



# SDG REPORT

2023 - 2024

King Mongkut's Institute of Technology Ladkrabang



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# Introduction

**The United Nations (UN) has introduced 17 Sustainable Development Goals (SDGs) to address global challenges such as poverty, gender equality, quality healthcare and education, and environmental preservation, aiming to create a more sustainable world for everyone.**

King Mongkut's Institute of Technology Ladkrabang (KMITL) has integrated these SDGs into its development strategies and activities. The institute's mission extends beyond producing knowledgeable graduates to instilling social and environmental responsibility. Through collaboration among faculty, students, and staff, KMITL drives projects that effectively contribute to these global goals.

SDG Progress Reports are essential for KMITL to demonstrate its commitment, accountability, and progress. These reports are tailored to diverse audiences, such as students, investors, and external partners, with content adjusted to their interests—ranging from action plans and budgets to project impacts and lessons learned.

KMITL begins its reports with an overview of how the institution aligns with the SDGs, emphasizing its responsibility and strategic rationale. The reports are transparent and supported by relevant data, balancing concise overviews with detailed evidence. This approach ensures that KMITL effectively communicates its role in global sustainability efforts.

# 1 NO POVERTY

"Innovation to End Poverty and Build a Stable, Sustainable Society"

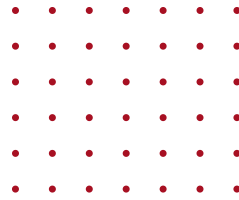
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Eradicating poverty is not a task of charity, it's an act of justice and the key to unlocking an enormous human potential. Still, nearly half of the world's population lives in poverty, and lack of food and clean water is killing thousands every single day of the year. Together, we can feed the hungry, wipe out disease and give everyone in the world a chance to prosper and live a productive and rich life.





# KMITL SCHOLARSHIP



ด่วน...!! เปิดรับสมัคร

## ยื่นขอทุนฯ ปริญญาตรี

สำหรับนักศึกษาคณะไอทีลาดกระบัง  
ประจำปีการศึกษา 2567

ตั้งแต่บัดนี้ - 31 ต.ค. 2567

- ✓ ทุนเรียนดีและขาดแคลนทุนทรัพย์
- ✓ ทุนขาดแคลนทุนทรัพย์
- ✓ ทุนช่วยเหลือค่าใช้จ่ายทางการศึกษาแบบฉุกเฉิน

**KING MONGKUT'S INSTITUTE OF TECHNOLOGY LADKRABANG (KMITL) IS COMMITTED TO SUPPORTING STUDENTS FROM LOW-INCOME BACKGROUNDS THROUGH VARIOUS SCHOLARSHIP PROGRAMS. IN 2023, KMITL OFFERED SEVERAL SCHOLARSHIPS AIMED AT ALLEVIATING FINANCIAL BURDENS AND PROMOTING EDUCATIONAL ACCESS:**

1. Scholarships for Students with Good Academic Achievement but Lack of Capital: These scholarships are designed for students who demonstrate strong academic performance but face financial challenges. They provide financial assistance to help cover tuition and other educational expenses.
2. Scholarships for Students Lacking Capital: Specifically targeted at students experiencing financial hardship, these scholarships aim to ensure that financial constraints do not hinder educational opportunities.
3. Emergency Educational Expense Fund: This fund offers immediate financial support to students encountering unexpected financial difficulties, ensuring they can continue their studies without interruption.

These initiatives reflect KMITL's dedication to reducing poverty by providing equitable access to education. By supporting students in need, KMITL contributes to breaking the cycle of poverty and fostering a more inclusive academic environment.

