





#### KOSEN-KMITL Building (Under construction)

### **MESSAGE FROM ACTING DIRECTOR**



Assoc. Prof. Dr.Komsan Maleesee Acting Director of KOSEN-KMITL

Welcome to KOSEN-KMITL, the first KOSEN in Thailand, supported by the cooperation between Japan government and Thai government since December 2018.

We believe that the development of manpower in science and technology will play a key role in supporting the target industry groups, both in S-curve and the New S-curve as well as driving countries with new and creative innovators.

In addition, the increasing number of high potential practical engineers will attract foreign companies, such as Japanese companies, to invest in THAILAND especially in EEC. The first batch of KOSEN-KMITL class was started teaching on 13<sup>th</sup> May 2019 with 24 excellent students in Mechatronics Engineering Program. The program integrates mechanical sciences, electronics system, control systems and computers for the smart manufacturing industries of automation and artificial intelligence.

The program will take 5 years to graduate and teaches by Japanese and Thai Professors, and also with assisted lecturers from Faculty of Engineering and Faculty of Liberal Arts of KMITL.

Accordingly, KOSEN-KMITL will start the Computer Engineering Program in May 2021. After that the Electrical and Electronics Engineering Program is scheduled to start from May 2023.

Challenging is one of our features to encourage our students to do in the classes. Moreover, we also try to lead our students to participate in several Contest, for example World Robot Games, Kinokuni Robot Festival, Space Flying Robot Programming Challenge, KOSEN English Presentation All Contest. So, we hope that our students will have many skills during 5 years at KOSEN-KMITL such as teamwork working skill, practical engineering skill, creative thinking skill, English and Japanese communication skills.

Finally, we are looking forward to seeing our students to have an opportunity to develop new society in Thailand industries.





# ABOUT KOSEN-KMITL

KOSEN-KMITL is tertiary а educational institute that is established according to the engineering workforce development program. Technology and innovation support investment and increase industrial capacity in the country and region. Established under the cabinet resolution on 4<sup>th</sup> December 2018, with the Office of the Basic Education Commission (OBEC) and the Institute for the Promotion of Teaching Science and Technology (IPST) to be responsible for the project as proposed by the Ministry of Education.

For the engineering manpower development project in Technology and Innovation, it is a project that is in accordance with Thailand 4.0 policy that supports investment and capacity enhancement of industrial sectors in the country and region. Especially the industry in the Eastern Economic Corridor (EEC) and the development of scientific manpower.

Especially the industry in the Eastern Economic Corridor (EEC) and the development of scientific manpower. Technology and Innovation providing knowledge and high potential will play an important role in helping the target industry groups, both the former and potential industries and future industrial also groups are important parts of driving the country with innovations that are new and creative.

The addition of quality personnel in the group of Engineers, Practical Engineers to meet the demand and also attracting foreign companies such Japan to invest in Thailand. as Therefore, the Thai government has entered into an agreement with the Japanese government on yen loan project. The Japanese government provides assistance and support in education and academic matters in order to achieve the project's objectives.





**The KOSEN-KMITL** is under the supervision of the Thai KOSEN project, which the minister is in charged as Board of Executive Committee, in order to operate in accordance with the agreement between the Thai government and the Japanese government.

operate the **KOSEN-KMITL** То in accordance with the Higher Education King Mongkut's role, Institute of Technology Ladkrabang, KMITL has established KOSEN-KMITL as a unit of KMITL under the supervision of the KOSEN-KMITL's Board of Management and is run by the Faculty of Engineering.

In addition to providing the academic operations of KOSEN-KMITL in accordance with the objectives approved by the Cabinet, KMITL has collaborated with NIT (National Institute of Technology), Japan for the preparation of the KOSEN-KMITL's curriculum and support the teaching and learning of the KOSEN style.

The curriculum must be in accordance with the MCC (Model Core Curriculum) which is the core curriculum of the KOSEN in Japan. To make ensure this school an equivalent with Japanese Kosen, NIT has dispatched group of academic а professors to demonstrate the KOSEN style education, to develop the curriculum, foster Thai KOSEN teachers to in mathematics, science, engineering, and to promote the Japanese KOSEN style school operation.

Not only them, the professors from Faculty of Engineering, Faculty of Liberal Arts and Faculty of Architecture in KMITL also support the teaching and learning so that the curriculum of KOSEN-KMITL meets the specified contents. In Addition, all students are supported by full scholarship.

## CURRICULUM ASSOCIATE COURSES

- Mechatronics Engineering (2019)
- Computer Engineering (2021)
- Electrical and Electronics
  Engineering (2023\*)

# **ADVANCED COURSE**

Production Engineering (2024\*)
 \*is scheduled



#### **Admission Policy**

#### Students should have following qualifications;

- 1) Those who are better for mathematics, science and English.
- 2) Those who are interested in making things and also being innovators / engineers involved in robotics/ mechatronics, computer engineering, and electrical & electronic engineering.
- 3) Those who want to challenge to create a new technology/ system.
- 4) Those who want to be global innovators/ engineers

#### **Diploma Policy**

#### Students learn to graduate with the following ability required

#### **General Education**

- 1) Wide knowledge on Science and Engineering and practical ability to apply them to solve problems in the society.
- 2) Enriched personality with wide range knowledge and understanding of history, culture and society of Thailand and love of nation.
- 3) Global awareness and communication ability with languages, English, Japanese, and Thai in order to cooperate with others.
- 4) Creativity to make a new value with fusing the knowledge from various fields.
- 5) As an engineer, attitude to act with awareness of social roles and responsibility to make a better society.



