

Topics by Research Programs for Master & PhD applicants

Research Program	Research Project	Supervising Academic Staff	E-Mail
1. Bioenergy Technology and Innovation	1.1 Development of small/medium scale biomass gasification for heat and power production 1.2 Production of High efficiency Biogas and its Application 1.3 Development of Biodiesel Process for ASEAN Industry 1.4 High Quality Fuel from Municipal Solid Waste 1.5 Integrating Process of Biomass Conversion to Fuel and its High Value Chemicals 1.6 Development of torrefaction process for Thai biomass	Assoc. Prof. Dr. Suneerat Fukuda Assoc. Prof. Dr. Sumate Chairapat Assoc. Prof. Dr. Chakrit Tongurai Dr. Yossapong Laonual Prof. Dr. Navadol Laosiripojana Assoc. Prof. Dr. Nakorn Worasuwanarak	suneerat@jgsee.kmutt.ac.th sumate.ch@psu.ac.th chakrit.t@psu.ac.th yossapong.lao@kmutt.ac.th navadol@jgsee.kmutt.ac.th nakorn@jgsee.kmutt.ac.th
2. Energy and Environmental Technology for sustainable urban building development towards net zero energy building	2.1 Development and support on the implementation of energy efficiency code and carbon rating scheme for commercial buildings and residential houses 2.2 Solar Cooling and Dehumidification and Dedicated Outside Air System 2.3 Development of Technologies for Daylighting through Window and Roof Aperture for Commercial and Residential Buildings in Thailand	Prof. Dr. Surapong Chirarattananon Asst. Prof. Dr. Pattana Rakkwamsuk Asst. Prof. Dr. Pipat Chaiwiwatworakul	surapong_chira@yahoo.com pattana.rug@kmutt.ac.th pipatc@gmail.com
3. Integrate Energy and Environment for sustainable green urban approach	3.1 Development of Green and Low Carbon City 3.2 Sustainable Integrative Indicator for and Urban Area 3.3 Investigation of Weather and Climatic Conditions, Air-Borne Constituents, Land Cover Change, and Their Relationships for Selected Large Urban Areas.	Assoc. Prof. Dr. Sate Sampattagul Prof. Dr. Shabbir Gheewala Assoc. Prof. Dr. Kasemsan Manomaiphiboon	sate@eng.cmu.ac.th shabbir_g@jgsee.kmutt.ac.th kasemsan_m@jgsee.kmutt.ac.th

<p>4. Solid Waste Management for Sustainable Energy and Environment</p>	<p>4.1 Development of Pilot Plant of Biogas Production without Organic Waste Separation Process 4.2 Application of Serial-self Turning Composting Technology in Local Community 4.3 Study on the Utilization of Municipal Solid Waste for Biogas, Compost, and RDF and the Assessment of Environmental Impacts from the Processes 4.4 Development of Forecasting Model of MSW and its Potential of Utilization in Thailand 4.5 Improve MSW Management to provide industrial standard RDF for Import Purpose 4.6 Monitoring and Management of Pollution from Waste to Energy System 4.7 Environmental and economic impacts of bioplastics on MSW management system in Thailand 4.8 Forecasting the changes in MSW-to-energy systems in Thailand as a result of waste recycling and circular economy 4.9 Material flow analysis of recyclable plastic waste and non-recyclable plastic waste in Thailand 4.10 Management and energetic utilization technologies for non-recyclable plastic waste</p>	<p>Assoc. Prof. Dr. Sumate Chairapat Assoc. Prof. Dr. Taweep Chaisomphob Assoc.Prof.Dr. Sandhya Babel Assoc. Prof. Dr. Sirintornthep Towprayoon Dr. Komsilp Wangyao 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 and Dr.Awassada Phongphiphat Assoc.Prof.Dr. Sirintornthep Towprayoon and Dr.Awassada Phongphiphat</p>	<p>sumate.ch@psu.ac.th taweep@siit.tu.ac.th sandhya@siit.tu.ac.th sirin@jgsee.kmutt.ac.th komsilp@gmail.com awassada@outlook.com awassada.pho@kmutt.ac.th awassada.pho@kmutt.ac.th awassada.pho@kmutt.ac.th awassada.pho@kmutt.ac.th</p>
<p>5. Climate Change Technology and Innovation</p>	<p>5.1 Development of High-resolution Gridded Climatological Database and Derived Products for Thailand 5.2 Development of Technology and Innovation for Economic Plant to come with Climate Change and Climate Variable 5.3 Development of system analysis framework to identify risk area to air pollution due to tropospheric ozone and particulate matter (PM2.5 and PM10) for Thailand 5.4 Impacts of climate extreme on evapotranspiration and carbon exchanges of forest and agricultural ecosystems</p>	<p>Assoc. Prof. Dr. Usa Humphries Assoc. Prof. Dr. Amnat Chidthaisong Assoc. Prof. Dr. Savitri Garivait Dr. Chaiwat Ekkawatpanit</p>	<p>usa.wan@kmutt.ac.th amnat@jgsee.kmutt.ac.th savitri@jgsee.kmutt.ac.th chaiwat.ekk@kmutt.ac.th</p>