WIMALIN SUKTHOMYA LAOSIRITAWORN

Department of Industrial Engineering
Faculty of Engineering
Chiang Mai University

EXPERIENCE

1996-2006	Lecturer in Industrial Engineering
1998	Head of document control for ISO9000 certification at Department of Industrial Engineering, Chiang Mai University
2001-2004	Post graduated researcher at Rolls Royce University Technology Centre (University of Nottingham)
2005-2012	Program Chairperson for Bachelor degree in Industrial Engineering, Chiang Mai University
2006-2009	Assistant professor in Industrial Engineering
2008-2012	Deputy Head of Department at Department of Industrial Engineering, Chiang Mai University
2009-present	Associate professor in Industrial Engineering

EDUCATION

1993-1996	Bachelor in Industrial Engineering (First Class Hohor)	Mahidol University, Thailand
2000	Master of Science in Engineering Business Management	University of Warwick, United Kingdom
2001-2004	Doctor of Philosophy in Manufacturing Engineering and Operations Management	University of Nottingham, United Kingdom

AWARD

1999	Royal Thai Government Scholarship for Master degree
2000	Royal Thai Government Scholarship for Doctoral degree
2003	Best Poster Award of Operation Management Group, School of Engineering, Nottingham University
2016	Best Track Papers Awards from the Sixth International Conference on Industrial Engineering and Operations Management, Kuala Lumpur, Malaysia, March 8-10, 2016, “Ceramics Process Improvement with Material Flow Cost Accounting”
2016	Best Poster Presentation, Research and Researchers for Industries (RRI) Congress II, Thailand Research Fund, Bangkok; August 1, 2016, “Improving Swage Hole Measurement with Coordinate Measuring Machine”
2018	Excellent Oral Presentation, 7th International Conference on Industrial Technology and Management (ICITM 2018); Oxford UK; March 7-9, 2018, “Modeling of the Relationship Between Corporate Social Responsibility and Stock Price with Artificial Neural Network”

CERTIFICATIONS

2018 RapidMiner certified analyst

TEACHING COURSES

- Industrial Organization and Management
- Engineering Economy
- Supply Chain and Operation Management
- Research Techniques in Industrial Engineering
- Modern Techniques for Industrial Data Analysis
- Data Mining Techniques for Industrial Applications
- Advanced Quality Improvement
- Industrial Engineering Seminar
- Industrial Engineering Laboratory

GUEST LECTURE

- Operation Management at Chiang Mai Rajabhat University,
- Information and communication Technology Economy, North Chiang Mai University, Master program in Information Communication Technology

PUBLICATIONS

- **JOURNALS**

1. **Sukthomya, W.,** and Tannock, J.D.T., 2005, The training of neural networks to model manufacturing processes, *Journal of Intelligent Manufacturing.* 16(1). pp.39-51. (impact factor: 0.595)
2. **Sukthomya, W.,** and Tannock, J.D.T., 2005, Taguchi Experimental design for manufacturing process optimisation using historical data and a neural network process model. *International Journal of Quality and Reliability Management*. 22(5). pp.485-502.
3. **Sukthomya, W.,** and Tannock, J.D.T., 2005, The optimisation of neural network parameters using Taguchi design of experiments approach: an application in manufacturing process modeling. *Neural Computing & Applications*. 14(4) pp. 337 – 344. (impact factor: 0.167)
4. **Laosiritaworn, W**., Khamman, O., Ananta, S., Yimnirun, R., and Laosiritaworn, Y., 2008, Artificial neural network modeling of ceramics powder preparation: Application to $NiNb_2O_6$. *Ceramics International*. 34, pp.809-812. (impact factor: 1.36)
5. **Laosiritaworn, W**., 2008 Application of artificial neural network to calculate curie temperature of ferromagnetic materials, *Advanced Material Research*, Vol. 55-57, pp.901-904.
6. Holimchayachotikul, P. and **Laosiritaworn, W**., 2008, Modeling and optimization of ultrasonic cleaning process for hard disk drive arm using support vector regression, *KKU Research Journal*, Vol. 13, No. 3, pp.415 – 421
7. **Laosiritaworn, W**. and Chotchaithanakorn, N., 2009, Artificial neural networks parameters optimization with design of experiments: An application in ferromagnetic materials modeling, *Chiang Mai Journal of Science*, 36(1). pp.83-91.
8. **Laosiritaworn, W.** and Laosiritaworn, Y., 2009, Artificial neural network modeling of mean-field Ising hysteresis, *IEEE Transaction on Magnetics*, 14(6). pp.2644-2647 (impact factor: 0.9959, 2007)
9. **Laosiritaworn, W.**, Yimnirun, R. and Laosiritaworn, Y., 2010, Artificial neural network modeling of ferroelectric hysteresis: An application to Soft Lead Zirconate Titanate ceramics, *Key Engineering Materials*, 421-422. pp. 432-435. (impact factor: 0.224, 2005)

