

## KMUTNB's iRap Robot Team Wins Championship at World Robocup Rescue 2024

### “Achieves 10-Time World Champion”

From 16 – 21 July 2024, the KMUTNB students' iRAP Robot team represented Thailand at the World RoboCup Rescue 2024 in Eindhoven, Netherlands. The team from KMUTNB won their 10<sup>th</sup> championship in this tournament. Moreover, they won two additional awards for their extraordinary performance, including the Best-in-Class Mobility and the Best-in-Class Dexterity categories.



Picture: Assoc. Prof. Dr. Kittichai Thanasupsin, Dean of the Faculty of Engineering (6<sup>th</sup> from left in the standing row), KMUTNB representative, receiving an award with the iRap Robot team.

This year's tournament was joined by 20 teams from 10 different countries, including Germany, Switzerland, Japan, France, China, Korea, Austria, Mexico, Bangladesh, and Thailand. Only six made it to the final round. The KMUTNB team received the highest score of 1,076 points for their iRap Robot, the Shinobi Squad from Japan, received 921 points, and Germany's Alert team with 825 points.

The long standing achievements of the KMUTNB students at the RoboCup Rescue Robot League have demonstrated their capability of developing robotic systems which are able to perform extremely hazardous tasks from safer stand-off distances. This league encouraged its participants to use their skills and energy to innovate robots that can both save life in hazardous environment and increase the safety of emergency responders. The iRAP Robot team is part of the Robot Student Club at KMUTNB, a leading science and technology university in Thailand.

The long standing achievements of the KMUTNB students

## KMUTNB Recognized in U.S. News Best Global Universities Ranking

KMUTNB achieved a notable recognition in the U.S. News Best Global Universities, an annual ranking of world universities by U.S. News & World Report, released on 25 June 2024. In 2024, KMUTNB was ranked at the 1,196 place among 2,250 universities worldwide.

Furthermore, KMUTNB was ranked among the 6 top best universities

*Continued P. 2*

**U.S. NEWS BEST GLOBAL UNIVERSITIES 2024 - 2025**  
KING MONGKUT'S UNIVERSITY OF TECHNOLOGY NORTH BANGKOK

Subject Ranking	
<b>2<sup>nd</sup></b> Material Science in Thailand 607 <sup>th</sup> in World	<b>3<sup>rd</sup></b> Engineering in Thailand 732 <sup>th</sup> in World
<b>3<sup>rd</sup></b> Mathematics in Thailand 145 <sup>th</sup> in World	<b>9<sup>th</sup></b> Chemistry in Thailand 1,039 <sup>th</sup> in World

**6<sup>th</sup>** in Thailand  
393<sup>th</sup> in Asia, 1,196<sup>th</sup> in World

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## Academic Cooperation

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in Thailand out of 12 universities appearing in the ranking. The U.S. News Best Global Universities also compiled the ranking based on subject categories, and KMUTNB won distinguished recognition in 4 disciplines as follows: the world top 607 and Thailand top 2 in Material Science, the world top 737 and Thailand top 3 in Engineering, the world top 145 and Thailand top 3 in Mathematics, the world top 1,039 and Thailand top 9 in Chemistry.

The ranking by Best Global Universities featured universities from over 100 countries based on various indicators, such as global and regional research reputation, publications, conferences, normalized citation impact, etc. This achievement reflects KMUTNB excellent performance exhibited through set of widely accepted indicators.

### The 5<sup>th</sup> Research, Invention, and Innovation Congress (RI<sup>2</sup>C 2024)



During 8-9 August 2024, the 5<sup>th</sup> Research, Invention, and Innovation Congress (RI<sup>2</sup>C2024) was co-organized by KMUTNB, ECTI, and the IEEE Thailand Section at the Grand Fortune Hotel, Bangkok. The opening ceremony was presided over by Prof. Dr. Somrerk Chandra-ambhorn, Vice President for Research and Information Technology Development. The conference featured keynote addresses by Mr.

Krisda Utamote, Director of Organization Communication at BMW (Thailand) Co., Ltd.; Mr. Chatchai Loybundit, Executive Vice President of Investment at BCPG Public Company Limited; and Prof. Dr. Vutipong Areekul from Kasetsart University. The event showcased over 140 research papers from both Thai and international researchers.