# 2 ZERO HUNGER

"Research and Development for Food Security, Sustaining All Lives"

End hunger, achieve food security and improved nutrition, and promote sustainable agriculture



# 2

## Zero Hunger



# KMITL's Faculty of Agricultural Technology Delivers Knowledge to High School Students, Teaching Them to **Grow Hydroponic Vegetables the Easy Way, "Home-Style"**



The Faculty of Agricultural Technology at KMITL continues its mission to share knowledge with high schools by sending experts and students led by Ms. Wilasinee Homraren, an education scholar, along with Mr. Suriyasit Somnuek, an agricultural scholar from the Public-Private Sector Research Center, and fellow students from the Plant Production Technology program. They visited Wat Nong Jok Secondary School to organize a workshop on "Hydroponics Made Easy, Home-Style," teaching 50 high school students how to grow vegetables using hydroponic methods. The students were eager to learn about seed planting, preparing growing materials, and simple hydroponic techniques suitable for household use. They were able to apply the knowledge gained from this training in practical ways.

# 3 GOOD HEALTH AND WELL-BEING

"Innovative Health Solutions for Sustainable  
Quality of Life"

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ENSURE HEALTHY LIVES AND PROMOTE  
WELL-BEING FOR ALL AT ALL AGES.







# KMITL Clinic

## is Running at Full Capacity



Our team has worked very hard to establish a more standardized order of operations in our KMITL Clinic. With the goal of serving all KMITL staff and supporting communities, we have turned our clinic into a hub for first-line medical treatment. Our highly qualified physicians and nurse practitioners are ready at the willing to improve quality of healthcare for our university.



# 4 QUALITY EDUCATION

"Fostering Wisdom, Developing Society for Sustainability"

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Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.





# ENGLISH DEBATE COMPETITION

In July 2023, King Mongkut's Institute of Technology Ladkrabang (KMITL) hosted the English Debate competition, organized by the Office of International Affairs (OIA). This event provided a platform for students to showcase their English proficiency and teamwork skills. The competition featured two rounds: the first on July 19, 2023, and the final on July 26, 2023. The winning team received a prize of 6,000 baht, while the runner-up team was awarded 4,500 baht. The event was part of KMITL's commitment to promoting international engagement and enhancing students' language abilities. It also aligned with the institute's broader initiatives to foster a global perspective among its students.



# KMITL ENGLISH CAFE 2023

In 2023, King Mongkut's Institute of Technology Ladkrabang (KMITL) organized several English Café sessions to enhance English language proficiency among students and staff. These sessions provided a relaxed environment for participants to practice English through discussions, games, and interactive activities.

## **April 2023 Sessions:**

- April 12, 2023: "Vocabulary Building: Word Categories" was held from 11:00 AM to 12:00 PM at the Activity Area, 2nd floor, KMITL Central Library.
- April 19, 2023: "Grammar Essentials: Tense Overview" took place at the same venue and time.
- April 24, 2023: A discussion on "The Adventures of Huckleberry Finn" by Mark Twain was conducted from 1:00 PM to 2:00 PM at The Boon Café, School of Architecture, Art and Design.
- April 26, 2023: "Writing Skills: Persuasive Writing" was organized from 11:00 AM to 12:00 PM at the Activity Area, 2nd floor, KMITL Central Library.

## **September 2023 Sessions:**

- September 13, 2023: An English Café session was held at 1:00 PM at Student Enterprise (True LAB), E-12 Building.
- September 19, 2023: The "English Café Game Night Level Up!" event featured interactive games to enhance language skills.





## Freshmen have several privileges at the KLLC library:

1. **Library of Things:** New students can borrow more than just books. Items available for borrowing include iPads, laptops, Apple Pencils, power strips, HDMI cables, USB adapters, and even board games, which can be used in the library's designated areas.
2. **Resource Delivery Service (RD):** This service provides delivery of library resources directly to users, eliminating the need to visit the library in person. There are two types of delivery options:
  - **Home Delivery:** Books are sent directly to your home via postal service.
  - **Point Delivery:** You can pick up the books from a locker located in front of the library.
3. **Study Room / Research Support Room:** Freshmen can reserve various rooms in the library, including study and research support rooms, through the KMITL UApp, which is available on both iOS and Android.
4. **Co-Working Space:** This learning space is open 24 hours a day, providing The Faculty of Architecture, Art, and Design organized a workshop to discover new, energetic startup teams. Many students from various faculties and colleges participated in the event, which was filled with fun, creativity, and engaging training sessions on topics such as Digital Marketing & Media Branding and Innovative Tools for Business Demographics.



