

THANAKRIT NEAMHOM, Ph.D.

Assistance Professor, Department of Environmental Health Sciences,
Faculty of Public Health, Mahidol University, Bangkok, THAILAND 10400
Tel: +66(0) 86 384 4645, E-mail: Thanakrit.nea@mahidol.ac.th, Nt.thanakrit@gmail.com

Work Experience

October 2021 – Present

Assistance Professor Department of Environmental Health Sciences
Faculty of Public Health, Mahidol University

May 2017 – October 2021

Lecturer Department of Environmental Health Sciences
Faculty of Public Health, Mahidol University

October 2021 – July 2025

Deputy Dean for Student Affairs and Sustainable Development
Faculty of Public Health, Mahidol University

October 2019 – September 2021

Assistant Dean for Student Affairs
Faculty of Public Health, Mahidol University

Education

2013 – 2016

PhD. (Environmental Technology) – Mahidol University, Thailand

Thesis: *Evaluation of Renewable Energy Potentials from Sugarcane and Tapioca Productions Based on a Carbon-Balanced Model: A Case Study in Thailand*

Advisor: Prof. Chongchin Polprasert, Ph.D.

2009 – 2012

B.Sc. in Public Health (Second Class Honors), Majoring in Environmental Health Science – Mahidol University, Thailand

Scholarship

2013 – 2016 **Energy Conservation Promotion Fund Scholarship**

Granted by the Office of Energy Policy and Planning, Ministry of Energy, Thailand

Course Taught

- **M.Sc. (Environmental Health)**
 - Advance Sanitation for Water Supply and Ice (PHEH682)
- **M.PH.**
 - Environmental Health and Occupational Health (PHID604)
 - Balancing Health and Environment in Sustainable Development (PHID755)
- **B.Sc. (Environmental Health)**
 - Sanitation for Drinking Water, Water Supply, and Ice (PHEH 327)
 - Industrial Noise and Vibration (PHEH 303)
 - Soil Pollution and Remediation (PHEH 448)
- **B.Sc. (Public Health)**
 - Industrial Sanitation and Safety (PHEH 422)
 - Soil Pollution Control (PHEH 435)

Research Interests

- Environmental Health Management
- Water Treatments and Unit Operations
- Carbon and Ecological Footprints
- Workplace Sustainable Developments
- Waste and Nutrient Recovery and Utilizations
- Indoor Air Quality Assessment and Monitoring

Awards

- Public Health's Teaching Awards 2025, Mahidol University Faculty of Public Health
- Outstanding University Staff of Mahidol University for the year 2023, in the Academic Staff category, recognizing continuous service for up to 10 years
- Best Young Investigator Poster Award for the poster entitled: "Optimum plantation area of Thai tapioca industry for food versus fuel productions based on sustainable development approach" in the 2017 Kyoto Global Conference for Rising Public Health Researchers "Interdisciplinary Approach and Collaboration for Health for All", December 6-7, 2017, Yamauchi Hall, Shiran Kaikan, Kyoto University

Trainings

- Carbon Footprint for Organization, TGO, Thailand
- Organizational Carbon for Footprint Verification, TGO, Thailand
- MU EdPEX Assessor, Mahidol University, Thailand
- Training of Trainer on Global Health Workshop, IHPP, Thailand