10. **Laosiritaworn, W.**, Ngamjarurojana, A., Yimnirun, R. and Laosiritaworn, Y., 2010, Modeling of Ferroelctric Hysteresis Area of Hard Lead Zirconate Titanate Ceramics: Artificial Neural network Approach, *Ferroelectics*, 401. pp.233-238. (impact factor: 0.447, 2009)
11. **Laosiritaworn, W.**, Wongdamnern, N., Yimnirun, R. and Laosiritaworn, Y., 2011, Concurrent Artificial Neural Network Modeling of Single-Crystal and Bulk Ceramics Ferroelectric-Hysteresis: An Application to Barium Titanate, *Ferroelectrics*, 414. pp. 90-96. (impact factor: 0.511, 2010)
12. Srinoi, S., Kanchiang, K**., Lasiritaworn, W**., Yimnirun, R., and Laosiritaworn, Y., 2011, Ferroic Hysteresis Modeling, *Integrated Ferroelectrics: An International Journal*, Vol.131, pp. 202-218.(impact factor: 0.264, 2010)
13. **Laosiritaworn, W.S**., 2011, Supply Chain Forecasting Model Using Computational Intelligence Techniques, *Chiang Mai University Journal of Natural Science*, Vol.10(1), pp. 19-28.
14. **Laosiritaworn, W.** and Laosiritaworn, Y., 2012, Time Resolved Effect of Heat Dispersion on Magnetic Stability in Ferromagnetic Ising Thin-Films: Monte Carlo Simulation, *Journal of Magnetic*, Vol. 14(4), pp. 233-241. (impact factor: 0.659, 2011)
15. **Laosiritaworn, W.** and Bunjongjit, T., 2013, Classification Techniques for Control Chart Pattern Recognition: A Case of Metal Frame for Actuator Production, *Chiang Mai Journal of Science*, 40(4). pp.701-712. (impact factor: 0.473, 2011)
16. **Laosiritaworn,** W., Laosiritaworn, Y., 2013 Artificial Neural Network Modeling of Spin-Transition Behavior in Two Dimensional Molecular Magnet: The Learning by Experiences Analysis, *Polyhedron*, Vol. 66. pp.108-115. (impact factor: 2.057, 2011)
17. **Laosiritaworn, W.,** Kanchiang , K., Laosiritaworn., Y., 2013 The Artificial Neural Network Modeling of Dynamic Hysteresis Phase-Diagram: Application on Mean-Field Ising Hysteresis, *Advanced Materials Research*, 813. pp.16-19.
18. Laosiritaworn, Y., **Laosiritaworn,** W., 2013 The competition Effect of Strain and Interatomic Distance on Ferromagnetic Critical Temperature in Ising Ultra-Thin-Film: Monte Carlo Simulation, *Advanced Materials Research*, Vol.813, pp.311-314.
19. **Laosiritaworn,** W., Laosiritaworn, Y., 2013 Monte Carlo Simulation and Artificial Neural Network Modeling of Ferro and Antiferro-Transition Behavior in Two Dimensional Binary Alloy, *Applied Mechanics and Materials*, Vol. 431, pp. 61-65.
20. Laosiritaworn, Y., **Laosiritaworn,** W., 2014 Concurrent modeling of magnetic field parameters, crystalline structures, and ferromagnetic dynamic critical behavior relationships: Mean-field and artificial neural network projections, *Journal of Magnetics*, Vol. 19(4). pp. 315-322.
21. Laosiritaworn, Y., **Laosiritaworn,** W., 2015, Monte Carlo investigation of spatially adaptable magnetic behavior in stretchable uniaxial ferromagnetic monolayer film, *Journal of Magnetics*, Vol. 20(1). pp. 11-20.
22. **Lasiritaworn, W**., Yimnirun, R., and Laosiritaworn, Y., 2015, The knowledge-based modeling of ferroelectric hysteresis area: An application to forming (1-x)PZT-(x)PZN hysteresis, *Integrated Ferroelectrics*, Vol.166, pp. 65-73.