## Creative Startup 2023 Season 2

The Faculty of Architecture, Art, and Design organized a workshop to discover new, energetic startup teams. Many students from various faculties and colleges participated in the event, which was filled with fun, creativity, and engaging training sessions on topics such as Digital Marketing & Media Branding and Innovative Tools for Business Demographics.





## Metaverse and the IT Faculty at KMITL: Advancing Virtual World Knowledge into Education

The Faculty of Information Technology at King Mongkut's Institute of Technology Ladkrabang (KMITL) is ready to support students with dreams and passion in the Metaverse. By breaking down learning barriers and obstacles, students are given hands-on experience to enhance their skills and gain valuable knowledge under the guidance of faculty members who continually advance their expertise. With comprehensive learning resources and equipment, the faculty is committed to developing students to meet future labor market demands, transforming Thais from users to developers and creators of the virtual world.

### KMITL FUTURE INNOVATOR

KMITL Future Innovator offers an opportunity for innovation students and researchers to learn and exchange ideas for creating practical innovations for everyday life. Challenge your thinking in a Pitching Competition, where you can present innovative concepts to address future problems and potentially receive investment from investors and various organizations!

Additionally, there is a national innovation contest focused on nanotechnology, promoting and developing environmentally friendly innovations in the field of nanotechnology. The KMITL Future Innovator program consists of three sub-activities: training on Smart City, Digital, and AI.



**KMITL FUTURE INNOVATOR**  
ต้อนรับสู่โลกของเทคโนโลยีนวัตกรรม  
เรียนรู้การสร้าง SMART CITY และ DIGITAL & AI

Dr. Sirdetch Boonsang    Panlert Ruksapan    Jirachai Chansivanon    Phoomparin Mano

*Join on Site*

**TRAINING SESSION**  
8 JULY 2023

ยินดีต้อนรับสู่เรียนรู้ Smart City และ Digital & AI ที่จะเปิด  
ประสบการณ์ใหม่ในการสร้างและจัดการเมืองอัจฉริยะด้วยเทคโนโลยี

[Learn More](https://lifelong.kmitl.ac.th)  
lifelong.kmitl.ac.th

**More Info call us :**  
023298000-3034

## GenEd Day 2023

1. Discover the Top 5 Soft Skills that KMITL students are eager to develop the most.
  - **GenEd Talk&Ask:** Meet expert speakers and experienced instructors from popular GenEd courses, featuring engaging topics that help build essential soft skills for KMITL students.
  - **GenEd Booths and KMITL Department Booths:** Explore various courses that can be transferred for GenEd credit.
  - **GenEd Course Booths:** Learn about the most popular courses in Thailand, including Charm School, Digital Intelligence Quotient, and Chinese for Travel.





# 5 GENDER EQUALITY

"Building an Equitable Society with Respect  
for Everyone's Value"

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Achieve gender equality and empower all  
women and girls.



Celebrate  
ประเทศไทย @  
สมรสเท่าเทียมแล้ว  
Pride Month 2024



## Historic Decision: The Senate Approves the Equal Marriage Law

KMITL joins in celebrating with the LGBTQIA+ community as the Equal Marriage Law has now become a historic milestone in Thailand. It is the first country in ASEAN and the third in Asia to pass this legislation.

# 6 CLEAN WATER AND SANITATION

"Utilizing Water Resources Wisely for a Sustainable Environment"

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Ensure availability and sustainable management of water and sanitation for all.



# INSTALLING GROUNDWATER WELLS UNDER THE "PROJECT FOR GROUNDWATER RESOURCE DEVELOPMENT TO PROMOTE ROYAL INITIATIVES, MODEL"



The Groundwater Resources Office Region 2 (Suphan Buri) has undertaken the installation of groundwater wells as part of the "Project for Groundwater Resource Development to Promote Royal Initiatives, Model 2" at the KMITL Science and Technology Research and Transfer Center.

