



CHEERAWIT RATTANAPAN

จิระวิทย์ รัตนพันธุ์

Phone: 662 411 9040-3 Ext. 62
Email: cheerawit.rat@mahidol.edu

PROFESSIONAL APPOINTMENT

Associate Professor ASEAN Institute for Health Development, Mahidol University (Thailand)	Present
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ADMINISTRATIVE APPOINTMENT

Deputy Director for Research and Academic Affairs ASEAN Institute for Health Development, Mahidol University (Thailand)	2024 - Present
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EDUCATION

Post-doctoral Research (Sustainable development) Vienna University of Economics and Business	2014
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Research Fellowship (Microbial community) Leibniz-Institut für Agrartechnik Potsdam-Bornim e. V. (ATB)	2013
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Ph.D. (Biotechnology) Prince of Songkla University, Thailand	2005 - 2009
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M.Sc. (Environmental Management) Prince of Songkla University, Thailand	2003 - 2005
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B.Sc. in Education (General Science) Prince of Songkla University, Thailand	1999 - 2003
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EXPERTISE / AREAS OF RESEARCH INTEREST

- Environmental Management
- Environmental Health
- Environmental Biotechnology
- Sustainable Development
- Occupational Health
- One Health

WORK AND RESEARCH EXPERIENCE

Program Director of Ph.D in Health and Sustainable Development

ASEAN Institute for Health Development, Mahidol University (Thailand)

Editor-in-Chief

Journal of Public Health and Development

Editor Board

Songklanakarin Journal of Science and Technology

Guest Editor

Journal of Public Health Research

PUBLICATIONS LIST

- **Rattanapan C**, Arrykul S, Chevakiadagarn P. Dephosphorization of Wastewater by Fly Ash from Phuket Incineration Plant. CMU. J. Nat. Sci. 2008; 7:115-125.
- **Rattanapan C**, Boonsawang P, Kantachote D. Removal of H₂S in Down-Flow Biofiltration using Sulfide Oxidizing Bacteria from Concentrated Latex Wastewater. Bioresource Techno. 2009; 100:125-130.
- **Rattanapan C**, Boonsawang P, Kantachote D. Effect of H₂S and air flow rates on pure and consortium culture of sulfide oxidizing bacteria biofiltration for H₂S . J. Health Res, 2010; 24(suppl):1-6.
- **Rattanapan C**, Kantachote D, Yan R, Boonsawang P. Hydrogen sulfide removal using granular activated carbon biofiltration inoculated with *Alcaligenes faecalis* T307 isolated from concentrated latex wastewater. Int. Biodeter. Biodegr., 2010; (64): 383-387
- Rakkamon T, Chaimay B, Woradet S, **Rattanapan C**. Health Risk Assessment or Exposure to Heavy Metals in Tap Water: A Case study of Tamla Village Tap Water System, Lankhoy sub-district, Paprayoom district, Phatthalung province. J. Pub Health Develop, 2010, 8(2): 44-54 (in Thai).
- Wijaya S, **Rattanapan C**, Chompikul J, Factor Effecting Patients' Satisfaction with General Practitioners Consultations at Palembang Health Centers, Indonesia, J. Health Res, 2011 25(2): 77-81.
- Do M, **Ratanapan C**, Suksaroj T, Health Risk from Exposure to Trihalomethanes in Swimming Pool, J. Pub Health Develop, 2011 9(2): 208-222 (in Thai).
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- **Rattanapan C**, Sawain A, Suksaroj T, Suksaroj S. Enhanced efficiency of dissolved air flotation for biodiesel wastewater treatment by acidification and coagulation processes. Desalination, 2011; 280(1-3): 370-377.

