



SUHAIMEE BUYA

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EDUCATION

Doctor of Philosophy (Knowledge Science)

School of Knowledge Science, Japan Advanced Institute of Science and Technology, Japan 2022 - 2025

Doctor of Philosophy (Engineering and Technology)

Sirindhorn International Institute of Technology, Thammasat University, Thailand 2021 - 2024

Master of Science (Research Methodology)

Faculty of Science and Technology, Prince of Songkla University, Thailand 2013 - 2017

Bachelor of Science (Applied Mathematics)

Faculty of Science and Technology, Prince of Songkla University, Thailand 2009 - 2013

EXPERTISE / AREAS OF RESEARCH INTEREST

- Applied Statistics
- Data Analytics
- Air pollution
- Environmental Science
- Environmental Health Related
- Remote Sensing
- Mathematical Statistics
- Big data analytics

WORKING & RESEARCH EXPERIENCE

Data scientist

Mind Over Data, Australia 2021

Data scientist

Faculty of Medicine, Prince of Songkla University, Thailand 2018-2021

Data scientist

Department of Mathematics and Computer Science, Prince of Songkla University, Thailand 2017-2018

Statisticians

PUBLICATIONS LIST

List of Publications in International Journals:

- Buya, S., & Gokon, H. (2025). Topographic transformations and coastal implications: assessing the impact of the 2024 Noto earthquake. *Coastal Engineering Journal*, 1–9.
<https://doi.org/10.1080/21664250.2025.2540718>
- Buya, S., Gokon, H., Huynh, V. N., Dam, H. C., Usanavasin, S., Karnjana, J., & Taneepanichskul, N. (2025). Spatiotemporal association between monthly PM_{2.5} levels and cardiorespiratory mortality in Thailand (2015–2019). *International Journal of Environmental Health Research*, 1-12. <http://dx.doi.org/10.1080/09603123.2025.2458726>
- Buya, S., Gokon, H., Dam, H. C., Usanavasin, S., & Karnjana, J. (2024). Estimating Ground-Level Hourly PM_{2.5} Concentrations in Thailand Using Satellite Data: A Log-Linear Model With Sum Contrast Analysis. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 17, 8203–8212. <https://doi.org/10.1109/JSTARS.2024.3384964>
- Buya, S., Usanavasin, S., Gokon, H., & Karnjana, J. (2023). An Estimation of Daily PM_{2.5} Concentration in Thailand Using Satellite Data at 1-Kilometer Resolution. *Sustainability*, 15(13). <https://doi.org/10.3390/su151310024>
- Buya, S., Lim, A., Saelim, R., Musikasuwan, S., Choosong, T., & Taneepanichskul, N. (2024). Impact of air pollution on cardiorespiratory morbidities in Southern Thailand. *Clinical Epidemiology and Global Health*, 25, 101501. <https://doi.org/10.1016/j.cegh.2023.101501>
- Buya, S., Chuangchang, P., & Owusu, B. A. (2022). Analysis of land surface temperature with land use and land cover and elevation from NASA MODIS satellite data: a case study of Bali, Indonesia. *Environmental Monitoring and Assessment*, 194(8), 566.
<https://doi.org/10.1007/s10661-022-10252-z>
- Buya, S., Tongkumchum, P., Rittiboon, K., & Chaimontree, S. (2022). Logistic Regression Model of Built-Up Land Based on Grid-Digitized Data Structure: A Case Study of Krabi, Thailand. *Journal of the Indian Society of Remote Sensing*, 50(5), 909-922.
<https://doi.org/10.1007/s12524-022-01503-0>
- Buya, S., Tongkumchum, P., & Owusu, B. E. (2020). Modelling of land-use change in Thailand using binary logistic regression and multinomial logistic regression. *Arabian journal of geosciences*, 13, 1-12. <https://doi.org/10.1007/s12517-020-05451-2>
- Munawar, M., McNeil, R., Jani, R., Buya, S., & Tarmizi, T. (2025). Variations in land surface temperature increase in South-East Asian Cities. *Environmental Monitoring and Assessment*, 197(2), 190. <http://dx.doi.org/10.1007/s10661-024-13604-z>