Selected Journal Articles

- Noodaeng S, Petchmedyai P, Janthasen A, Ponthip A, **Neamhom T**, Patthanaissaranukool W. (2025). Comparative carbon footprint analysis of semi-digital and fully digital implant-supported prosthesis fabrication processes. *Environmental Challenges* 20, 101294. doi.org/10.1016/j.envc.2025.101294.
- Kittigul L, Rupprom K, Thongpanich Y, **Neamhom T**, Utrarachkij F. (2025). Quantification and Genotyping of Norovirus in Aerosols from Wastewater Treatment Plants in Thailand. *Food and Environmental Virology* 23;17(2):31. doi: 10.1007/s12560-025-09647-1.
- Pinatha Y, Rongchapo W, **Neamhom T**, Pentamwa P. (2025). Product characterization, application, and techno-economic aspects of phosphorus recovery as struvite from swine wastewater: A case of small-scale swine farm. *Science of The Total Environment* 982, 20 June 2025, 179685. doi.org/10.1016/j.scitotenv.2025.179685
- **Neamhom T**, Yakam P, Bathbumrung C, Tachavarong W, Kosaisavee V, Pinatha Y. (2025). Pilot-scale phosphorus recovery from mobile toilet wastewater in Bangkok, Thailand. *Scientific Reports* 15, 3477 (2025). doi.org/10.1038/s41598-025-87520-8
- **Neamhom T**, Phosat C, Chumprasittichok T. (2025). Association of Online Learning Tools and Students' Health: A Case Study During the COVID-19 Pandemic. *Journal of Health Science and Medical Research* 43(1):e20241066. doi: 10.31584/jhsmr.20241066
- **Neamhom T**, Chumprasittichok T. (2024). Impacts of Online Learning Class During the COVID-19 Pandemic on Student Performance and Their Mental Health Status. *Journal of Health Management*. 26(1): 164-171. doi:10.1177/09720634231225017

- Moungsree S, **Neamhom T**, Polprasert S, Suwannahong K, Polprasert C, Patthanaissaranukool W. (2024). Greenhouse gas emissions and carbon footprint of maize-based feed products for animal farming in Thailand. *Environmental Science and Pollution Research* 31: 2657–2670. doi.org/10.1007/s11356-023-31408-5
- Moungsree S., **Neamhom T.**, Polprasert S., Withida P. (2023) Carbon footprint and life cycle costing of maize production in Thailand with temporal and geographical resolutions. *The International Journal of Life Cycle Assessment* 28: 891–906. doi.org/10.1007/s11367-022-02021-4
- Patthanaissaranukool W., Polprasert S., **Neamhom T.** (2023). Carbon smart agriculture: lower carbon emissions and higher economic benefits of maize production in Thailand. *International Journal of Environmental Science and Technology*, 20(6): 6003-6014.
- Chanthorn N., Petchrat T., Pongtanapaisan T., Thongmai S., **Neamhom T.** (2023). Adsorption of PM2.5 emissions from laser printer by paper waste aerogel. *Asia-Pacific Journal of Science and Technology*, 28(02): Article ID.: APST-28-02-15.
- Rotjanabumrung M., Phosri A., Sihabut T., **Neamhom T.** (2023). Short-term effects of biomass open burning related air pollution on outpatient department visits for cardiovascular and respiratory diseases in Thailand. *Stoch Environ Res Risk Assess* 37, 2885–2895 (2023). <https://doi.org/10.1007/s00477-023-02424-1>
- Chanthorn N., Petchrat T., Pongtanapaisan T., Thongmai S., **Neamhom T.** (2022). Adsorption potential for PM2.5 and TVOC from printing job using wastepaper and rice husk. *Songklanakarin Journal of Science and Technology*, 44(3): 826-835.
- Patthanaissaranukool W., Polprasert S., **Neamhom T.** (2022). Carbon smart agriculture: lower carbon emissions and higher economic benefits of maize production in Thailand. *International Journal of Environmental Science and Technology*. DOI: 10.1007/s13762-022-04355-w.
- Yongsri A., **Neamhom T.**, Polprasert S., Singhakant C., Patthanaissaranukool W. (2022). Phosphorus flow analysis in maize cultivation: a case study in Thailand. *Environmental Science and Pollution Research*, 29(39): 59835-45.
- Yupin K., **Neamhom T.**, Singhkant C., Sreesai S., Polprasert S. (2022). Color Removal of Pulp and Paper Mill Wastewater Using Residual Eucalyptus Wood. *Environment and Natural Resources Journal*, 20(4): 419-25.
- Theeraphairoj P., Chommueang B., **Neamhom T.** (2021). Sanitation practice on dengue fever prevention and its related factors in urban community of Phitsanulok province. *Disease Control Journal*, 47(2): 1319-1329. (In Thai)
- Sikiwat W., Thonghom W., Kwangsopa S., **Neamhom T.**, Patthanaissaranukool W. (2021). Carbon Footprint of Faculty of Public Health, Mahidol University, Phayathai Campus. *Thai Science and Technology Journal*, 29(4): 604-617. (In Thai)
- Thongmai S., **Neamhom T.**, Patthanaissaranukool W., Polprasert S. (2021). Energy Use and Consumption Patterns of Maize Cultivation - A Case Study in Thailand. *Environment and Natural Resources Journal*, 19(6): 435-448.
- Thongchom T., On-si N., Puongphan C., Chumprasittichok T., **Neamhom T.** (2021). Health Risks from Indoor PM10 and Effects of Sick Building Syndrome in Office Workers. *Thai Journal of Public Health*, 51(2): 170-180.
- **Neamhom T**, Patthanaissaranukool W, Pinatha Y, Chommuang B. (2021). Health Risk and Predictive Equation for PM_{2.5} using TSP and PM₁₀ Variables in Office Buildings. *Songklanakarin Journal of Science and Technology*, 43(3): 834-839.4
- **Neamhom T.** (2019) Use of Agricultural Residues to Remove Iron from Groundwater in Modified Airlift Aerator. *Environmental and Natural Resources Journal*, 17(3), 58-67.