- **PROCEEDINGS**

1. **Sukthomya, W**., and Tannock, J.D.T., 2002, The implementation of Taguchi experimental design using historical data: A case study in discrete part manufacture. Proceedings of the 3rd International Conference on Quality and Reliability, ed. Subic, A.J., Tsang, H.C., Tang, C.Y., & Netherwood, G., Melbourne, Australia, pp. 166-174.
2. **Sukthomya, W.,** 2005, The training of neural networks for process modeling: Taguchi approach for the optimization of neural networks. Proceeding of the Industrial Engineering Network Conference, Chiang Mai, Thailand.
3. **Sukthomya, W.,** Ramingwong, R., and Wattanutchariya, W., 2006, The project feasibility study of parboiled glutinous rice coated with iron. Proceeding of the International Conference on Green and Sustainable Innovation, Chiang Mai, Thailand. pp.272-279
4. Pongsak holimchayachotiluk, **Wimalin Laosiritaworn,** Raweeroj Jintawiwat., and Alonggot Limcharoen., 2007, Optimization of Gas metal Arc Welding Parameters for ST 37 Steel using Support vector Regression. Proceeding of Industrial Engineering Networks Conference 2007, Phuket.
5. Holimchayachotikul, P and **Laosiritaworn, W.,** 2007, Process Optimization and Modeling using Support Vector Regression for ST 37 Steel, Proceeding of the fifth International Conference on Quality and Reliability, Chiang Mai, Thailand.

6. Holimchayachotikul, P and **Laosiritaworn, W.,** 2009, Data Mining for CNC machine Adjustment Decision in Hard Disk Drive Arm Manufacturing: An Empirical Study, Advances in Intelligent and Soft Computing, Proceeding of the 6th International Conference on Digital Enterprise Technology, Hong Kong. pp. 459-467.
7. **Laosiritaworn, W** and Banjongjit, T., 2010, Visual Basic Application for Statistical Process Control: A Case of Metal Frame for Actuator Production Process, Proceeding of the International MultiConference of Engineers and Computer Scientists, Hong Kong. pp. 1878-1883.
8. **Laosiritaworn, W.S**. and Holimchayachotikul, P., 2010, Machine Scoring Model Using Data Mining Techniques, Proceeding of the International Conference on Data Mining and Knowledge Engineering, Rome, Italy.
9. Sittivangkul, S. and **Laosiritaworn, W.,** 2011, Logistics Costing in Vegetable Processing Industry Using Activity-Based Costing Approach, Proceeding of 3rd IEEE International Conference on Information Management and Engineering, Zhengzhou, China. pp. 439-443.
10. Punnarungsri, P. and **Laosiritaworn, W.,** 2012, Coil Baking Parameters Optimization using Taguchi Methodology, Proceeding of the 4th International Data Storage Technology Conference, Thailand, January 9-10, pp.284-289.
11. **Laosiritaworn, W.S.** and Aoonchan, P., 2012, Multi-Panel Lamination Process Optimization with Design of Experiment, Proceeding of World Congress on Engineering and Computer Science, San Francisco, USA, pp. 1383-1387.
12. **Laosiritaworn, W.S.,** 2012, Coil Baking Process Modeling with Neural Network, Proceeding of 2012 IEEE International Conference on Industrial Engineering and Engineering Management, Hong Kong, December 10-13, pp. 1656-1660.
13. Punnarungsri, P. and **Laosiritaworn, W**., 2013, Optimization of Coil Baking Parameters Using Design of Experiments, Lecture Notes in Engineering and Computer Science 2, Proceeding of the International MultiConference of Engineers and Computer Scientists, Vol II, Hong Kong, March 13-15, pp. 933-937.
14. **Laosiritaworn, W. S.,** Kasemset, C., Talar, C., and Poovilai, W., 2013, Application of Material Flow Cost Accounting Technique in Lost-Wax Casting Process, Proceeding of the 16th EMAN Conference on Material Flow Cost Accounting, Dresden, Germany, 20 - 22 March 2013, pp.80-83.
15. **Laosiritaworn, W**., Rangsee, P., Chanduen, P., Klanarong, P., 2015, Improving Lost-Wax Casting with Six Sigma Methodology, Proceedings of the AASRI International Conference on Applied Engineering Science, ICAES 2014, Los Angeles, USA, 23-24 July 2014, pp. 59-64.
16. Laosiritaworn, Y., **Laosiritaworn, W**., 2015, Optimizing Interface Area of Percolated Domains in Two Dimensional Binary Compound: Artificial Neural Network Modeling on Monte Carlo Experiments, Proceedings of the 23rd International Conference on Systems Engineering, ICSEng 2014; Las Vegas, NV; United States; 19 August - 21 August 2014, pp.193-198.
17. **Laosiritaworn, W**., 2015, Improving Multi-Panel Lamination Process Optimization using Response Surface Methodology and Neural Network, Proceedings of the 23rd International Conference on Systems Engineering, ICSEng 2014; Las Vegas, NV; United States; 19 August - 21 August 2014, pp.221-226.
18. **Laosiritaworn, W**. and Bhuapirom, A, 2016, Ceramics Process Improvement with Material Flow Cost Accounting, Proceedings of the 6th International Conference on Industrial Engineering and Operations Management, Kuala Lumpur, Malaysia, March 8-10, 2016.
19. Sangnuan, K., **Laosiritaworn, W.S.** 2016, Determining the Optimal Parameter of Coordinate Measuring Machine with Design of Experiment, Proceeding of the 3rd International Conference on Industrial Engineering and Applications.
20. **Laosiritaworn, W.,** Kitjongtawornkul, P., Pasui, M., and Wansom, W. 2016, Die storage improvement with k-means clustering algorithm: A case of paper packaging business, Proceeding of the 4th International Symposium on Computational and Business Intelligence, ISCBI 2016; Olten; Switzerland; 5-7 September 2016, pp. 212-215.
21. **Laosiritaworn, W**.S., Singtorn, N., Tapeng, P. 2016, Spare parts storage improvement with association rules, *Lecture Notes in Engineering and Computer Science*, pp.1023-1026.
22. Oodsing, P., and **Laosiritaworn, W**. 2017, Inventory Management in San Pa Tong Agriculture Cooperative Limited's Supermarket, Proceeding of the International Conference of Innovative Research in Science, Technology and Management, ICIRSTM 2017; Singapore; 16-17 September 2017, pp. 42.
23. Laosiritaworn, Y., Laosiritaworn, Y., and **Laosiritaworn, W.S.** 2017, Modelling Infectious Disease Spreading Dynamic via Magnetic Spin Distribution: The Stochastic Monte Carlo and Neural Network Analysis, *Journal of Physics: Conf. Series 901*.
24. Sukthomya, D., and **Laosiritaworn, W.** 2018, Modeling of the Relationship Between Corporate Social Responsibility and Stock Price with Artificial Neural Network, Proceeding of 7th International Conference on Industrial Technology and Management (ICITM 2018); Oxford UK; 7-9 March 2018, pp 213-217.