This project is coordinated by Associate Professor Dr. Supatra Pho-iem, a faculty member of the Department of Biology, Faculty of Science, KMITL. The project will support research and educational initiatives focused on the utilization of cassava at the KMITL Science and Technology Research and Transfer Center.



# 7 AFFORDABLE AND CLEAN ENERGY

"Energy for Development, Driving Towards the Future"

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Ensure access to affordable, reliable, sustainable and modern energy for all.





## BE Boat: Solar-Powered Electric Boat for the Environment, Tourism, and Community

BE Boat, a solar-powered electric boat (Battery Electric Boat), is a research project by the engineering research team at KMITL, led by Associate Professor Phichit Lamyong, with research funding support from Innovation Technology Co., Ltd. This project has developed a prototype solar-powered electric boat that uses solar energy stored in batteries, aiming to primarily harness clean energy from sunlight for propulsion. The boat has been tested for travel in the Thai sea to Koh Muk, Trang Province.

BE Boat produces minimal noise and emits no fuel odors, contributing to the advancement of environmentally friendly electric boats. This innovation serves as a starting point for sustainable living on Koh Muk, promoting economic growth while preserving the environment. It emphasizes clean energy and supports tourism and community development in harmony with environmental conservation.





# 8 DECENT WORK AND ECONOMIC GROWTH

"Growing Sustainably, Creating Economic Opportunities for All"

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Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.



## Prototype Graphene Production Factory at the Faculty of Science, KMITL

The Faculty of Science at King Mongkut's Institute of Technology Ladkrabang (KMITL) has received research funding from the Office of the Permanent Secretary, Ministry of Higher Education, Science, Research and Innovation (MHESI) under the "Value Creation from Research for Commercial Use (Pundao)" project. This research initiative, titled "Establishment of an Automated Industrial-Scale Prototype Graphene Production Factory," aims to produce graphene at a capacity of 15 kilograms per month, valued between 60 to 100 million baht per month. The cost of production is lower compared to imported graphene, and the prototype factory is located at the Faculty of Science, KMITL.



# 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

"Research and Development to Build Modern  
Infrastructure"

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Build resilient infrastructure, promote  
inclusive and sustainable industrialization  
and foster innovation.





## Creating a Thai-Made Train Car Named “Beyond Horizon”

Entering its 64th year, KMITL has showcased its capabilities by developing the first Thai-made train car prototype named “Beyond Horizon.” This luxurious passenger train car model, designed and manufactured entirely by Thais, uses 70% locally sourced materials. It features both Luxury Class and Super-Luxury compartments and is intended for medium-distance railway routes spanning 200-500 kilometers.

This project is a collaboration between King Mongkut's Institute of Technology Ladkrabang (KMITL), Sino-Gen Pinpetch Co., Ltd., and the State Railway of Thailand (SRT), with research funding from the Program Management Unit for Competitiveness (PMUC). The goal is to develop a prototype train car that emphasizes research and development while utilizing local technology, aligning with the Ministry of Transport’s “Thai First” policy and the government’s initiative to promote the use of domestically produced products.

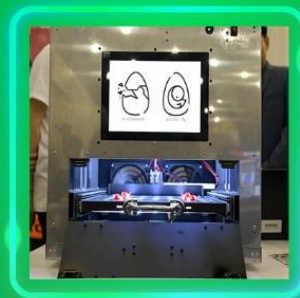


## Developing the Innovation 'AgTech AI'

Entering its 64th year, KMITL is focused on developing the 'AgTech AI' innovation, an AI-powered egg quality inspection cabinet with embedded systems. This innovation can be integrated into large-scale production lines, reducing processing time and increasing the volume of inspected eggs.

Consolutech Co., Ltd., a startup team consisting of Ph.D. students from the Faculty of Engineering at KMITL—Mr. Wasuthorn Chawalitthawil, Ms. Waranitha Krungsanmuang, Mr. Thanaphat Sirikam, Mr. Chawinkorn Piyatananukul, Mr. Pasathip Sathaporn, and Mr. Chananon Manthawornsiri—developed the “AgTech AI.” This cabinet uses artificial intelligence (AI) combined with embedded systems to sort out imperfect eggs before they enter the hatching room. This innovation aims to elevate agriculture with advanced technology and establish new quality standards for Thailand's egg and hatchery industry.