- **Neamhom T**, Andrew Jr. Englande, Polprasert C. (2016). Ways that Sugarcane Industry Can Help Reduce Carbon Emissions in Thailand. *Journal of Cleaner production*, 131, 561-571.
- **Neamhom T**, Patthanaissaranukool W, Polprasert C. (2016) Evaluation of Carbon Equivalences in Ethanol Production from Energy Crops in Thailand. *GMSARN International Journal*, 10, 95-101.

Selected Proceeding Papers

- Wichanuchit N, **Neamhom T**, Patthanaissaranukool W, Jaikanlaya C. (2025). The Evaluation of Greenhouse Gas Emissions in Primary Coffee Cultivation and Primary Processing. The Conferences of Center of Excellence on Environmental Health and Toxicology (EHT), the conferences on “Highlighting Environmental Health Issues: Research towards Solutions” on September 20, 2025. Convention center, Chulabhorn Research Institute, Bangkok, Thailand: 37 – 42.
- Jaikla K, **Neamhom T**, Jaikanlaya C, Patthanaissaranukool W. (2025). Health Risk Assessment of Nickel and Chromium Containing Particles in Arc Welding Factory. The Conferences of Center of Excellence on Environmental Health and Toxicology (EHT), the conferences on “Highlighting Environmental Health Issues: Research towards Solutions” on September 20, 2025. Convention center, Chulabhorn Research Institute, Bangkok, Thailand: 84 – 88.
- Pakasinee Y, **Thanakrit N**, Supawadee P, Withida P, and Chaowalit W. (2023). A Pilot Process for Struvite Phosphate Recovery from Mobile Toilet Wastewater by a Single Precipitation Process. The Conferences of Center of Excellence on Environmental Health and Toxicology (EHT), the conferences on “Trends in Environmental Health” on November 25, 2023. Convention center, Chulabhorn Research Institute, Bangkok, Thailand: 107 – 111.
- Chalermkiet B, **Thanakrit N**, Withida P, Supawadee P, and Chaowalit W. Phosphorus pellets formation from mobile toilet wastewater struvite and sugarcane industrial wastes. The Conferences of Center of Excellence on Environmental Health and Toxicology (EHT), the conferences on “Trends in Environmental Health” on November 25, 2023. Convention center, Chulabhorn Research Institute, Bangkok, Thailand: 84 – 89.
- Chareonwimonruk N, Patthanaissaranukool W, **Neamhom T**, Polprasert S. Carbon Footprint in the Faculty of Public Health, Mahidol University During Lockdown and Non-Lockdown Periods. The Proceedings of the 4th Environment and Natural Resource International Conference (ENRIC 2021) Challenges, Innovations and Transformations for Environmental Sustainability Virtual Conference; 2021 December 16th, Thailand: 200 – 208.
- Yupin K, **Neamhom T**, Singhakant C, Sreesai S, Polprasert S. Color Removal of Pulp and Paper Mill Wastewater by the Residual Eucalyptus Wood. The Proceedings of the 4th Environment and Natural Resource International Conference (ENRIC 2021) Challenges, Innovations and Transformations for Environmental Sustainability Virtual Conference; 2021 December 16th, Thailand: 107 – 114.
- Yongsri A, Patthanaissaranukool W, Polprasert S, **Neamhom T**, Singhakant S. Phosphorus Flow in Maize Cultivation in Dry Season of Thailand. The Proceedings of the 7th TNI Academic Conference; 2021 May 20 – 21; Bangkok, Thailand: 369 – 374.
- Thongmai S, **Neamhom T**, Patthanaissaranukool W, Polprasert S, Jaikanlaya C. Energy and cost analysis in different maize cultivation practices in Thailand. The Proceedings of the 7th TNI Academic Conference; 2021 May 20 – 21; Bangkok, Thailand: 375 – 380.5