### International workshop on Systems and Computing Inspired by Nature (SCIN2024)



From 6-8 September 2024, the 3<sup>rd</sup> International Workshop on “Systems and Computing Inspired by Nature” (SCIN-2024) was held at ONPA Hotel and Residence, Chonburi Province. This annual workshop was co-organized by a team of lecturers from the Department of Information Technology, Faculty of Industrial Technology and Management, KMUTNB Prachinburi Campus, led by Assoc. Prof. Dr. Anirach

Mingkhwan, and Fern University in Hagen, Germany, under the leadership of Prof. Dr.-Ing. habil. Dr. h.c. Herwig Unger, Head of the Chair of Communication Networks. The workshop provided participants with an opportunity to explore the fascinating intersection of natural systems and computing technologies, focusing on bio-inspired computing, evolutionary algorithms, and other computational techniques inspired by nature.

### KMUTNB Researcher Won Gold Medal at JDIE 2024 in Kyoto, Japan



Asst. Prof. Dr. Mahasak Ketcham, a senior lecturer at the Faculty of Information Technology and Digital Innovation, KMUTNB, received recognition at the “Japan Design, Idea, and Invention Expo,” held in Japan from July 5–7, 2024. Organized by the World Invention Intellectual Property Associations (WIIPA) and Chizai Corporation, this prestigious event attracted over 400 submissions from 25 countries. Dr. Mahasak’s project, titled “Development of a Robotic Prototype for Muscle Pain Physiotherapy Using Artificial Intelligence and Games,” was awarded the Gold Medal, while his “Development of a Tactical Shooting Gallery Training System Using Virtual Reality” received the Silver Medal.

## Academic Cooperation

### MoU with University of Toyama, Japan

On 10 July 2024, at the Faculty of Engineering, KMUTNB, the MoU signing ceremony between KMUTNB and University of Toyama (UOT) took place. The event was attended by the executives from both sides led by Prof. Shigeru Saito, President of UOT and Prof. Dr.-Ing. habil. Suchart Siengchin, President of KMUTNB. This strategic partnership was a significant step towards fostering and enhancing academic collaboration between the two universities.



Picture from l-r: Assoc. Prof. Dr. Kittichai Thanasupsin (8<sup>th</sup>), Dean of Faculty of Engineering, KMUTNB, Prof. Dr.-Ing. habil. Suchart Siengchin (9<sup>th</sup>), President of KMUTNB, Prof. Dr. Shigeru Saito (10<sup>th</sup>), President of UOT and Prof. Dr. Noriyasu Oguma (11<sup>th</sup>), Dean of School of Engineering, UOT.

### MoU with Qingdao University of Science & Technology (QUST), China



Picture: Seated from left: Asst. Prof. Dr.-Ing. Sunantha Sodsee (1<sup>st</sup>), ITDI Dean and Prof. Du Junwei (2<sup>nd</sup>) Deputy Dean of Data Science College are signing the MoU. Standing, 3<sup>rd</sup> from left is Prof. Shen Wenqing, Deputy Secretary of the Party Committee is an honorary witness.

On 26 September 2024, Asst. Prof. Dr.-Ing. Sunantha Sodsee, Dean of the Faculty of Information Technology and Digital Innovation (ITDI), led a delegation from KMUTNB to visit and sign the MOU with Qingdao University of Science & Technology (QUST), China.

The KMUTNB delegation was warmly welcomed by Prof. Shen Wenqing, Deputy Secretary of the Party Committee, Prof. Chen Bing, Director of the International Office, and the QUST executive team. The signing of this MOU aimed to formalize the bilateral partnership and enhance the future cooperation between KMUTNB and QUST.

### Chairman of the Vietnamese-Korean University Council Visits KMUTNB



Picture from l-r of 1<sup>st</sup> row: Assoc. Prof. Dr. Nguyen Thanh Binh (1<sup>st</sup>), Chairman of the VKU University Council, Prof. Dr.-Ing. habil. Suchart Siengchin (2<sup>nd</sup>), KMUTNB President and Asst. Prof. Dr. Khridsadakhon Booddachan (3<sup>rd</sup>), Dean of Faculty of Industrial Technology and Management.

During 12-16 August 2024, a delegation from Vietnam-Korea University of Information and Communication Technology (VKU), led by Assoc. Prof. Dr. Nguyen Thanh Binh, Chairman of the University Council Committee, visited KMUTNB Prachinburi and Bangkok campuses. During their visit to the Prachinburi Campus, they held meetings with campus executives to discuss ongoing cooperation efforts. In Bangkok, the delegation visited KMUTNB Techno Park and paid a courtesy call to Prof. Dr.-Ing. habil. Suchart Siengchin, President of KMUTNB.