# ก้าวสู่ ปีที่ 64...สจล. มุ่งพัฒนานวัตกรรม AgTech Ai



ทีมสตาร์ทอัพ นักศึกษา สจล. บจก. คอนโซลูเทค คิดค้นนวัตกรรม “เอจเทค เอไอ” (AgTech AI)

ผู้ตรวจสอบคุณภาพไข่โดยใช้เทคโนโลยีปัญญาประดิษฐ์ (AI) ร่วมกับระบบสมองกลฝังตัว

เพื่อคัดแยกไข่ไก่ที่ไม่สมบูรณ์ก่อนเข้าห้องฟัก สร้างมาตรฐานแก่อุตสาหกรรมไข่

และโรงฟักของประเทศ ยกกระดับเกษตรกรรมด้วยนวัตกรรม

# 10 REDUCED INEQUALITIES

"Creating Equal Opportunities, Supporting Everyone to Grow Together"

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Reduce inequality within and among countries.



## DEP MASTERCLASS BY KMITL: "Digital Media Production" for People with Disabilities – Creating Jobs and Careers

The DEP MASTERCLASS by KMITL offers a unique opportunity for individuals with disabilities to gain skills in digital media production, empowering them to create jobs and build careers in the rapidly growing digital industry. The course focuses on teaching practical techniques in digital content creation, including video production, graphic design, and online media management. Participants will learn how to produce high-quality media content, equipping them with the skills to work in various digital sectors, from advertising to entertainment.

By providing this specialized training, the program aims to enhance the employability of people with disabilities and help them become self-sufficient by leveraging the power of digital media. This initiative also promotes inclusivity and accessibility, ensuring that individuals with disabilities have the tools and knowledge to succeed in the digital world, contributing to the economy and society.









# 11 SUSTAINABLE CITIES AND COMMUNITIES

"Clean and Safe Cities for a Better Life"

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Make cities and human settlements inclusive, safe, resilient and sustainable.



# KMITL Smart City Training

King Mongkut's Institute of Technology Ladkrabang (KMITL) organized a training session on the development of smart cities and the preparation of smart city development projects to apply for certification from the Digital Economy Promotion Agency (DEPA).



**ประธานกล่าวเปิดงาน**  
 รศ. ดร.คมสัน มาลีสี อธิการบดี  
 สถาบันเทคโนโลยีพระจอมเกล้าเจ้าคุณทหารลาดกระบัง

**ผู้ดำเนินรายการ**  
 ผศ. ดร.ปฐมนิ ชวัญสุวรรณ  
 ผู้อำนวยการสำนักวิจัยนวัตกรรมเมืองอัจฉริยะ  
 สถาบันเทคโนโลยีพระจอมเกล้าเจ้าคุณทหารลาดกระบัง

**วิทยากร**  
 รศ. ดร.วิฑูลีศักดิ์ อรรถมากรณ์นิลาศ  
 ภาควิชาการวางแผนภาคและเมือง  
 คณะสถาปัตยกรรมศาสตร์  
 จุฬาลงกรณ์มหาวิทยาลัย

ดร.นพ. วัชรประเสริฐกุล  
 ผู้เชี่ยวชาญอาวุโส ฝ่ายส่งเสริมเมืองอัจฉริยะ  
 สำนักงานส่งเสริมเศรษฐกิจดิจิทัล (depa)

คุณนิรันดร์ ดวงรัตน์  
 บริษัท KPME จำกัด

**สถาบันเทคโนโลยีพระจอมเกล้าเจ้าคุณทหารลาดกระบัง**  
**จัดอบรมการพัฒนาเมืองอัจฉริยะ และการจัดทำโครงการพัฒนาเมืองอัจฉริยะ**  
**เพื่อขอรับรองตราสัญลักษณ์จากสำนักงานส่งเสริมเศรษฐกิจดิจิทัล**

