Sustainable Solid Waste Management and Technology (SWMT) Research Unit



Scholarship opportunities are available for applicants to the Master and PhD degree programs under the research theme of a rapidly growing industry, "Sustainable Waste Management and Technology"



Our researchers



Assoc. Prof. Dr. Sirintornthep Towprayoon
Waste and Circular Economy

Sustainable Development Low Carbon City



Dr. Komsilp Wangyao

Bio-drying Leachate-to-Energy Survey & Drone Landfill technology



Dr. Awassada Phongphiphat

Plastic waste management Refuse-derived fuel Waste-to-energy systems Forecasting & Process modelling



About our research unit

The SWMT research unit is a working group under the "Advanced Greenhouse Gas and Aerosol Research Laboratory (AGAR)". We are conducting implementable research on solid waste from management and technology perspectives, solving national and regional issues from waste sources to the final disposals and utilization. Our research activities are based on real-world problems where we engage with government agencies, local municipalities, factories and industries, private companies, other national and international research institutes.





Depending on their thesis topics, students under SWMT are assigned, within the different allocated timeframe, to work with computer-based modelling, lab-scale experiments, pilot plant run & test, and actual site measurements and monitoring. Students are strongly encouraged to participate in supervisors' research projects to gain more experience and much-needed working skills beyond their thesis.

Solid waste management and technology is an arena of interdisciplinary people, so does SWMT! We are looking for

- Graduates from all nationalities with Bachelor or Master degree in engineering and science from a recognized university
 in the following fields: environmental, chemical, sanitation, energy, mechanical, computer, physics, mathematics, and
 economics. For a minimum GPA and English proficiency requirement, please see:
 - https://www.jgsee.kmutt.ac.th/v3/guide-to-admissions/
- Applicants who are green at heart, enthusiastic in teamwork but can independently carry out their research, travel to
 other provinces or abroad as part of their work and enjoy working in an international environment.

Scholarships

1.Scholarships that include monthly stipend and tuition/school fees

Scholarships are available for all qualified students.

There are 4 types of scholarship:

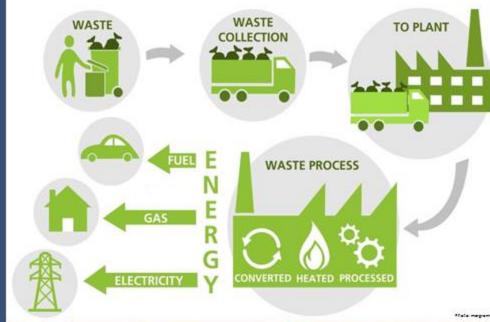
- 1. Full scholarship that covers school fees, tuition fees and living allowance (Master: 10,000 baht/month, PhD: 13,000 baht/month
- 2. Scholarship that covers school fees and tuition fees
- 3. Scholarship that covers school fees only
- 4. Scholarship that covers part of tuition fees or school fees

2. Research fund.

One of the aims of JGSEE is to produce high quality research work. To this end, funds are made available to all students as thesis expense starting since the first semester students enroll for their thesis study. The maximum amount of funding for each program is as indicated below;

PhD: 290,000 Baht

MEng/MSc: 135,000 Baht







Openning research topics





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- 1. Environmental and economic impacts of bioplastics on MSW management system in Thailand
- Forecasting the changes in MSW-to-energy systems in Thailand as a result of waste recycling and circular economy

4. Management and energetic utilization technologies for non-recyclable plastic waste

non-recyclable plastic waste in Thailand

- Monitoring and Management of Pollutions from Waste Recycling and Waste-to-Energy Systems
- **6.** Analysis of GHG emission from Asian waste sector under disaster crisis (Master level)

Supervising Academic Staff

Assoc.Prof.Dr. Sirintornthep Towprayoon and Dr.Awassada Phongphiphat

Assoc.Prof.Dr. Sirintornthep Towprayoon and Dr.Awassada Phongphiphat

3. Material flow analysis of recyclable plastic waste and Assoc.Prof.Dr. Sirintornthep Towprayoon

and Dr.Awassada Phongphiphat

Assoc.Prof.Dr. Sirintornthep Towprayoon and Dr.Awassada Phongphiphat

Assoc.Prof.Dr. Sirintornthep Towprayoon and Dr.Awassada Phongphiphat

Assoc.Prof.Dr. Sirintornthep Towprayoon

Email

awassada.pho@kmutt.ac.th

awassada.pho@kmutt.ac.th

awassada.pho@kmutt.ac.th

awassada.pho@kmutt.ac.th

awassada.pho@kmutt.ac.th

sirin@jgsee.kmutt.ac.th

Openning research topics

soil from landfill mining





Research Project 7. Life cycle assessment of the RDF recovery in a thin layer treatment process	Supervising Academic Staff Assoc.Prof.Dr. Sirintornthep Towprayoon and Dr.Komsilp Wangyao	Email komsilp@gmail.com
8. Implementation of climate-friendly waste management in the pilot municipality	Assoc.Prof.Dr. Sirintornthep Towprayoon and Dr.Komsilp Wangyao	komsilp@gmail.com
9. Development of a method for locating landfill gas collection systems using unmanned aircraft technology and geophysics	Assoc.Prof.Dr. Sirintornthep Towprayoon and Dr.Komsilp Wangyao	komsilp@gmail.com
10. Evolution of electrical resistivity measurements during the process of waste Biodrying	Assoc.Prof.Dr. Sirintornthep Towprayoon and Dr.Komsilp Wangyao	komsilp@gmail.com
11. Applying ground-penetrating radar as pre-screening tools prior to waste mining	Assoc.Prof.Dr. Sirintornthep Towprayoon and Dr.Komsilp Wangyao	komsilp@gmail.com
12. Evaluating the oxidative potential of fine fraction	Assoc.Prof.Dr. Sirintornthep Towprayoon	komsilp@gmail.com

and Dr.Komsilp Wangyao











Join us to find solutions for resource efficiency, circular economy and sustainability with out forefront technology and innovation.

