

CURRICULUM VITAE

Assistant Professor Pairoj Khawsithiwong, Ph.D.

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ACADEMIC QUALIFICATIONS

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|-----------------------------|---|
| February 2001 - August 2006 | Doctor of Philosophy, Curtin University of Technology.
Thesis Title:
Statistical Process Monitoring and Control Techniques for Autocorrelated Processes. |
| May 1993 - November 1996 | Master of Science(Statistics), Chulalongkorn University.
Thesis Title:
A Comparison on the Power of the Test Statistics for Regression Coefficients of Heteroscedastic Linear Models. |
| June 1989 - October 1992 | Bachelor of Science(Statistics), Kasetsart University. |

ACADEMIC POSITION

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| June 2013 - Present | Assistant Professor, Department of Statistics. |
| November 1996 - June 2013 | Lecturer, Department of Statistics. |
| November 2022 - February 2023 | Assistance to the President for Academic Affairs and Education Quality Development, Silpakorn University. |
| April 2019 - November 2022 | Assistance to the President for Quality Assurance in Education, Silpakorn University. |
| June 2013 - June 2017 | Deputy Dean, Faculty of Science, Silpakorn University. |
| October 2010 - June 2013 | Department Head, Department of Statistics, Silpakorn University. |
| October 2006 - September 2010 | Associate Department Head, Department of Statistics, Silpakorn University. |
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TEACHING EXPERIENCES

- June 2023 **Silpakorn University**
515 221 Applied Regression Analysis.
515 241 Fundamental of Statistical Quality Control.
515 321 Regression Analysis.
515 323 Industrial Quality Management Systems.
522 322 Forecasting Techniques for Data Science.

RESEARCH ACTIVITIES

- February 2008 - June 2008 Adjunct research fellow, Department of Mathematics and Statistics, Curtin University of Technology in a program of Endeavour Research Fellowship Award.

RESEARCH INTERESTS

- Statistical Quality Control.
- Time Series Analysis: Multivariate time series; Adaptive and Robust filters.

JOURNAL ARTICLES

1. Yoksan, S. Chaiyo, K. Rajakam, S. Kerdkriangkrai, S. **Khawsithiwong, P.** and Rabablert, J. (2018) "Molecular Epidemiology of Dengue Viruses Isolated from Patients with Suspected Fever in Bangkok." *Asian Journal of Tropical Medicine and Public Health* 49(4), 604-616.
 2. **Khawsithiwong, P.** and Yatawara, N. (2016) "Robust Kalman Filtering with Generalized Laplace Observational Noises." *Veridian E-Journal, Science and Technology Silpakorn University* 3(6), 14-28.
 3. Pongsapukdee, V. **Khawsithiwong, P.** and Yamjaroenkit, M. (2016) "Test Statistics for Dispersion Parameter in Poisson Regression and Generalized Poisson Regression Models." *Silpakorn University Science and Technology Journal* 10(2), 31-36.
 4. Whanjai, A., Pongsapukdee, V., and **Khawsithiwong, P.** (2013) "Analysis of Factors Affecting Arsenic Contamination in Toenails Using Loglinear Models." *KKU Science Journal* 41(3), 744-755.
 5. Wattanasaruch, P., Pongsapukdee, V., and **Khawsithiwong, P.** (2012) "Least-MSE Calibration Procedures for Corrections of Measurement and Misclassification Errors in Generalized Linear Models." *Songklanakarin Journal of Science and Technology* 34(4), 467-474.
 6. **Khawsithiwong, P.** and Yatawara, N. (2011) "A Minimum Discrimination Information Control Chart for Stationary Autocorrelated Processes." *Sri Lankan Journal of Applied Statistics: Special Issue: International Statistics Conference 2011* 12, 161-174.
 7. **Khawsithiwong, P.**, Yatawara, N. and Pongsapukdee, V. (2011) "Adaptive Kalman Filtering with Multivariate Generalized Laplace Noise." *Communications in Statistics: Simulation and Computation* 40(9), 1278-1290.
 8. **Khawsithiwong, P.** and Yatawara, N. (2007) "Monitoring Process Variability with Individual Measurements from Elliptically Contoured Distributions." *Communications in Statistics: Simulation and Computation* 36(3), 699-718.
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CONFERENCE PROCEEDINGS