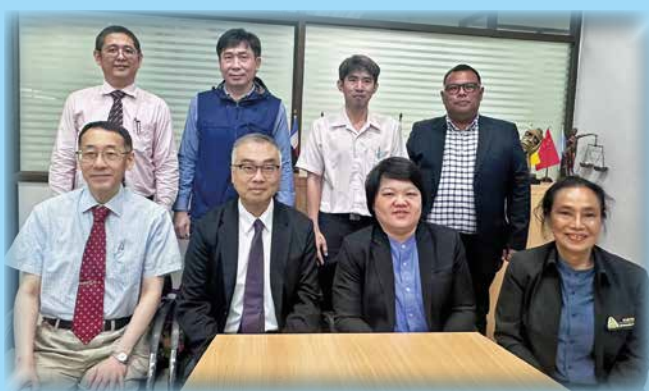
## Academic Cooperation

### Singapore Polytechnic, Singapore



From 23-27 September 2024, Asst. Prof. Dr. Peerapong Pornwongthong, Assistant to the President for Innovation, Research, and Development (3<sup>rd</sup> from l-r), led a team of four KMUTNB representatives to participate in the ILF Common Programme (Leaders), which was organized to broaden LeX Leaders' Networking. Additionally, the five KMUTNB delegates attended the International Learning Festival (ILF) – Learning Express (LeX) Programme 2024 and the Design Thinking Training for LeX Facilitators. KMUTNB and SP have co-hosted the LeX Program for students

### Chang Gung University (CGU), Taiwan



On 22 August 2024, delegates from Chang Gung University (CGU), Taiwan, including Prof. Ruey-Dar Chang (1<sup>st</sup> from left, seated), Chair of the Department of Electronics Engineering, and Prof. Shao-Ku Kao (2<sup>nd</sup>, seated), Associate Dean of the College of Engineering, visited KMUTNB. They were warmly welcomed by Prof. Dr. Saowanit Sukparungsee (3<sup>rd</sup>, seated), Vice President for Academic Affairs, and Ms. Sikan Kulchonchan (4<sup>th</sup>, seated), Vice President for International Affairs. The CGU delegates engaged in fruitful discussions with representatives from the Department of Electrical and Computer Engineering, Faculty of Engineering, led by Asst. Prof. Dr. Noppadol Charbkaew (1<sup>st</sup> from left, standing) and his colleagues, to explore potential future cooperation.

### National Kaohsiung University of Science and Technology (NKUST), Taiwan



On 2 August 2024, Ms. Phimvalanch Moosikaphan (3<sup>rd</sup> from left), Director of the International Cooperation Centre, led a KMUTNB delegation to visit the National Kaohsiung University of Science and Technology (NKUST). They were warmly welcomed by Prof. Dr. Wen-Jui Tseng (2<sup>nd</sup> from left), Dean of the Office of International Affairs. The KMUTNB delegation attended a meeting with NKUST executives to discuss potential collaborations aimed at enhancing academic cooperation between the two institutions.

### VKU Students' Internship at KMUTNB Prachinburi Campus



From 1 July to 31 August 2024, five selected students from the Vietnam-Korea University of Information and Communication Technology, University of Danang (VKU), participated in an internship at the Faculty of Industrial Technology and Management, KMUTNB Prachinburi Campus. During their internship, they also visited KMUTNB's Bangkok campus, with a special focus on the College of Industrial Technology. This internship program provided the students with a unique opportunity to engage in an advanced learning and research environment.

## Academic Cooperation

### Visit by Delegates from 10 Taiwanese Semiconductor Companies



On 13 August 2024, Assoc. Prof. Dr. Surapun Yimman (5<sup>th</sup> from left, seated), Vice President for Industrial Promotion and Business Studies Development, led the executives of the Faculty of Applied Science, including Assoc. Prof. Dr. Pianpool Kamoljittiprapa (4<sup>th</sup> from left, seated),

Dean of the Faculty of Applied Science, in a meeting to explore potential future cooperation with delegations from 10 Taiwanese companies specializing in semiconductors, one of the key areas of expertise within the Faculty of Applied Science, KMUTNB. This visit was arranged by the Taipei Economic and Cultural Office in Thailand.

### Ming Chi University of Technology (MCUT), Taiwan



KMUTNB and Ming Chi University of Technology (MCUT) have continually strengthened academic ties through cooperative activities. During 1 – 10 August 2024, the selected three KMUTNB students from Faculty of Engineering, Faculty of Information Technology and Digital Innovation and Faculty of Business and Industrial Development, participated the 2024 MCUT Language and Culture Experience

Summer Camp, which aimed at promoting cross-cultural competence and understanding in Taiwanese culture.

