35-45.
- 2018 Boonmee, C., Mikiharu, A. & Takumi, A. (2018) Location and Allocation Optimization for Integrated Decisions on Post-Disaster Waste Supply Chain Management: On-site and Off-site Separation for Recyclable Materials. International Journal of Disaster Risk Reduction, Vol. 31(2018), p. 902-917.
- 2018 Boonmee, C., Takumi, A., & Mikiharu, A. (2018) A Bi-Criteria Optimization for Hierarchical Evacuation and Shelter Site Selection under Uncertainty of Flood Events. Journal of the Eastern Asia Society for Transportation Studies, Vol. 12(2017), p. 251-268.
- 2017 Boonmee, C., Takumi, A., & Mikiharu, A. (2017) Improving Evacuation Planning and Shelter Site Selection for Flood Disaster: Thai Flooding Case Study. Journal of Japan Society of Civil Engineers, Ser. D3 (Infrastructure Planning and Management), Vol. 73(5), p. 253-267.
- 2017 Boonmee, C., Naotaka, I., Takumi, A., & Mikiharu, A. (2017) An Integrated Multi-Model Optimization and Fuzzy AHP for Shelter Site Selection and Evacuation Planning. Journal of Japan Society of Civil Engineers, Ser. D3 (Infrastructure Planning and Management), Vol. 73(5), p. 225-240.
- 2017 Boonmee, C., Mikiharu, A. & Takumi, A. (2017) Facility Location Optimization Model for Emergency Humanitarian Logistics, International Journal of Disaster Risk Reduction, Vol. 24, p. 485-498.
- 2016 Naotaka, I., Takumi, A., Boonmee, C., & Mikiharu, A. (2016). Built on The Local Disaster Prevention Education tool using Evacuation Drill Probe Data. Journal of Japan Society of Civil Engineers, Vol. 72(5), p. 331-339. (Japanese)
- 2015 Kasemset, C. & Boonmee, C. (2015). Different Cost Allocation Methods in Material Flow Cost Accounting: A Case Study of Waste Reduction in Thai Meatball Production. Chiang Mai University Journal of Natural Sciences Special Issue on Logistics and Supply Chain Systems, Vol. 18(4), p. 379-388.
- 2014 Boonmee, C. & Kasemset, C. (2014). Optimization of Distribution Network with Backhaul, International Federation of Logistics and SCM Systems, Vol. 8(1), p. 21-28.
- 2014 Boonmee, C. & Kasemset, C. (2014). The Application of Distribution Network Optimization: Case Study of Canned Fruit Industry, Thai Journal Operation Research, Vol. 2(2), p. 1-10. (Thai)

- 2014 Kasemset, C, Sriphen, C & Boonmee, C (2014). Application of Material Flow Cost Accounting Analysis Technique for Reworks Reduction. *UBU Engineering Journal*. 1(7). p. 24-16 (Thai)