**26 กรกฎาคม 2567** 09:00 - 16:00 น.  
 หัวข้อบรรยาย  
 - สัมภาษณ์ผู้นำท้องถิ่น : แนวทางและข้อสังเกตการขับเคลื่อนมหาวิทยาลัยสู่เมืองอัจฉริยะ  
 - กระบวนการ ขั้นตอน และตัวอย่างการส่งเสริมเมืองอัจฉริยะ  
 - ประชุมปฏิบัติการ : การวิเคราะห์สถานการณ์และศักยภาพ (SWOT Analysis) เมื่อการเป็น Smart City

**2 สิงหาคม 2567** 09:00 - 16:00 น.  
 หัวข้อบรรยาย  
 - ประชุมปฏิบัติการ : แผนพัฒนาเมืองอัจฉริยะ KMITL Smart City

**8 สิงหาคม 2567** 09:00 - 14:00 น.  
 หัวข้อบรรยาย  
 - ข้อเสนอแผนพัฒนาเมืองอัจฉริยะ KMITL Smart City

QR Code: 

Facebook:  **สำนักวิจัยนวัตกรรมเมืองอัจฉริยะ - SCIRA KMITL**

# 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

"Developing Sustainable Consumption Practices to Reduce Impact on the Planet"

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Ensure sustainable consumption and production patterns.





## **K Veggi Screen: An Innovation for Detecting Residual Chemicals in Vegetables**

Food is one of the four essential needs crucial to human life, and it plays a significant role in determining our health. Therefore, we should pay close attention when selecting ingredients for our meals, such as vegetables, fruits, and meat. Imagine how beneficial it would be if we could easily check the quality of these ingredients.

Associate Professor Dr. Benjapol Tanhoo, a faculty member at the College of Materials Innovation and Technology at King Mongkut's Institute of Technology Ladkrabang (KMITL), recognized the importance of ensuring the safety of vegetables, which are widely consumed but often found to contain residual chemicals. This led to the development of K Veggi Screen, a prototype innovation designed to detect chemicals in vegetables before consumption. The device is user-friendly, convenient, and provides results quickly.



# 13 CLIMATE ACTION

"Creating Sustainable Consumption Practices to Minimize Impact on the Planet"

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Take urgent action to combat climate change and its impacts.



## Developing the 'eVTOL' Innovation

Entering its 64th year... KMITL is focusing on developing the 'eVTOL' (Electric Vertical Take-Off and Landing) innovation, an unmanned aircraft technology that uses electric power for vertical takeoff and landing. It aims to manage natural resources, wildfires, floods, and environmental issues. The technology is highly efficient, capable of flying for extended periods, transmitting real-time images and data, lightweight, and quiet. The daily operating costs are in the low thousands, compared to the hundreds of thousands when using helicopters.

In Phase 1, a pilot program was launched to survey and update the mapping of Thailand's forest resources by flying over 11 national parks to create aerial maps of 3 million rai and patrol 10 million rai. Phase 2 will focus on surveying Thailand's coastal areas, and Phase 3 will involve a project on urban security.

The International College of Aviation Technology, KMITL, in collaboration with the Digital Technology and Aviation Center of the Ministry of Natural Resources and Environment, has initiated this project to study and apply unmanned aerial vehicle technology and digital technologies. The goal is to produce data and create a database system for Thailand's natural resources and environment that is up-to-date.

## ก้าวสู่ ปีที่ 64...สจล. มุ่งพัฒนานวัตกรรม eVTOL



วิทยาลัยอุตสาหกรรมการบินนานาชาติ (IAAI) สจล.