On 10 September 2024, the Faculty of Business and Industrial Development (BID) hosted a special online lecture by Dr. Jou-Rong Chen, the Director of the International Master Program of Business Administration.

### Vietnam-Korea University of Information and Communication Technology (VKU)



On 26 - 27 September 2024, Dr. Yuenyong Nilsiam, a lecturer from the Department of Electrical and Computer Engineering, Faculty of Engineering, was a representative from KMUTNB as a keynote speaker on the topic 'Fintech Development in the Digital World' at the Workshop on Fintech Workforce Development and Training, held at the Vietnam-Korea University of Information and Communication Technology, (VKU), Vietnam.

### The International Institute of Welding (IIW)



From July 7–12, 2024, the International Institute of Welding (IIW) held its 77<sup>th</sup> Annual Assembly and International Conference in Greece. Asst. Prof. Dr. Panarit Sethakul (2<sup>nd</sup> from left), Acting CEO of the Welding Institute of Thailand (WIT), participated in key committee meetings, including the IAB General Assembly (IAB-GA), IAB Governing Board (IAB-GB), IAB Members Meeting (IAB-MM), and Commission XIV (Education and Training). During the event, Asst. Prof. Dr. Panarit was honored with the IIW Attendance Recognition Award, presented by Dr. Luca Costa (1<sup>st</sup> from left), IIW Chief Executive Officer, in recognition of his longstanding contributions to the institute.

## Campus News

### KMUTNB-KYUTECH Collaboration Satellite Office

Since the opening of KMUTNB-Kyutech Collaboration Satellite Office at Faculty of Engineering on 19 February 2024, this space has continually served as a venue to host several cooperative activities that contribute to strengthen and enhance the close and meaningful partnership between both institutions.



From August 15 to September 24, 2024, two Master's students, Mr. Hibiki Fujishima and Mr. Yuuki Ohta, from the Nanoscale Optics Laboratory under the supervision of Assoc. Prof. Dr. Panart Khajornrungruang, Graduate School of Computer Science and Systems Engineering, Kyushu Institute of Technology, Iizuka campus, Japan, participated in an exchange program at the Faculty of Engineering, KMUTNB. Their research on topic "Observation of Micro/Nanoscale Phenomena in Realtime Using an Optical Systems for Precision Engineering" conducted at the Advanced Precision Laboratory under the supervision of Dr. Aran Blattler, Director of the Robotic Engineering and Automation System Program.



Recently, two student exchange programs took place at the KMUTNB-Kyutech Collaboration Satellite Office. In the left picture, on September 6, 2024, KMUTNB hosted the KMUTNB-KYUTECH Cultural Exchange Program for a group of 13 students. The Kyutech students were warmly welcomed by Assoc. Prof. Dr. Kittichai Thanasupsin, Dean of the Faculty of Engineering, and Asst. Prof. Dr. Tanaporn Rojhirunsakool, Assistant Dean for International Affairs and Public Relations. In the right picture, from September 24–30, 2024, the PBL (Project-Based Learning) was held for 10 Kyutech students by the Production & Robotics Engineering Department, Faculty of Engineering. During this program, Kyutech students also experienced Thai culture by learning basic Thai language, cooking, and visiting notable areas around Bangkok.



### Congratulations !

The two former students from the Department of Production & Robotics Engineering, Faculty of Engineering, KMUTNB, graduated from Kyutech with a master's degree in Computer Science and System Engineering. After graduating from KMUTNB in 2022, due to the close cooperation between the two institutions, both students continued their study at Kyutech with the sponsorship by the MEXT scholarship program.

## Campus News

### KMUTNB Inter-Culture Program 2024



During 11 – 13 September 2024, KMUTNB hosted the 2024 Inter-Culture Program for over 70 new international students from 20 countries. The main part of the program was held at KMUTNB Rayong Campus, where they engaged in cultural exchange activities and a laboratory and facility tour at Faculty of Business Administration, Faculty of Science, Energy and Environment and Faculty of Engineering and Technology. Since KMUTNB is a large community of international and local students, this program aimed to provide a unique opportunity for the students to become immersed in Thai culture and enhance their cross-cultural competence through doing activities with their fellow international and Thai students.

