Department of Sanitary Engineering

รองศาสตราจารย์ ดร.สุพพัต ควรพงษากุล

Assoc.Prof.Suphaphat Kwonpongsagoon, Ph.D.

Position: Associate Professor

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Education

Ph.D. (Civil & Environmental Engineering), University of New South Wales, Australia
M.Eng.Sc. (Waste Management), University of New South Wales, Australia
B.Sc. (Public Health), 1st Class honours, Mahidol University, Thailand

Expertise

Material flow analysis (MFA)/Substance flow analysis (SFA)
Life cycle assessment (LCA), Carbon footprint analysis
Health risk assessment (HRA)
Environmental management
Sustainable development indicators
Waste management
Nutrients management

Selected Publications

Kriangsak Riewlang, Chongchin Polprasert, Kamonwat Nakason, Supawadee Polprasert, **Suphaphat Kwonpongsagoon**, Suwisa Mahasandana [co] Bunyarit Panyapinyopol (2023) Enhancing chemical phosphorus precipitation from tapioca starch anaerobic digestion effluent in a modified pilot-scale fluidized bed reactor Environmental Research Volume 231, Part 3, 15 August 2023, 116277.

Chandeng L, Saphongxay K, Lertworasirikul A, Tuakta C, **Kwonpongsagoon S**, and Jonprateep, O (2023) Using Biowastes and Nonmetallic Fraction from Printed Circuit Board Waste to Fabricate Ecofriendly Lightweight Cement Blocks. J. Mater. Civ. Eng., 35(1): 04022371

Selected Publications

Boonkhao L, Phonkaew S, **Kwonpongsagoon S**, and Rattanachaikunsopon P (2022) Carbofuran residues in soil and consumption risks among farmers growing vegetables in Ubon Ratchathani Province, Thailand. AIMS Environ. Sci., 9(5): 593-602

Kingphadung, K, Kurdkaew, P, Siriwongwilaichat, P, and **Kwonpongsagoon, S** (2022). Comparison of Performance and Economic Efficiency for Greenhouse Solar versus Hot Air Drying: A Case of Crispy Mango Production. Processes, 10(2), 311. https://doi.org/10.3390/pr10020311

Wanwong S, **Kwonpongsagoon S**, and Kingphadung K (2021) Evaluating resource efficiency for printed circuit board waste sorting and transfer plant using material flow cost accounting. International Journal of GEOMATE, Vol.21(88): pp 105-112

Kingphadung K, and **Kwonpongsagoon S** (2021) Application of material flow cost accounting for waste reduction in dried mango production. UBU Engineering Journal, Vol. 14(2): pp 74- 86

Pianchainyaphum S, **Kwonpongsagoon S**, Kanchanapiya P, and Tuakta C; (2021) Recycling of non-metallic residue from waste printed circuit boards to produce interlocking concrete blocks. *IJESD*, Vol. 12(6): pp 169-174 doi: 10.18178/ijesd.2021.12.6.1336

Kwonpongsagoon S, Katasila C, Kongtip P and Woskie S; (2021) Application Intensity and Spatial Distribution of Three Major Herbicides from Agricultural and Nonagricultural Practices in the Central Plain of Thailand. Journal Int. J. Environ. Res. Public Health 2021, 18(6), 3046; https://doi.org/10.3390/ijerph18063046

Ratchadaariyachat S and **Kwonpongsagoon S** (2020) Development of a web application for estimating CO_2-equivalent emissions of poultry and swine slaughtering processes. International Journal of GEOMATE, Vol. 18(68): pp 149-155.

Srikritsanarat A and **Kwonpongsagoon S** (2020) Web application support for carbon footprint management of petrol stations in Thailand. International Journal of GEOMATE, Vol. 18(68): pp 142-148.

Krungkaew S, Kingphadung K, **Kwonpongsagoon S**, and Mahayothee B (2020) Costs and benefits of using parabolic greenhouse solar dryers for dried herb products in Thailand. International Journal of GEOMATE, Vol. 18(67): pp 96-101.

Katasila C, **Kwonpongsagoon S**, Kongtip P, and Woskie, S (2018) Environmental Contamination Implication of 2,4-D Herbicide Use Patterns for Economic Crops in Nakhon Sawan Province, Thailand, 2018 International Conference on Engineering, Technology and Applied Science (ICETA-Summer 2018), Sapporo, Hokkaido, Japan, August 17-19, 2018.

Kanchanapiya P, Jareemit S, and **Kwonpongsagoon S** (2017) A new composite made from non-metallic waste printed circuit boards: table top product as a practical prototype, International Journal of GEOMATE, Vol 13(40): 1-8.

Selected Publications

Kwonpongsagoon S, Jareemit S, and Kanchanapiya P (2017) Environmental Impacts of Recycled Nonmetallic Fraction from Waste Printed Circuit Board, International Journal of GEOMATE, Vol 12(34): 8-14.

Wongsoonthornchai M, Scheidegger R, **Kwonpongsagoon S**, and Bader, H-P (2017) Analysis of Time-dependent mercury flows through the Use of Thermometers and Sphygmomanometers, International Journal of GEOMATE, Vol 12(33): 65-70.

Tesanan S, **Kwonpongsagoon S**, and Kanchanapiya P (2016) Solidification/Stabilization of Nonvaluable Residue from Waste Printed Circuit Board Assembly, International Journal of GEOMATE, Vol 11(24): 2307-13.

Wongsoonthornchai M, **Kwonpongsagoon S**, and Scheidegger R (2016) Assessment of Mercury Flows through Fluorescent Lamps and Potential Reduction Scenarios in Thailand, International Journal of Environmental Science and Development, Vol 7 (5): pp 340-345.

Wongsoonthornchai M, **Kwonpongsagoon S**, and Scheidegger R (2016) Modeling mercury flows in Thailand on the basis of mathematical material flow analysis, CLEAN: Soil, Air, Water, Vol 44(1): 16-24.DOI: 10.1002/clen.201400670

Kanchanapiya P, Pinyo W, Jareemit S, and **Kwonpongsagoon S** (2015) The recycling of non-metallic powder from printed circuit board waste as filler material in fiber reinforced polymer, **Environment Protection Engineering**, Vol 41(4), pp 151-166.DOI 10.5277/epe150412

Kupkanchanakul W, **Kwonpongsagoon S,** Bader H-P, and Scheidegger R (2015) Integrating spatial land use analysis and mathematical material flow analysis for nutrient management: a case study of the Bang Pakong river Basin in Thailand, Environmental Management, Vol 55: pp 1022-1035.

Wongsoonthornchai M, **Kwonpongsagoon S** (2014) Estimating mercury flow though thermometers and sphygmomanometers in healthcare facilities in Thailand on the basis of a material flow analysis, Adv Mat Res, Vol 931-932: pp 629-634.

Kupkanchanakul W, and **Kwonpongsagoon S** (2011) Nitrogen and phosphorus flow analysis from pig farming in Bang Pakong Basin, eastern Thailand, EnvironmentAsia, Vol. 4(2), pp 27 – 32

Kwonpongsagoon, S. (2010) Substance Flow Analysis (SFA) for sustainable environmental management, *Thai Environmental Engineering Magazine*, Vol. 7(1), pp 24 – 27 (in Thai).