ร่วมกับ กระทรวงทรัพยากรธรรมชาติและสิ่งแวดล้อม พัฒนานวัตกรรม 'อีวีทอล' (eVTOL) เทคโนโลยีอากาศยานไร้คนขับ ขึ้นลงแนวดิ่ง ใช้พลังงานไฟฟ้า สำรองท่าแผนที่ทรัพยากรป่าไม้ นำร่อง 11 อุทยานแห่งชาติ ทำแผนที่ภาพถ่าย 3 ล้านไร่ ลาดตระเวนทางอากาศ 10 ล้านไร่ สมรรถนะสูง มินิไดรฟ์ ส่งภาพและข้อมูลแบบเรียลไทม์ เบาและเงียบ ค่าใช้จ่ายต่อวันถูกหลักพัน

# "Green University: Toss, Turn, Make a Difference" Project

King Mongkut's Institute of Technology Ladkrabang (KMITL), through the Office of Physical and Environmental Resources Management, participated in the launch ceremony of the "Green University: Toss, Turn, Make a Difference" project at the Energy Complex Center on Vibhavadi Rangsit Road, Bangkok. Assistant Professor Dr. Arthit Petchasitthira, Assistant to the President for Physical, Environmental, and Property Affairs, along with executives, the environmental team, and student Green Agents representing KMITL, attended the event.

This campaign, in collaboration with AIS, PTT GC, and educational institutions, aims to raise awareness and instill a sense of responsibility for waste management within universities. It also seeks to build a network of young people to drive environmental efforts using platforms and applications, encouraging collective actions to reduce carbon dioxide emissions and properly recycle plastic and electronic waste.

As part of the project, KMITL will receive additional E-Waste and plastic waste collection points, which can be strategically expanded to essential areas such as the Faculty of Engineering, particularly departments that conduct labs involving electronic equipment.



## 1<sup>st</sup> E-Waste Blockchain in Southeast Asia

“การจัดการขยะอิเล็กทรอนิกส์ด้วย Blockchain บนแพลตฟอร์ม E-Waste+”



# 14 LIFE BELOW WATER

"Clean Seas, Bright Future, Building a Balanced World"

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Conserve and sustainably use the oceans, seas and marine resources for sustainable development.





## "Fisheries Science and Aquatic Resources Program"

The Fisheries Science and Aquatic Resources program at Chumphon Campus, King Mongkut's Institute of Technology Ladkrabang (KMITL), focuses on developing in-depth knowledge and skills in fisheries management and aquatic resource conservation. The curriculum integrates fundamental science, technology, and fisheries innovation to meet industry demands and promote sustainable development. Students will study aquatic biology, aquatic ecosystems, fisheries resource management, and aquaculture. Additionally, they will have opportunities to participate in fieldwork and collaborate with industry partners, equipping them with practical skills for careers in fisheries and aquatic resource management.



# 15 LIFE ON LAND

"Forest Conservation for a Stable and Sustainable Society"

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Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.





# GREEN UNIVERSITY

Transforming the campus into a clean, beautiful, lush, and well-organized environment aims to create a pleasant atmosphere for staff, encouraging them to work with a positive mindset. Additionally, a well-maintained campus atmosphere reflects the institute's stability and reliability, attracting more students to enroll. This initiative positions the university as a model Green University.

## *We Grow Together 2023 Project*

Associate Professor Dr. Komsan Maleesee, the President, along with the administration, faculty members, staff, and students, participated in a tree-planting activity under the We Grow Together 2023 project, titled "Invite a Friend to Plant: The Series," Episode 1.

# 16 PEACE, JUSTICE AND STRONG INSTITUTIONS

"Promoting Transparency and Good Governance for a Sustainable Future"

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Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.





# KMITL COUNCIL

The highest governing body of KMITL is the KMITL Council. The Council serves as the Board of Directors of other organizations. The Council consists of a total of nine members selected by highly qualified experts in different fields, top management team, and representatives from faculty and staff. The representatives from faculty and staff consists of the Chair of Faculty Senate (membered by both faculty members and non-faculty employees) and a representative from elected faculty member. In addition, the KMITL Management Committee led by the President also consists of the Chair of Faculty Senate to make sure that any management decisions and policies are agreed by the representative of all KMITL staff members. For students, KMITL Student Council and KMITL Student Union were established for representatives from all KMITL faculties and colleges to voice their opinions. Monthly meetings between the Council and the Office of Student Affairs (led by Executive VP of Student Affairs) are conducted regularly





## ประชุมหารือกับ **ตัวแทนนักศึกษา สจล.**

ณ ห้องประชุมแคนเสด สำนักงานอธิการบดี

# KMITL STUDENT UNION

KMITL Student Council and KMITL Student Union were set up for representatives from all KMITL faculties and colleges to comment. Monthly meeting between the council and the student affairs office (Led by Executive Vice President of Student Affairs) operates regularly Protect the interests As a medium for students Develop activities With fairness and transparency.