### National Formosa University, Taiwan



From 29 July 2024 to 5 August 2024, a group of 22 selected students from KMUTNB Rayong Campus and Bangkok Campus participated in the 2024 Forward Together: NFU-KMUTNB Research Partnership and Cross-Cultural Exchange Part 2 at National Formosa University (NFU), Taiwan. This program was the continuing part of the first phase of the program which was held at KMUTNB Rayong Campus from 2 – 9 April

2024. The opening ceremony was co-presided by Prof. Dr. Shinn-Liang Chang, President of NFU, and Asst. Prof. Dr. Jakkrawut Maitip, Assistant Dean for Industrial Liaison and International Affairs, Faculty of Science, Energy and Environment. This program focused on research workshop on seven topics, such as Metallographic Analysis, Lean Manufacturing and Smart Manufacturing Carbon Footprint Verification, etc. Besides, the participants immersed into the Taiwanese culture through various cultural exchange activities.

### KMUTNB Students Join Halla International Pioneer Program 2024, Korea



During 27 June – 19 July 2024, the 5 selected KMUTNB students attended the 2024 HIP Halla International Pioneer Program, hosted by Halla University to commemorate its 30<sup>th</sup> founding anniversary. This program provided a wide range of activities designed to enhance the participants's learning and problem-solving abilities. They also gained valuable insights into Korean language, culture, economy, and technology. Since KMUTNB and Halla University signed the first MoU in 2012, the two universities have developed a close and

fruitful cooperation, especially in the area of student mobility. For over many years, KMUTNB annually hosted the International Capstone Design Project for the students of Halla University.

## TGGS

### Nanjing University of Aeronautics and Astronautics (NUAA)



From left to right in the first row: Assoc. Prof. Dr. Peerawatt Nunthavarawong (3<sup>rd</sup>), TGGS Assistant Dean for Research and Industry Relations; Prof. Dr. Somrerk Chandra-ambhorn (4<sup>th</sup>), KMUTNB Vice President; Prof. Dr.-Ing. habil. Suchart Siengchin (5<sup>th</sup>), KMUTNB President; and Prof. Dr. HUANG Zhiqiu (6<sup>th</sup>), NUAA Vice President.



At the opening ceremony of STRIC (from left to right): Dr. Somrerk Chandra-ambhorn, KMUTNB Vice President (1<sup>st</sup>); Prof. Dr.-Ing. habil. Suchart Siengchin, KMUTNB President (2<sup>nd</sup>); Prof. Dr. Teravuti Boonyasopon, Chairman of KMUTNB Council (3<sup>rd</sup>); Prof. Dr. HUANG Zhiqiu, NUAA Vice President (4<sup>th</sup>); and Prof. Dr.-Ing. Nisai Fuengwarodsakul, TGGS Dean (5<sup>th</sup>).

On July 9, 2024, the signing ceremony of the Memorandum of Agreement (MoA) between King Mongkut's University of Technology North Bangkok (KMUTNB) and Nanjing University of Aeronautics and Astronautics (NUAA), China, was presided over by Prof. Dr.-Ing. habil. Suchart Siengchin, President of KMUTNB. Prof. Dr. HUANG Zhiqiu, Vice President of NUAA, and Prof. Dr. Somrerk Chandra-ambhorn, Vice President of KMUTNB, signed the agreement on behalf of their respective universities. This MoA aims to strengthen bilateral cooperation through the establishment of an International Joint Laboratory on Advanced Manufacturing at TGGS.

In the afternoon, the opening ceremony of the Sino-Thai Joint Research and Innovation Center (STRIC) was held on the 5<sup>th</sup> floor of the TGGS Building, with Prof. Dr. Teravuti Boonyasopon, Chairman of the KMUTNB Council, as an honored witness. STRIC is dedicated to collaborative research in advanced manufacturing, with a focus on surface engineering. Since 2023, TGGS and NUAA have enjoyed a productive partnership under an existing Memorandum of Understanding (MoU), which has yielded significant outcomes. The launch of STRIC marks a major milestone in KMUTNB and NUAA's collaborative efforts and demonstrates their shared commitment to advancing technologies in the automotive and aerospace industries.

### Congratulations to a TGGS Alumni's Contribution to Sustainability !

Ms. Michelle Limantara, a sustainability and product development manager at PT Impack Pratama Industri Tbk in Indonesia, participated in the SDG Alumni Project, focusing on green technologies. Her company successfully implements technologies to reduce food waste and improve food security. Having awarded a full scholarship from DAAD to study at KMUTNB and spent her second-year conducting research at RWTH Aachen University in Germany, Michelle Limantara graduated from TGGS with a master's degree in materials and production engineering.



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