## PROCEEDING OF CONFERENCES

- 2021 Boonmee, C. Pisutha-Arnond, N., Chattinnawat, W., Muangwong, P., Nobnop, W., & Chitapanarux, I. (2021). Decision Support System for Radiotherapy Patient Scheduling: Thai Cancer Center Case Study. In 2021 4th International Conference on Healthcare Service Management (ICHSM 2021). (In Press)
- 2021 Thoenburin, P., & Boonmee, C. (2021). Criteria Ranking for Safe Zone Site Selection During PM. 2.5 Crisis using Fuzzy Analytical Hierarchy Process. In OR-Net Conference 2021 (ORNET 2021), Ramkhamhaeng University, Thailand, May 13 - 15 2021.
- 2021 Thetsana, S., & Boonmee, C. (2021). Defective Reduction in Necklace Production: A Case Study of a Jewelry Factory. In OR-Net Conference 2021 (ORNET 2021), Ramkhamhaeng University, Thailand, May 13 - 15 2021.
- 2019 Boonmee, C., Kasemset, C., Pichayapan, P., Thovichit, P., & Panichakarn, B. (2019, December). A Conceptual Design of Infrastructures and Facilities in Distribution Center for Frozen and Chilled Fishery Products. In 2019 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM) (pp. 175-179). IEEE.
- 2019 Boonmee, C & Kasemset, C. (2019). The Improvement of Healthcare Management in Thailand via IE Tools: A Survey. *Proceeding of the 2019 International Conference on Industrial Engineering and Operations Management*, Bangkok, March 5-7. p. 264-274.
- 2017 Kasemset, C. & Boonmee, C. (2017). An Integration Method of MFCA, Dynamic Programming, and Multiple Criteria Decision Making in Operations Improvement: A Case Study. *Proceeding of the 2017 International Conference on Industrial Engineering and Engineering Management (IEEM)*, Singapore, December 10 - 13, p. 1844-1853.
- 2017 Boonmee, C., Takumi, A., & Mikiharu, A. (2017) The Multi-Objective Fuzzy Mathematical Programming for Facility Location Problem in Humanitarian Relief Logistics, In *Proceedings of Joint Symposium on Mechanical - Industrial Engineering, and Robotics 2017*, Chiang Mai University, Thailand, November 15 - 17, 2017.
- 2017 Kazuma, M., Naotaka, I., Takumi, A., Boonmee, C., & Mikiharu, A. (2017). Analysis of Relationship between Disaster Prevention Consciousness and Evacuation Required Time in Muroran city, In *Proceedings of Joint Seminar on Environmental Science and Disaster Mitigation Research 2017 (JSED2017)*, March 2, 2017, pp. 93-94.
- 2016 Boonmee, C., Takumi, A., & Mikiharu, A. (2016) Improving evacuation planning and shelter site selection for flood disaster: A stochastic approach, In *Proceedings of infrastructure planning in Japan Society of Civil Engineers*, Vol. 54, p. 2313-2321.
- 2016 Boonmee, C., Naotaka, I., Takumi, A., & Mikiharu, A. (2016) Multi-model optimization for shelter-site selection: A case study in Banta municipality, Thailand, In *Proceedings of infrastructure planning in Japan Society of Civil Engineers*, Vol. 53, p. 2175-2181.
- 2016 Kasemset, C., Boonmee, C., & Khuntaporn P. (2016). Application of MFCA and ECRS in Waste Reduction: A Case Study of Electronic Parts Factory, *Proceeding of the 2016 International Conference on Industrial Engineering and Operations Management*, Malaysia, March 8-10, p. 1844-1853.
- 2015 Naotaka, I., Takumi, A., Boonmee, C., & Mikiharu, A. (2015). Built on The Local Disaster Prevention Education tool using Evacuation Drill Probe Data. In *Proceedings of infrastructure planning in Japan Society of Civil Engineers*, Vol. 52, (Japanese)

- 2015 Boonmee, C & Kasemset, C. (2015). A Conceptual Model for combining MFCA and Dynamic Programming. Joint Symposium on Mechanical-Industrial Engineering and Robotics 2015, Muroran Institute Technology, Japan, May 29 - 30, 2015.
- 2015 Chaiwan, W., Boonmee, C., & Kasemset, C. (2015). Waste Reduction in Meat Processing Industry: The Application of MFCA (ISO 14051). In Toward Sustainable Operations of Supply Chain and Logistics Systems (pp. 183-193). Springer International Publishing.
- 2015 Boonmee, C & Kasemset, C. (2015). Simulation of Distribution Network Optimization: Case Study of Canned Fruit Industry. OR-Net Conference 2015, Kasetsart University, Thailand, March 26 - 27 2015. (Thai)
- 2015 Boonmee, C & Kasemset, C. (2015). Optimization of Distribution Network with Backhaul, International Journal of Logistics and SCM System, Vol. 8, p. 21-18.
- 2014 Boonmee, C & Kasemset, C. (2014). Distribution Network Optimization Considering Backhaul in Supply Chain Management. OR-Net Conference 2014, Naresuan University, Thailand, September 6 - 8 2014. (Thai)
- 2013 Boonmee, C & Kasemset, C. (2013). Operations Improvement in Goods Transportation: A Case study. Joint Symposium on Mechanical-Industrial Engineering and Robotics 2013, Chiang Mai University, Thailand, November 14 - 17, 2013.
- 2013 Boonmee, C & Kasemset, C. (2013). Productivity Improvement in Goods Transportation via Bus Container Case study: Chaipattana Transportation Chiang Mai Co., Ltd. The 20<sup>th</sup> Tri-University International Joint Seminar & Symposium 2013, Mie University, Japan, October 28 - November 1, 2013.