1. Saechin, A. Tragantalerngsak, S. and **Khawsithiwong P.** (2020) "Stock Trading Rules Based on *Dimbeta* Indicator." Operations Research Network 2020 Conference, Bangkok, Thailand.
2. **Khawsithiwong, P.** (2018) "Joint Monitoring Mean and Variability Using Adaptive Kalman Filter." International Conference on Applied Statistics 2018, Bangkok, Thailand.
3. **Khawsithiwong, P.** (2016) "Robust EWMA Based on State Space Approach." International Conference on Applied Statistics 2016, Phuket, Thailand.
4. Sangjan, J. and **Khawsithiwong, P.** (2015) "A Comparison on the Efficiency of the Spacing Based Entropy Estimators." The 20th Annual Meeting in Mathematics, Nakhon Pathom, Thailand.
5. Sangjan, J., Sommai, K., and **Khawsithiwong, P.** (2015) "Posterior Predictive Based Control Chart." The 8th Silpakorn University International Conference on Academic Research and Creative Art, Nakhon Pathom, Thailand.
6. Wattanasaruch, P., Pongsapukdee, V. and **Khawsithiwong, P.** (2010). "Logistic Calibration Technique for Measurement Error Correction in Generalized Linear Models." Statistics and Applied Statistics Conference 2010, Chiang Mai, Thailand.
7. **Khawsithiwong, P.** (2007) "A Choice of Smoothing Parameters for EWMAD Control Chart When a Process Mean Shifts." Statistics and Applied Statistics Conference 2007, Cha-um, Thailand.
8. **Khawsithiwong, P.** and Yatawara, N. (2006) "Residual Based MDI Control Chart." National Applied Statistics Conference 2006, Bangkok, Thailand.
9. **Khawsithiwong, P.** and Yatawara, N. (2006) "Robust Filter with Multivariate Generalized Laplace Measurement Noise." Statistics and Applied Statistics Conference 2006, Pattaya, Thailand.

CONFERENCE ABSTRACTS AND POSTER PRESENTATIONS

1. Yatawara, N. and **Khawsithiwong, P.** (2011) "An Information Control Chart for Stationary Autocorrelated Processes." The Statistical Concepts and Methods for the Modern World, Colombo, Sri Lanka.
 2. **Khawsithiwong, P.** and Yatawara, N. (2010) "Synergistic Control Using Robust Kalman Filter." The 10th Academic Meeting of Thailand Research Fund, Cha-um, Thailand.
 3. **Khawsithiwong, P.**, Yatawara, N. and Pongsapukdee, V. (2009) "Robust Filter with Multivariate Generalized Laplace System Noise." The 9th Academic Meeting of Thailand Research Fund, Cha-um, Thailand.
 4. Yatawara, N. and **Khawsithiwong, P.** (2007) "An Information Control Chart for Stationary Autocorrelated Processes." The 2007 ANZIAM Conference, Fremantle, Western Australia.
 5. Yatawara, N. and **Khawsithiwong, P.** (2005) "Monitoring Process Variability with Individual Measurements from Elliptically Contoured Distributions." ISBIS4 Conference, Plam Cove, Australia.
 6. **Khawsithiwong, P.** and Yatawara, N. (2004) "Forecast Based Control Chart with Minimum Discrimination Information." ASC 2004 Australian Statistical Conference, Cairns, Australia.
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7. Yatawara, N. and **Khawsithiwong, P.** (2001) "An Information Theoretic Approach to Test Homogeneity in a Beta-Gamma AR(1) Mixture Model." Recent Developments in Mixture Modelling Conference, Hamburg, Germany.

TECHNICAL REPORTS

1. **Khawsithiwong, P.** (2011) **Statistical Process Control System.** Department of Statistics, Faculty of Science, Silpakorn University. (Sponsored by Office of the Higher Education Commission and Thailand Research Fund.)
2. **Khawsithiwong, P.** (2010) **A Comparison on an Efficiency of Robust Forecasting Techniques for Multivariate Time Series in Presence of Outliers.** Department of Statistics, Faculty of Science, Silpakorn University. (Sponsored by Faculty of Science, Silpakorn University.)

MISCELLANEOUS

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|----------------|--|
| 2021 - Present | TQA Assessor, Thailand Productivity Institute |
| 2022 - Present | EdPEX Assessor, Office of the Permanent Secretary,
Ministry of Higher Education, Science, Research and Innovation |