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- **Rattanapan C**, Ounsaneha W. Removal of Hydrogen Sulfide Gas using Biofiltration - a Review. *Walailak Journal of Science and Technology*, 2012, 9(1): 9-18.
- **Rattanapan C**, TS Thunwadee, W Ounsaneha. Development of Eco-efficiency Indicators for Rubber Glove Product by Material Flow Analysis. *Procedia Soc Behav Sci*, 2012, 40: 99-106.
- S. Charmondusit, K. Bhaktikul, C. Arunlertaree, W. Wisawapipat, **C. Rattanapan**, K. Charmondusit. Problem Based Training Program on Industrial Ecology and Environment for the Sustainability Management of Industry. *Procedia Soc Behav Sci*, 2012, 40: 31-36.
- Muadchim, M, Suksaroj TT, **Rattanapan C**, Suksaroj C. Biogas production and biochemical methane potential of anaerobic co-digestion from pretreated biodiesel processing wastewater and decanter cake. *Thai Environmental Engineering Journal*, 2012 26(1): 15-23.
- **Rattanapan C**, Suksaroj TT, Kantachote D, Rakkamond T, Katemai W. Potential from Biogas Production for Co-digestion of Domestic Wastewater and Food Waste. *Health and The Environment Journal*, 2012, 3(2): 1-9.
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- **Rattanapan C**, Thunwadee TS, Wongsawass S, Ounsaneha W. Measure on Eco-efficiency of Thai Growing-Fishing Pig Farms. *Int J Environ Sci Dev*, 2013, 4(5): 533-537.
- **Rattanapana C**, Suksaroj TT, Chumpikul J and Choosong T. Health Risk Assessment of Hydrogen Sulfide Exposure among Workers in a Thai Rubber Latex Industry. *Environmentasia*, 2014, 7(1): 25-31.
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- Akai K, Chompikul J, and **Rattanapan C**. Rabies preventive behaviors of dog owners in Nakhon Pathom Province of Thailand. *J Pub. Health Dev.* 2015; 13(1): 17-28.
- Sayavong C, Chompikul J, Wongsawass S and **Rattanapan C**. Knowledge, attitudes and preventive behaviors related to dengue vector breeding control measures among adults in communities of Vientiane, capital of the Lao PDR. *J Infect Public Health* 2015; 8, 466—473.
- Soe KT, Laosee O, Limsatchapanich S, and **Rattanapan C**. Prevalence and Risk Factors of Musculoskeletal Disorder among Myanmar Migrant Workers in Thai Seafood Industries. *International Journal of Occupational Safety and Ergonomics* 2015; 21(4): 539-546.
- Ounsaneha W and **Rattanapan C**. Defining the Eco-Efficiency of Rubber Glove Products Manufactured from Concentrated Latex in Thailand. *Environmental Progress & Sustainable Energy* 2016; 35(3): 802-808.
- Hlaing ZN, Mongkolchati A and **Rattanapan C**. A Household Level Analysis of Water Sanitation Associated with Gastrointestinal Disease in an Urban Slum Setting of South Okkalapa Township, Myanmar. *Environmentasia*, 2016, 9(2): 91-100.

- Lwin, PM, **Rattanapan C**, Laosee, O. Nurses' intention to remain employed in hospitals: Understanding the shortage in the context of Myanmar. *International Journal of Nursing Practice* 2017; 23: e12536.
- Philalai T, Rattanapan C, Laosee O. Alcohol Consumption among Adults in Northern Thailand. *J. Health Res*, 2017; 31(2): 99-107.
- Klunbut P, Mongkolchat A, Ussawarujikulchai A, Ounsaneha W, **Rattanapan C**. Appropriate Option of Market Solid Waste Management based on the Stakeholder Perspectives: A Case Study in a Central Market of Agriculture Products, Thailand. *Journal of Materials and Environmental Sciences* 2017 8(7): 2391-2402.
- Ounsaneha W, **Rattanapan C** and Suksaroj TT. Enhancement of Eco-Efficiency Performance for Tread Product Process by Clean Technology. *The Journal of Industrial Technology* 2017 13(2): 49-63 (in Thai).
- Ounsaneha W, Kraisin P, Suksaroj TT, Suksaroj C, **Rattanapan C**. Health Risk Assessment from Haloacetic Acids Exposure in Indoor and Outdoor Swimming Pool Water, *Environmentasia*, 2017, 10(2): 177-185.
- Taecharungroj V, Suksaroj TT, **Rattanapan, C**. The place sustainability scale: measuring residents' perceptions of the sustainability of a town, *Journal of Place Management and Development*, 2018, 11(4): 370-390.
- Ounsaneha W, Janthaphat P, Suksaroj TT, **Rattanapan C**. Joint benchmarking and eco-efficiency for the sustainable performance of swine production in Thailand, *International Journal of Geomate*, 2018, 15(49): 137-142.
- Ounsaneha W, Chotklang N, Laosee O, **Rattanapan C**. Predictor of behavior intention to develop a green university in the case of an undergraduate university in Thailand, *International Journal of Geomate*, 2018, 15(49): 162-168.
- Soe AK, **Rattanapan C**, Wongsawass S, Laosee O. Use of insecticide-treated nets among pig owners living in Japanese encephalitis endemic area of Northern Myanmar, *International Journal of Geomate*, 2018, 15(50): 45-50.
- Laosee O, **Rattanapan C**, Somrongthong R. Physical and cognitive functions affecting road traffic injuries among senior drivers, *Archives of Gerontology and Geriatrics*, 2018, 78: 160-164.
- Manandhar S, Suksaroj TT, **Rattanapan C**. The Association between Green Space and the Prevalence of Overweight/Obesity among Primary School Children. *International Journal of Occupational and Environmental Medicine*, 2019, 10(1): 1-10.
- **Rattanapan C**, Sinchai L, Suksaroj TT, Kantachote, D, Ounsaneha W. Biogas Production by Co-Digestion of Canteen Food Waste and Domestic Wastewater under Organic Loading Rate and Temperature Optimization. *Environments*, 2019, 6: 16.
- Ounsaneha W, **Rattanapan C**. Enhancing Efficiency of Sugar Cane Production Process by Clean Technology. *Khon Kaen Agriculture Journal*, 2019, 47(SUPPL. 1): 59-66.