- Lim, A., Owusu, B. A., Thongrod, T., Khurram, H., Pongsiri, N., Ingviya, T., & Buya, S. (2024). Trend and Association Between Particulate Matters and Meteorological Factors: A Prospect for Prediction of PM_{2.5} in Southern Thailand. *Polish Journal of Environmental Studies*.
<https://doi.org/10.15244/pjoes/190787>
- Vichitkunakorn, P., Assanangkornchai, S., Thaikla, K., Buya, S., Rungruang, S., Talib, M., Duangpaen, W., Bunyanukul, W., & Sittisombut, M. (2024). Alcohol outlet density and adolescent drinking behaviors in Thailand, 2007–2017: A spatiotemporal mixed model analysis. *PLoS ONE*, 19(10). <https://doi.org/10.1371/journal.pone.0308184>
- Paoín, K., Pharino, C., Vathesatogkit, P., Phosri, A., Buya, S., Ueda, K., Seposo, X.T., Ingviya, T., Saranburut, K., Thongmung, N., & Yingchoncharoen, T. (2023). Associations between residential greenness and air pollution and the incident metabolic syndrome in a Thai worker cohort. *International Journal of Biometeorology*, 67(12), 1965-1974.
<https://doi.org/10.1007/s00484-023-02554-9>
- Munawar, M., Prasetya, T. A. E., McNeil, R., Jani, R., & Buya, S. (2023). Spatio and Temporal Analysis of Indonesia Land Surface Temperature Variation During 2001–2020. *Journal of the Indian Society of Remote Sensing*. <https://doi.org/10.1007/s12524-023-01713-0>
- Paoín, K., Pharino, C., Vathesatogkit, P., Buya, S., Saranburut, K., Phosri, A., Ueda, K., Seposo, X. T., Ingviya, T., Kitiyakara, T., Thongmung, N., & Sritara, P. (2023). Long-term associations of air pollution exposure with liver enzymes among adult employees of the Electricity Generating Authority of Thailand: A longitudinal cohort study. *Atmospheric Environment*, 299.
<https://doi.org/10.1016/j.atmosenv.2023.119648>
- Paoín, K., Pharino, C., Vathesatogkit, P., Phosri, A., Buya, S., Saranburut, K., Ueda, K., Seposo, X. T., Ingviya, T., Kitiyakara, C., Thongmung, N., & Sritara, P. (2023). Residential greenness and kidney function: A cohort study of Thai employees. *Health and Place*, 80.
<https://doi.org/10.1016/j.healthplace.2023.102993>
- Geater, S. L., Chaniad, P., Trakunram, K., Keeratichananont, W., Buya, S., Thongsuksai, P., & Raungrut, P. (2022). Diagnostic and prognostic value of serum miR-145 and vascular endothelial growth factor in non-small cell lung cancer. *Oncology Letters*, 23(1), 1-11.
<https://doi.org/10.3892/ol.2021.13130>
- Paoín, K., Ueda, K., Vathesatogkit, P., Ingviya, T., Buya, S., Dejchanchaiwong, R., Phosri, A., Seposo, X.T., Kitiyakara, C., Thongmung, N., Honda, A., Takano, H., Sritara, P., & Tekasakul, P. (2022). Long-term air pollution exposure and decreased kidney function: A longitudinal cohort study in Bangkok Metropolitan Region, Thailand from 2002 to 2012. *Chemosphere*, 287, 132117.
<https://doi.org/10.1016/j.chemosphere.2021.132117>

- Paoin, K., Ueda, K., Ingviya, T., Buya, S., Phosri, A., Seposo, X.T., Seubsman, S.A., Kelly, M., Sleigh, A., Honda, A., & Takano, H. (2021). Long-term air pollution exposure and self-reported morbidity: A longitudinal analysis from the Thai cohort study (TCS). *Environmental Research*, 192, 110330. <https://doi.org/10.1016/j.envres.2020.110330>
- Paoin, K., Ueda, K., Vathesatogkit, P., Ingviya, T., Buya, S., Phosri, A., Seposo, X.T., Thongmung, N., Yingchoncharoen, T., Honda, A., Takano, H., & Sritara, P. (2021). Long-term air pollution exposure and serum lipids and blood sugar: A longitudinal cohort study from the electricity generating authority of Thailand study. *Atmospheric Environment*, 259, 118515. <https://doi.org/10.1016/j.atmosenv.2021.118515>
- Paoin, K., Ueda, K., Vathesatogkit, P., Ingviya, T., Buya, S., Phosri, A., Seposo, X.T., Thongmung, N., Yingchoncharoen, T., Honda, A., Takano, H., & Sritara, P. (2021). Effects of long-term air pollution exposure on ankle-brachial index and cardio-ankle vascular index: A longitudinal cohort study using data from the Electricity Generating Authority of Thailand study. *International Journal of Hygiene and Environmental Health*, 236, 113790. <https://doi.org/10.1016/j.ijheh.2021.113790>
- Trakunram, K., Chaniad, P., Geater, S.L., Keeratichananont, W., Chittithavorn, V., Uttayamakul, S., Buya, S., Raungrut, P., & Thongsuksai, P. (2020). Serum miR-339-3p as a potential diagnostic marker for non-small cell lung cancer. *Cancer Biology & Medicine*, 17(3), 652. <https://doi.org/10.20892%2Fj.issn.2095-3941.2020.0063>

List of Publications in International Conferences:

- Buya, S., Gokon, H., Usanavasin, S., & Karnjana, J. (2025, August). Evaluating MODIS and VIIRS Satellite AOD for Ground-Level PM_{2.5} Estimation in Thailand. In *IGARSS 2025 - 2025 IEEE International Geoscience and Remote Sensing Symposium* (pp. 5929–5933). IEEE. Brisbane, Australia, 3-8 August 2025. doi: 10.1109/IGARSS55030.2025.11243558.
- Buya, S., Usanavasin, S., Hideomi, G., & Karnjana, J. (2023, July). The Association of Satellite Data with PM 2.5 Data from Ground Monitoring Stations in Thailand. In *IGARSS 2023-2023 IEEE International Geoscience and Remote Sensing Symposium* (pp. 1533-1536). IEEE. Pasadena, CA, USA, 16 – 21 July 2023. <https://doi.org/10.1109/IGARSS52108.2023.10282670>
- Paoin, K., Pharino, C., Vathesatogkit, P., Phosri, A., Buya, S., Ueda, K., Seposo, X. T., Ingviya, T., Saranburut, K., & Thongmung, N. (2023, March). Long-Term Associations between Greenness and Air Pollution with Risk Factors for Cardiovascular Disease: A Cohort Study. In *the 8th World Congress on Civil, Structural, and Environmental Engineering (CSEE'23) Conference. Paper No. ICEPTP 146*. March 29 – 31, 2023, in Lisbon, Portugal –. <http://dx.doi.org/10.11159/iceptp23.146>

AWARDS AND HONORS

- Exchange master degree student for two semesters. Supported by Erasmus Mundus Mobility with Asia (EMMA) scholarship. Advanced computing systems, Faculty of Engineering, Lucian Blaga University, Sibiu, Romania.
- Doctoral Dual Degree Program (SIIT-JAIST) scholarship.