#### **Mechatronics Engineering**

- 1) Ability to design, propose and develop robotic / mechatronic systems to solve specific problems.
- 2) Ability to design, propose and develop electrical and electronic systems for robotics / mechatronic systems
- 3) Ability to design, propose and develop mechanical solutions / systems for robotic / mechatronic systems
- 4) Ability to design and develop the software for control robotic / mechatronic systems.
- 5) Ability to design, propose and develop network systems to control robotic / mechatronic systems.

#### **Computer Engineering**

- 1) Ability to operate and administer the computer software and hardware
- 2) Ability to understand the operating system and to develop software to solve specific problems.
- 3) Ability to design, propose and implement IoT (Internet of Things) systems and solutions.
- 4) Ability to understand the computer network system and security methods and to implement the safe system within networks, servers, computers, and connected devices.
- 5) Ability to apply the update technology (e.g., artificial intelligent (AI), Big data etc.) to build up computer system to support the development of society

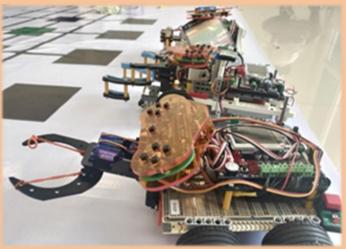
#### **Electrical and Electronic Engineering (is scheduled)**

- 1) Ability to design, propose and develop electrical and electronic systems to solve specific problems.
- 2) Ability to design, propose and develop smart electrical power systems for sustainable development.
- 3) Ability to design, propose and develop software to operate electrical and electronic systems.
- 4) Ability to design, propose and develop the intelligent systems connected to the network to realize the smart city and manufacturing.
- 5) Ability to design, propose and operate infrastructure for energy management.

# EXTRA CURRICULUM ACTIVITY

#### KOSEN-KMITL ENCOURAGES STUDENTS' challenge spirits





#### WORLD ROBOT GAMES 2019

#### 1<sup>st</sup> to 3<sup>rd</sup> August 2019

Just after 3 months from opening school, 6 teams participated to three categories of national competition of World Robot Games held on August 1-3, 2019. One of them. Mr. Narongsak Boonvut and Mr. Runn Kongkeatpanich won the 4<sup>th</sup> Runner-up. They were been invited by NIT to Japan to demonstrate their robot.



# KIBO Robot Programming Challenge

#### 16<sup>th</sup> June 2020

The International Space Station, KIBO ROBOT Programming Challenge, Worldwide competition the was organized by JAXA (Japan Aerospace Exploration Agency) cooperated with NASA all over the world. The national com-petition in THAI, which 151 teams participated, was held on June 16<sup>th</sup> One of our teams Mr.Kanok Sereepookkana, Mr.Runn Kongkeatpanich and Mr.Thanadorn Panyaso won the runnerup overtaking famous universities in THAILAND.







## THE 13<sup>th</sup> ANNUAL ENGLISH PRESENTATION

contest for students in college of technology

KOSEN-KMITL also foster the generic skills to enrich students' personality. Presentation is good opportunity to develop their thought related to society problem and communication skill.

There are several competitions for KOSEN students are held in Japan every year. This English presentation com-petition is one of the major competition in KOSEN. The 13<sup>th</sup> Competition was held in Tokyo on 25<sup>th</sup> and 26<sup>th</sup> January 2020.

Ms.Sanpluem Promwong and Mr.Pongsakorn Yingyongpaisankul, participated to this contest as a representative of KOSEN-KMITL. Ms.Sanpluem presented about how to interact with SNS efficiently and Mr.Pangsakorn presented about the teamworking in digital generations. Their presentations were very well received by the judges and audiences.









### Learn Japanese through fun events

# **KOSEN-KMITL**

#### supports the students' learning through many kind opportunities! MUST FUN!

Not only in Japanese language class, KOSEN-KMITL provides many events to study and experience Japanese culture.

In January 2020, we welcomed Dr. Nakajima of National Institute of Technology, Kushiro College and learned the calligraphy. For almost all the students, it was the first time to learn calligraphy, however it was very fun. They could write Japanese well.

What the students are most looking forward to is the Takoyaki Party. In this party, not only students but also teachers and staffs enjoyed Takoyaki made by students and staffs talking in Japanese language together.



# DORMITORY

The KOSEN-KMITL Dormitory exists for the following reasons:

- 1) Provide a quality housing and caring environment that promotes and support success and personal academic of residential students. All students have to live in the dormitory as a part of KOSEN-KMITL, we understand that these students are living away from their parents and living together with classmates. KOSEN-KMITL Dormitory has, therefore, taken it upon itself to ensure that the resident students receive support and guidance while living at the dormitory.
- 2) Enhance the residential students' personality and development by training them to be independent, responsible and respectful future leaders and innovators. At the dormitory, the students will be trained to look after themselves, to be responsible of their own schedules, and be considerate and respectful of other people living at the dormitory.

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- A. Bedrooms
- **B. WIFI**
- C. Closet
- D. Bath & Shower
- E. Swimming Pool







HM building, Faculty of Engineering (KMITL), 1 Chalong Krung Rd., Lat Krabang, Bangkok 10520, THAILAND





# WE ARE KOSEN-KMITL