25. Wongwan, K., and **Laosiritaworn, W.** 2018, Application of Association Rules in Woven Wire Mesh Defects Analysis, Proceeding of 7th International Conference on Industrial Technology and Management (ICITM 2018); Oxford UK; 7-9 March 2018, pp 325-329
26. Laosiritaworn, Y., **Laosiritaworn, W.S., and** Laosiritaworn, Y. 2018, Monte Carlo, Design of Experiment, and Neural Network Modeling of Basic Reproduction Number in Disease Spreading System, Proceeding of 7th International Conference on Industrial Technology and Management (ICITM 2018); Oxford UK; 7-9 March 2018, pp 345-349
27. Wongwan, K., and **Laosiritaworn, W.** 2018, Security wire mesh weaving process modelling with artificial neural network, MATEC Web of Conference 5th International Conference on Mechanical, Materials and Manufacturing, (ICMMM 2018); Orlando United States; 13-15 October 2018, Vol. 249
28. **Wimalin Laosiritaworn** and Wichai Chattinnawat. 2019, Industry 4.0 Gap Analysis for Thai Industries with Association Rules mining, Proceedings of the International Conference on Industrial Engineering and Operations Management; Bangkok, Thailand; March 5-7 2019, pp 2737-2746

RESEARCH GRANT

2007-2008	The application of neural networks for manufacturing facility and supply chain modelling	Thailand Research Fund
2008-2009	Manufacturing process improvement for hard disk drive arm using data mining techniques	Industry/University Cooperative Research Center (I/U CRC) in HDD Component Khon Kaen University.
2009-2010	Artificial neural Network modeling of electrical properties of PZT ferroelectrics	Thailand Research Fund
2009-2010	Control chart pattern recognition for hard disk drive arm production	Industry/University Cooperative Research Center (I/U CRC) in HDD Component Khon Kaen University.
2010-2011	Logistics costing in vegetable processing industry using activity-based costing approach	Thailand Research Fund
2010-2011	Coil baking parameters Optimization Design of Experiments methodology	Industry/University Cooperative Research Center (I/U CRC) in HDD Component Khon Kaen University.
2014-2016	Improving Swage Hole Measurement with Coordinate Measuring Machine	Research and Researchers for Industries (RRI), Thailand Research Fund
2016-2019	Ph.D. Research and Researchers for Industries (RRI) Grant	Research and Researchers for Industries (RRI), Thailand Research Fund
2016-2019	The Royal Golden Jubilee Ph.D. Program Grant	Thailand Research Fund