## ACTIVITIES/PRIZES

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- Best Presentation Award of 2021 4th International Conference on Healthcare Service Management (ICHSM 2021) (Topic: Decision Support System for Radiotherapy Patient Scheduling: Thai Cancer Center Case Study)
- Best Presentation Award of 2021 6th International Conference on Advances on Clean Energy Research Barcelona, Spain (2021) (Topic: Post-disaster waste management with carbon tax policy consideration)
- Best Presentation Award of 2021 4th International Conference on Healthcare Service Management, Kyoto, Japan (2021) (Topic: Decision Support System for Radiotherapy Patient Scheduling: Thai Cancer Center Case Study)
- Best Track Paper Award of 2019 IEOM Bangkok Conference, Thailand (2019) (Topic: The Improvement of Healthcare Management in Thailand via IE Tools: A Survey)
- Outstanding presentation award of the 12th EASTS international conference at Ho Chi Minh City, Vietnam. (2017)
- A president of master's degree student, Faculty of Engineering, Chiang Mai University. (2014)
- Best workshop Award under theme "Energy" at the 20th Tri-University International Joint Seminar & Symposium 2013, Mie University, Japan (2013)
- Joint the Lectures on Japan and its Corporate Culture at Chiang Mai University under Human Resourced Program-Getting to know Japan. (2012)
- A president of bachelor's degree student in Industrial Engineering, Faculty of Engineering, Chiang Mai University. (2011)
- A vice president of Lanna Club, student union of Chiang Mai University. (2010)
- An organizer of Innovative Prototype of Garbage and Waste Materials Contest, 40th anniversary, Faculty of Engineering, Chiang Mai University
- Won a gold prize in Junior food and drug official Project of Thailand Food and Drug Administration

## WORK EXPERIENCES

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October 2019 -September 2020	Head of project: A study of infrastructure and optimal site selection for safe zones and healthcare service centers in air pollution disaster: A Thai case study Foundation: Murata Science Foundation (MSF) 2019
January 15, 2019 – December 14, 2019	Research assistant of research project “Analysis and Design of Logistics System Infrastructures and facilities in Distribution Center for Fishery Products Connecting Lower Northern Provinces to Nearby Countries”
October 2018 -September 2019	Researcher of Research Project “Application of Theory of Constraints in Health Care Service Improvement using Simulation” Foundation: Murata Science Foundation (MSF) 2018 Head of project: Associate Professor Dr. Chompoonoot Kasemset
August -September 2016	Internship at Docon Consultant Company, Japan
January -May 2015	Research Assistant of Skill Development project, Thailand
June -December 2014	Research Exchange student in Muroran IT, Japan
June 2013 -May 2014	Teacher Assistant in Statistics, Operations Research, Drawing and Basic Computer at Chiang Mai University, Thailand
April -October 2012	Internship at Chaipattana Transportation Chiang Mai Co., Ltd. ( <i>Cooperative Education</i> )
18-25 November 2010	A Representative to participate in Friendship Project, Thailand, Laos, No. 8, Souphanouvong University of Laos
November-July 2009	A volunteer of exchange young students in Thailand project