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- Ounsaneha W, Buadit T and **Rattanapan C**. Assessment of human health impact based on life cycle assessment: A case study of Thai retread tire. *IOP Conference Series: Materials Science and Engineering*, 2020, 773: 012038 .
- Ounsaneha W, Laosee O, Suksaroj TT, Srisamai P, and Rattanapan C. Tourist Behavior of Plastic Waste Reduction in the Coastal Area of Trang Province, Thailand. *International Journal of Environmental Science and Development*, 2020, 11(4): 165-169.
- **Rattanapan C**. Ounsaneha W. Environmental impact assessment of Thai banana supply chain. *International Journal of Environmental Science and Development*, 2020, 11(7): 341-346.
- Buadit T, **Rattanapan, C**. Ussawarujikulchai, Suchiva, K, Papong, S. Ma, H.-W. 2020. Life cycle assessment of material recovery from pyrolysis Process of end-of-life tires in Thailand. *International Journal of Environmental Science and Development*, 2020, 11(10): 493-498.
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- **Rattanapan, C.**, Ounsaneha, W. The potential for value-added banana production waste under circular economy concept. *International Journal of Environmental Science and Development*, 2022, 13(3): 92–96.
- Ounsaneha, W, Parunawin, W, Laosee, O, Isoda, N, **Rattanapan, C**. Household environmental practice for prevent and control dengue fever toward one health framework in an endemic area of central region, Thailand. *EnvironmentAsia*, 2022, 15(2): 34-44.
- Ounsaneha, W., Laosee, O., Suksaroj, T.T., **Rattanapan, C**. Preventive Behaviors and Influencing Factors among Thai Residents in Endemic Areas during the Highest Epidemic Peak of the COVID-19 Outbreak. *International Journal of Environmental Research and Public Health*, 2023, 20(3), 2525.

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- Suksaroj, C., Jearat, K., Cherypiew, N., **Rattanapan, C.**, Suksaroj, T.T. Promoting Circular Economy in the Palm Oil Industry through Biogas Co-digestion of Palm Oil Mill Effluent and Empty Fruit Bunch Pressed Wastewater. *Water (Switzerland)*, 2023, 15(12), 2153.
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- Laosee, O., Sritoomma, N., **Rattanapan, C.**, Wamontree, P. Effect of Fitness-To-Drive and Metacognition on Road Traffic Injury Among Older Taxi Drivers: Hierarchical Modeling. *Journal of Applied Gerontology*, 2024, 10.1177/07334648241241008.
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- Adhikari S, Thapa S, **Rattanapan C**, Laosee O, Sriram S, Bhatta J. Evaluating the impact of self-management interventions on COPD outcomes in low- and middle-income countries in Asia: a systematic review. *Health and Quality of Life Outcomes*, 2025, 23(1), 81.

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- Ounsaneha W, Bhatta J, **Rattanapan C.** Factors related to protective behaviors and interventions targeting PM2.5 exposure reduction: A systematic review. Green Technologies and Sustainability, 2026, 4(1), 100256.