# 17 PARTNERSHIPS FOR THE GOALS

"Collaborating for a Sustainable World,  
Connecting All Sectors"

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Strengthen the means of implementation  
and revitalize the global partnership for  
sustainable development.





# Falling Walls Lab Thailand 5th Edition



King Mongkut's Institute of Technology Ladkrabang (KMITL), through the KMITL Research and Innovation Services (KRIS), in collaboration with Krung Thai Bank Public Company Limited and partner organizations, organized the 5th Falling Walls Lab Thailand. The event featured Assistant Professor Dr. Rachanee Kulayanont, Vice President for Research and Innovation at KMITL, along with representatives from partner organizations and past Thai representatives, who participated in a panel discussion to share their experiences. The final round to select the representative of Thailand was held on Saturday, August 26, 2023, at Eastin Grand Hotel Phayathai.

This competition offered students, entrepreneurs, and young researchers the opportunity to present their innovative ideas, research projects, and creative scientific concepts aimed at driving scientific and technological advancements with a positive societal impact. Participants were challenged to deliver their presentations effectively within 3 minutes. Winners from each country worldwide earned the right to be among the 100 Finalists who would present their work at the Falling Walls Lab Finale in Berlin, Germany, from November 7-9, 2023.

Under the leadership of Associate Professor Dr. Komsan Maleesee, President of KMITL, the institute has a policy of becoming a global leader in innovation, "The World Master of Innovation." KMITL is dedicated to developing quality graduates and researchers and is recognized for its excellence in research, technology, and innovation. The institute provided training and support to help participants deliver concise and impactful presentations.



# THREE PERSPECTIVES FROM THREE KINGS INSTITUTES

Associate Professor Dr. Komsan Maleeseen, President of King Mongkut's Institute of Technology Ladkrabang (KMITL), together with Professor Dr. Suchatvee Suwansawat, President of King Mongkut's University of Technology North Bangkok (KMUTNB), and Associate Professor Dr. Suvit Saetia, President of King Mongkut's University of Technology Thonburi (KMUTT), participated in a discussion titled "Three Kings Institutes Uniting to Drive the Nation with Innovation." This marked the beginning of a collaboration among the Three Kings Institutes, leveraging their expertise in innovation to propel the country forward. With a shared history of over 63 years, the journey ahead aims to produce high-quality graduates and alumni to advance the nation's industrial sector. For KMITL, the focus is on developing space technology to become a Space Hub Economy, along with transforming into a Digital University. This includes six clusters of student- and staff-driven innovations and supporting a Smart & Life Style Learning Space for students, addressing the needs of Digital Life & Smart Campus.



# OIL ABSORBING INNOVATION FROM BIOMASS



Associate Professor Dr. Apilak Iad-Ua, a faculty member at the College of Materials Innovation and Technology, discussed research on absorbent materials. He explained that they are currently exploring various types of biomass, with one promising option being cattail flowers. Normally, cattail flowers are hydrophobic, meaning they repel water. However, using a special process, they have been transformed into a material capable of absorbing oil spills, known as superhydrophobic material. This innovation can remove up to 100% of oil and absorb oil up to 16 times its own weight. Additionally, it can also eliminate unpleasant odors.

Dr. Apilak mentioned that the oil-absorbing mats made from cattail plants, which are considered weeds from nature, are environmentally friendly and non-toxic. By adding value to these natural resources, the innovation addresses issues like oil pollution and foul odors in water. This sustainable solution helps to reduce and remove contaminants before they are released into water bodies, benefiting the environment in the long term.



## Contact

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