- Kokaew S, Jaikanlaya C, Phosri A, **Neamhom T**. Assessment of the levels of heavy metals contaminated in particulate matter with a diameter of less than 10 microns (PM10) from electronic waste dismantling workers in Khueang Nai district, Ubon Ratchathani province. The Proceedings of the 20th National Environmental Conference; 2021 May 12 – 13; Khon Kaen, Thailand: 207 – 213.
- **Neamhom T**, Polprasert C. Emission reduction potentials from Thai primary rubber processing factories. The Proceedings of the 2nd Conference on Two Faces of Chemicals; 2018 November 17; Bangkok, Thailand: 6-11.
- Eangieam S, **Neamhom T**, Thitanuwat B, Polprasert C. Evaluation of phosphorus deposits in estuaries in the inner gulf of Thailand. The Proceedings of the 22nd Conference on Environmental Health and Toxicology; 2016 November 17; Bangkok, Thailand: 79-83.
- **Neamhom T**, Polprasert C. Energy and Carbon Balances in Sugarcane Industry in Thailand, the 5th proceeding of the 3rd EnvironmentAsia International Conference on 'Towards International Collaboration for an Environmentally Sustainable World.' Bangkok, Thailand, 17-19 June 2015.

Academic Research Projects and Responsibilities

- Assessment of Carbon Footprint for Organization in Faculty Level of Mahidol University; *Financially supported by Mahidol University* (Principal investigator): 2026
- Project for the Collection, Analysis, and Processing of Data on Local Government Organizations Advancing the Environmental Health – Sustainable Development Goals (SDGs); *Financially supported by Department of Health, Ministry of Public Health* (Principal investigator): 2026
- Trash Tags and Easy Bins for sustainable ecosystem; *Financially supported by Change Agent Project Funding, Mahidol University* (Co-investigator): 2025
- Development of Sustainable Healthy Canteen Model for Public Health Excellence; *Financially supported by Living Lab Project Funding, Mahidol University* (Principal investigator): 2025
- Assessment of Carbon Footprint for Organization in Faculty Level of Mahidol University; *Financially supported by Mahidol University* (Principal investigator): 2025
- Greenhouse Gas Emissions Report from the Activities of the Division of Physical and Environmental Affairs; *Financially supported by Mahidol University* (Principal investigator): 2025
- Reducing Greenhouse Gas Emissions in Coffee Cultivation and Primary Processing: A Case Study of Nan Province, Thailand; *Financially supported by Faculty of Public Health, Mahidol University* (Principal investigator): 2024
- Reducing greenhouse gas emissions in durian plantation of Thailand; *Financially supported by Agricultural Research Development Agency (Public Organization)* (Co-investigator): 2023
- Struvite-phosphate fertilizer production from public toilet urinal wastewater; *Financially supported by Office of the Permanent Secretary for Higher Education, Science, Research, and Innovation* (Principal investigator): 2020
- Reducing carbon emissions and phosphorus loss in the production of maize for the animal feed industry in Thailand; *Financially supported by Agricultural Research Development Agency (Public Organization)* (Co-investigator): 2020

- Standard and effectiveness of nuisance management practice in the Local government organization in Thailand; *Financially supported by Department of Health, Ministry of Public Health* (Co-investigator): 2020
- Development of Environmental Health Indicator for Healthy Community; *Financially supported by Department of Health, Ministry of Public Health* (Co-investigator): 2019
- Development of Environmental Health Innovations for Healthy Community; *Financially supported by Department of Health, Ministry of Public Health* (Co-investigator): 2019
- Removal of ferrous ion in groundwater using bio-agricultural wastes as an attached filter; *Financially supported by Mahidol University* (Principal investigator): 2018