Curriculum Vitae

รองศาสตราจารย์ ดร.มานัดถุ์ คำกอง

Assoc. Prof. Dr. Manad Khamkong

-Academic Program Chair of Doctor of Philosophy (Ph.D.) in Applied Statistics, Department of Statistics, Faculty of Sciences, Chiang Mai University, Thailand. 50200.

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-Associate Dean, International College of Digital Innovation (ICDI), Chiang Mai University.

Academic Positions:

2020 – Present Associate Professor in Statistics at Department of Statistics, Faculty of Sciences, Chiang Mai University, Thailand

2013 – 2020 Assistant Professor in Statistics at Department of Statistics, Faculty of Sciences, Chiang Mai University, Thailand

2005 – 2013 Instructor at Department of Statistics, Faculty of Sciences, Chiang Mai University, Thailand

Education:

Ph.D. in Statistics (2010), National Institute of Development Administration, Thailand.
Title of Dissertation: Asymptotic Tests for Poisson distribution.
Advisor: Associate Professor Dr. Pachitjanut Siripanich.

M.S. in Applied Statistics (2005), Chiang Mai University, Thailand.
Title of Thesis: Theoretical Concept of Negative Binomial Regression Analysis and Its Application.
Advisor: Associate Professor Dr. Chupensri Wongbuddha.

B.Sc. in Statistics (2002), Mahasarakham University, Thailand.

Major Research Interests:
Statistical Learning, Statistical Modeling and Environmental Statistics.

Research and Consulting Experience

Project	Research Grants	Period	Position
Using statistics for sustainable local development management in the North, Thailand	Academic service project for the community Project, Chiang Mai University	2014	Project Leader
Workforce Projection in Veterinary Profession in 2025	The Veterinary Practitioner Association of Thailand (VPAT)	2015	co-author
A study of the behavior of online customers, Forth Smart Service Public Co., Ltd.	Forth Smart Service Public Co., Ltd.,	2016	Project Leader
Project of hiring a consultant to collect data, analyze, and produce a monitoring and evaluation report and administration of NBTC.	Office of The National Broadcasting and Telecommunications Commission (NBTC), Thailand	2020 - 2021	co-author
International Research Network in Digital Image Processing and Machine Learning	International Research Network, The Thailand Research Fund.	2019 - 2022	co-author
Route 1 Innovation Economic Corridor	Office of National Higher Education Science Research and Innovation Policy Council, Thailand	1/2/2021-31/10/ 2021	co-author
Digital technology for tourism in the upper north of Thailand	PMU, Office of National Higher Education Science Research and Innovation Policy Council, Thailand	1/4/2021-31/3/2022	co-author

Book:

Manad Khamkong. 2018. **Probability with Application to Statistical Inference.** Chiang Mai University Press. (In Thai).

Selected Publications:

Yamsakul, P., Yano, T., Na Lampang, K., **Khamkong, M.** and Srikitjakarn, L. (2022). Infrared Temperature Sensor for Use Among Sow Herds: https://doi.org/10.12982/VIS.2023.005. Veterinary Integrative Sciences, 21(1), 49–59.

Chaito, T., Nakharutai, N., Suwan, S., Saenchan, S., and **Khamkong, M.** 2022. A mixture Weibull-Rayleigh distribution and its application. Songklanakarin Journal of Science and Technology. 44(3): 1131–1144.

Chongcharoen, S., Paksaranuwat, P. and **Khamkong, M.** 2022. One-sided multivariate tests for high-dimensional data from two populations with unknown and unequal covariance matrices. Songklanakarin Journal of Science and Technology. 44(1):142-148.

Chaito, T., Nanthaprutai, P., Nakharut, N. and **Khamkong, M.** 2022. The Length-Biased Gamma-Rayleigh Distribution with Applications. Thailand Statistician. 20(2): 293-307.

Chaito, T. and **Khamkong, M.** 2021. The Length-Biased Weibull Rayleigh Distribution for Application to Hydrological Data. Lobachevskii Journal of Mathematics. 42(13): 3253-3265.

Chaito, T., Nanthaprut, P. and **Khamkong, M.** 2021. Application of the Length-Biased Weibull-Rayleigh Distribution to Fit the Rainy Season Rainfall for the Upper Ping River in Northern Thailand. Journal of Applied Mathematics and Computational Intelligence. 10(1): 288-300.

Chaito, T. and **Khamkong, M.** 2021. Time Series Model for Standardized Precipitation Index in the Ping River Basin of Chiang Mai Province. The Journal of King Mongkut's University of Technology North Bangkok, 31(2): 332-345. TCI/tier1

Chaito, T. and **Khamkong, M.** 2020. Extreme Value Model for Monthly Rainfall in the Upper Ping River Basin of Chiang Mai Province. Journal of Applied Statistics and Information Technology, 5(2): 32-44. TCI/tier2

Liammukda, A., **Khamkong, M.,** Saenchan, S. and Napon Hongsakulvasu, N. 2020. The Time-Varying Coefficient Fama - French Five Factor Model: A Case Study in the Return of Japan Portfolios. Journal of Asian Finance, Economics and Business. 7(10): pp 513-521.