RESEARCH GRANTS / FELLOWSHIPS

Health Risk Assessment of Exposure to Hydrogen sulfide of staff in Concentrated latex industry Sources: The Asthma Foundation of Thailand	2010 - 2011
The Optimization of Biogas Production from Domestic Wastewater by Co-digestion with Food Waste Sources: The Thailand Research Fund	2011 - 2013
Enhancement of Concentrated Latex Production Process for Rubber Glove Product by Eco-Efficiency Sources: The Thailand Research Fund	2011 - 2012
Enhancing Performance of Tread Product Process and Condom Product Process from Concentrated Latex by Eco-Efficiency Sources: National Research Cousin of Thailand and The Thailand Research Fund	2012
Strengthening the Sustainable Development of Pig farms using Eco-efficiency Sources: The Thailand Research Fund	2012 - 2013
Microbial community structure in anaerobic co-digestion of domestic wastewater and food waste in the laboratory continuously stirred tank and modified anaerobic baffled reactors Sources: The German Academic Exchange Service	2013
Eco-efficiency Evaluation of pig farm in Thailand Using Data Envelopment Analysis Sources: Austrian Agency for International Cooperation in Education and Research	2014
Appropriate Model for Solid Waste Management of Taladd Thai Phathumthani Province Sources: The Thailand Research Fund	2014 - 2015

Eco-efficiency Best Practice of Sugar Cane Production Industry for Sustainable Development by Benchmarking Sources: National Research Cousin of Thailand and The Thailand Research Fund	2014 - 2015
Direction Determination of Economic Crop Plantation in the Southern of Thailand toward Sustainable Development by Eco-efficiency with Ecological Footprint Sources: Mahidol University	2014 - 2015
Enhancement of Green Productivity for Sustainable Supply Chain Management of Dairy Cooperatives in the Central of Thailand by Value Chain Analysis Sources: The Thailand Research Fund	2016
A framework development to promote collective action in community within One Health principle of household environment practice to prevent and control dengue fever in Central region of Thailand. Sources: United States Agency for International Development (USAID)	2016 - 2017
Biogas Production by Co-digestion of Municipal Wastewater and Food Waste in Semi-continuous Operations Sources: Austrian Agency for International Cooperation in Education and Research and Office of the Higher Education Commission, Thailand	June 2017
Enhancement of Green Productivity for Sustainable Supply Chain Management of Tire Industry in Thailand by Value Chain Analysis Sources: The Thailand Research Fund	2017 - 2018
Enhancement of Green Productivity for Sustainable Tire Production and Used Tire Management in Thailand by Value Chain Analysis Sources: The Thailand Research Fund	2017 - 2018
Option of Sustainable Food Waste Management for Large Fresh Markets of Thailand Sources: The Thailand Research Fund	2017 - 2018
An examination of the factors that influence young drivers' willingness to speed and text while driving for sustainable encouragement of safety driving in Thailand. Sources: Mitsui Sumitomo Insurance Welfare Foundation	2018 - 2019
Appropriate Model for Plastic Waste Management in Coastal Province toward Stakeholder integration and Sustainability: A Case Study of Trang Province. Sources: National Research Cousin of Thailand	2019
Sustainable Supply Chain Management of the Tyre Industry in Thailand by Enhancing Green Productivity with Value Chain Analysis Sources: National Research Cousin of Thailand	2020 - 2023

Risk Reduction for Epidemics of the COVID-19 in Thai Urban Cities by Environmental Risk of Exposure Assessment Sources: National Science Research and Innovation Fund	2022 - 2023
Critical Success Factors for Epidemics of COVID-19 Prevention and Control in Thai Urban Cities by Environmental Risk of Exposure Assessment Sources: National Science Research and Innovation Fund	2023 - 2024
Effectiveness Program of Road Safety Literacy for Foreign Visitor Cyclists in a World Heritage Site of Thailand. Sources: Mitsui Sumitomo Insurance Welfare Foundation	2024
Circular Economy Approach in the Optimization of Biogas Production by Co-digestion between Solid and Liquid Wastes from Thai Fresh Markets Sources: National Research Council of Thailand and Mahidol University	2024 - 2027
Appropriate pathway development for reducing fine particulate matter (PM 2.5) concentration and exposure risk in Thai urban residents Sources: National Science Research and Innovation Fund	2024 - 2025
Research Cluster of Circular Economy for Healthcare Waste Management Sources: Mahidol University	2025-2026

AWARDS AND HONORS

Major advisor for the outstanding thesis awards promoting Mahidol University's SDGs Policies Faculty of Graduate Studies, Mahidol University	2024
Major advisor for thesis promoting SDGs Policies Faculty of Graduate Studies, Mahidol University	2025