Kaewprasert, T. and **Khamkong, M.** 2020. An Alternative Estimator with Appropriate Plotting Position Estimates for the Generalized Exponential Distribution. Thailand Statistician. 18 (3): 333-339.

Pudprommarat, C. and **Khamkong, M.** 2020. Statistical Modeling to Fit Seasonal Rainfall Data from the Doisaket Rain Gauge Station in Thailand. Journal of Applied Statistics and Information Technology, 5(1): 1-9. TCI/tier2

Klunklin, P., Kimpakorn, N., Tansuhuj, S. P. and **Khamkong, M**. 2019; Customer perception on shared value and self-oriented value as mediators of the relationship between service experience and service bran equity. Srinakharinwirot Business Journal. Vol 10, No. 1, pp 59 – 79. TCI/tier1

Chaito, T., **Khamkong, M.** and Murnta, P. 2019. Appropriate Transformation Techniques to Determine a Modified Standardized Precipitation Index for the Ping River in Northern Thailand. EnvironmentAsia. 12(3): 32-42.

Chaito, T. and **Khamkong, M.** 2018. A Modified Box and Cox Power Transformation to Determine the Standardized Precipitation Index. Songklanakarin Journal of Science and Technology. 40(4): 867 – 877.

Boonyayatra, S., Kasemsuwan, S., Moonarmart, W., Urkasemsin, G., Yamsakul, P., Peansukmanee, S., Poolperm, P., Thitiyanaporn, C., Kamollerd, C., Chauchan, K., Jiwakanon, J., Sotthibandhu, P., Intarapuk, A., Chaichanasak, P., Mamom, T., Jamikorn, U., Sajjarengpong, K., Assavacheep, P., Tangsomchai, C., and **Khamkong, M.** 2018. Workforce Projection in Veterinary Profession in 2025. Journal of Health Systems Research. No.2 Vol. 12, 232-244.

Khamkong, M. 2018. Parameter Estimation Method for the Two Parameter Gamma Distribution Based on Transformation. International Journal of Applied Engineering Research No.2 Vol 13, 1261-1264.

Muangsuwan, V., **Khamkong, M.,** and Bookkamana, P. 2017. Parameter Estimation of the Generalized Pareto Distribution Based on a Plotting Position. Burapha Science Journal, No 22, Vol 3, 410 - 422 (In Thai).

Kaewprasert, T., **Khamkong, M.,** and Bookkamana, P. 2017. A Comparison of Data Transformation Methods of Generalized Exponential Distribution and Estimation of Summer Rainfall in Chiang Dao, Chiang Mai. Burapha Science Journal, No 22, Vol 3, 385 -396 (In Thai).

Khamkong, M., Bookkamana, P., Shin, Y., and Park, J. S. 2017. Modelling Extreme Rainfall in Northern Thailand with Estimated Missing Values. Chiang Mai Journal of Science. Vol. 44, No. 4. Pp. 1792 – 1804.

Muenta, P., **Khamkong, M.,** and Bookkamana, P. 2016. A Comparison of Goodness of Fit Test for Drought Analysis. Burapha Science Journal, No 21, Vol 3, 38 - 49 (In Thai).

Chaito, T., **Khamkong, M.,** and Bookkamana, P. 2016. Application of Transformation Techniques to Evaluate Drought. Burapha Science Journal, No 21, Vol 2, 86 -98 (In Thai).

Khamkong, M. and Bookkamana, P. 2015. Development of Statistical Models for Maximum Daily Rainfall in Upper Northern Region of Thailand. Chiang Mai Journal of Science. Vol. 42, No.4. pp.1044 – 1053.

Khamkong, M. and Siripanuch, P. 2015. Alternative Test for the Poisson Distribution. Chiang Mai Journal of Science. Vol. 42, No. 3. Pp. 774 – 782.

Monkong, N., **Khamkong. M.** and Bookkamana, P. 2014 The Remedy Multicollinearity Problems with a Ridge Logistic Regression Estimator by One-Step Bootstrapping. KKU Journal Graduate Studies. Vol. 14, No. 4, 44 – 56. (In Thai).

Nanthaprut, P., **Khamkong. M.** and Bookkamana, P. 2014. Test Statistic for the Risk Ratio in a Correlated 2x2 Table with Structural Zero in Small Sample Size. KKU Journal Graduate Studies. Vol. 14, No. 1, 1-11. (In Thai).

Nanthaprut, P., **Khamkong. M.** and Bookkamana, P. 2014. Improving of Test Statistic for the Risk Ratio in a Correlated 2x2 Table with Structural. J Sci Technol MSU. Vol. 33, No. 2. 137-140.

Khamkong, M. 2013. Some Remarks on the Model Comparison of Poisson Distribution and Discrete Related Distribution. Burapha Science Journal, No 18, Vol 1, 219-225. (In Thai).

Sriwichai, S and **Khamkong, M.** 2013. Improving the Confidence Intervals for Parameter Estimation of Poisson Distribution. Burapha Science Journal, No 18, Vol 1, 137-143 (In Thai).

Khongthip, P., **Khamkong, M.,** and Bookkamana, P. 2013. Modeling annual extreme precipitation in upper northern region of Thailand. Burapha Science Journal, No 18, Vol 1, 95-104 (In Thai).

Khamkong, M. 2012. Approximate Confidence Interval for the Mean of Poisson Distribution. Open Journal of Statistics, 2, 204-207. DOI: 10.4236/ojs.2012.22024

Rittisaeng, R., **Khamkong, M.** and Bookkamana, P. 2012. Estimation of hybrid logistic regression parameters using bootstrap method for case-control studies. Ramkhamhaeng Journal of Sciences and Technology, Vol. 29, No 2. pp. 1-19 (In Thai).

Khamkong, M. 2012. Regression Analysis of Count Data with Zero-inflation. Ramkhamhaeng Journal of Sciences and Technology, Vol. 29, No 1. pp. 65-79 (In Thai).

Ruangnamkit, S., Bookkamana, P. and **Khamkong, M.** 2010. Analysis of Electricity Consumption in Regions under Responsibility of the Northern Provincial Electricity Authority, *Academic Journal Phranakhon Rajabhat University*. Vol.2, No 1, pp 122-132 (In Thai).

Proceedings:

Prakhammin, K., Nakharutai, N. and **Khamkong, M.,** 2022. Travel time impact in multi-modal mode: a case study of the new railway line Ban Phai to Nakhon Phanom. The 2nd International Conference on Science Technology & Innovation-Maejo University (2nd ICSTI-MJU), 18 March 2022. Pp. 51-64.

Liammukda, A., **Khamkong, M.,** Saenchan, S. and Napon Hongsakulvasu, N. 2020. Panic of COVID-19 on the volatility of U.S. portfolios: Applied big data from Google trend. Proceedings of

the 1st International Conference on Big Data Analytics and Practices (IBDAP), 25-26 September 2020, Government Big Data Institute (GBDi), Digital Economy Promotion Agency, Ministry of Digital Economy and Society, Bangkok, Thailand. Pp. 98-102.

Chaito, T., and **Khamkong, M**. 2019. Performance Comparison of Methods in Estimating Zero-Inflated Weibull Parameters for Fitting Monthly Precipitation of Nan Region Thailand. Proceedings of the 15th IMT-GT International Conference on Mathematics, Statistics, and their Applications (ICMSA2017), 14 – 15 December 2019, IPB University, Bogor, Indonesia.

Jaithun, M. and **Khamkong, M.** 2017. Proceedings of the 13th IMT-GT International Conference on Mathematics, Statistics, and their Applications (ICMSA2017), 4 – 7 December 2017, Universiti UtaraMalaysia, Sintok, Kedah, Malaysia.

Jaithun, M., **Khamkong, M.** and Bookkamana, P. 2016. Zero – Inflated Gamma Distribution with Application to Rainfall Data of Yom River in Northern Thailand. Proceedings of International Conference on Applied Statistics 2016, 13 – 15 July 2016, Phuket, Thailand.

Khamkong. M. and Bookkamana, P. 2013. Approximate Confidence Interval for Risk Ratio in a correlated 2 x 2 Table with Structural Zero. Proceedings of the 18th Annual Meeting in Mathematics, Thaksin University.

Khamkong, M. 2012. Statistical Modeling of Annual Monthly Maximum Rainfall in Upper Northern Region of Thailand. Proceedings of the 6th International Days of Statistics and Economics, 13-15 September 2012, Prague, Czech Republic.

Khamkong, M. Comparing Models for Fitting Zero-inflated Data. Proceedings of the 6th IMT-GT International Conference on Mathematics, Statistics, and their Applications. 3-4 November 2010. Malaysia.

Khamkong, M. and Siripanich, P. Goodness of Fit Test for Poisson Distribution Based on Higher Moment. Proceedings of the 11th Conference on Statistics and Applied Statistics. 27-28 May, 2010.Thailand.

Khamkong, M. and Siripanich, P. Goodness of Fit for the Poisson Distribution Based on Sample Skewness. **In Proceeding of the 5th IMT-GT International Conference on Mathematics, Statistics, and their Applications**. 9-11 June 2009, Indonesia. 204-208.

Pudprommarat, C., **Khamkong, M.** and Bookkamana, P. Zero-inflated Poisson regression in road accidents on major road in the north of Thailand. **In Proceeding of the 1st IMT-GT Conference on Mathematics, Statistics and Their Applications**, 13-15 June 2005**,** Indonesia.

Khamkong, M., Pudprommarat, C., Jansakul, N. and Bookkamana, P. Application of Negative binomial Modeling in Road Accidents in Thailand. **In Proceeding of the Regional Conference on Ecological and Environmental Modeling (ECOMOD 2004)**, 15 - 16 September 2004, Malaysia.