KMUTNB & Royal Thai Army’s Prototype Development of EOD Robots

Standing of front row from l-r: Prof. Dr. Teravuti Boonyasopon (5th), KMUTNB President, Prof. Dr. Suthipun Jitpimolmard, TRF Director (6th) and the Deputy Commander in Chief, Maj. Gen. Vichai Phonusit (7th), Ordnance Department take a group picture among KMUTNB research team and students at ceremony of handing over prototypes EOD Robot.

On 28th August 2014, Prof. Dr. Teravuti Boonyasopon, KMUTNB President and Prof. Dr. Suthipun Jitpimolmard, the Director of the Thai Research Fund (TRF) handed over the 3 prototypes of EOD Robot (Explosive Ordnance Disposal Robot) to the Deputy Commander in Chief, Maj. Gen. Vichai Phonusit, who is the authorized representative of Royal Thai Army Ordnance Department, Ministry of Defence at the hall of Ordnance’s Office, Thannon Nakhon Chai Si Bangkok.

3 Institutes: KMUTNB, TRF and Royal Thai Army Ordnance Department are researching and developing prototypes of EOD Robot together. KMUTNB student teams won six-time world RoboCup Rescue Champions.

KMUTNB Student Won First Place in IDC RoboCon 2014, Morocco

Mr. Jesda Mindang, KMUTNB’s student from the Department of Mechanical and Aerospace Engineering, Faculty of Engineering took part in the Red Team of IDC RoboCon 2014 which won first place in this tournament.

The 25th edition of IDC- Robocon (International Design Contest) was held at the University Mohammed V –Agdal, Rabat, Morocco from 13th to 26th July 2014. The competition gather students representative of universities from different countries during two weeks to share their lives, culture, passion for robotics and scientific and technological knowledge acquired in high school and university.

This year multi-national teams of students competed in various tasks assigned to design best robot in featured theme “The Great Harvest”. The final contest allowed to select the most successful team which was secured by the Red Team.
MID-Technology Seminar

On 14th August 2014, The MID-Technology Advantages for the Thai Automotive, Electronic and Medical and Plastic Industry Seminar was held at Center of Innovation in Design and Engineering for Manufacturing, Science and Technology Research Institute, KMUTNB. The seminar provided insights of MID information to the Thai industry. MID experts expounded the process of the technology. Four experts as Dipl.-Ing (FH) Thomas Mann, Plexpert GmbH, Germany; Dipl.-Ing. Robert Süß-Wolf Institute for Factory Automation and Production Systems (FAPS), Friedrich-Alexander University Erlangen-Nuremberg, Germany; Dipl.-Wirtsch.-Ing (FH) Timo Kordass, FAPS and Dr.-Ing. Patcharee Larpsuriyakul, Researcher, Polymer Research Unit National Metal and Materials Technology Center (MTEC), Thailand lectures covered extensive subject with a big variety of examples from all over the world from various industries such as: automotive, medical, electronic and plastic industry. Attendants saw how they can benefit from MID and get ideas for new projects and products and new development.

International Seminar Micro-Nano Technologies for Chemical Processes

International Seminar Micro-Nano Technologies for Chemical Processes was held on 5th September 2014, at Science and Technology Research Institute, KMUTNB. The seminar was organized by KMUTNB and Oregon State University, USA. Three keynote speakers from School of Chemical, Environmental and Biological Engineering (CBEE), Oregon State University as: Prof. Dr. Goran N. Jovanovic, Assoc. Prof. Alexandre Yokochi, and Asst. Prof. Liney Arnadóttir which investigated on chemical process technologies; molecular modeling and novel micro – nano – scale based electrochemical reactors to 80 audiences.

Picture on the Left: Main conference; Picture on the Right: group picture from left to right: Assoc. Prof. Dr. -Ing. Suchart Siengchin (2nd ), Vice President for Research and Academic Enhancement, KMUTNB, Dr.-Ing. Patcharee Larpsuriyakul (5th ) MTEC Researcher, Mr. Thomas Mann (6th ), Plexpert GmbH, Germany; Prof. Dr. Teravuti Boonyasapon (7th ), KMUTNB President ; Mr. Timo Kordass (8th ), FAPS; Mr. Robert Süß-Wolf (9th ), FAPS and Prof. Dr.-Ing Fritz Hartung (10th ), KMUTNB Expert.

Picture on the Left: Main conference; Picture on the Right: group picture from left to right: Asst. Prof. Dr. Unalome Wetwatana (1st ), Co-ordinator of the TGGS Program in Chemical and Process Engineering, Assoc. Prof. Dr. Surin Laosooksatit (3rd), Dean of faculty of Applied Science; Assoc. Prof. Dr.-Ing. Suchart Siengchin (4th), Vice President for Research and Academic Enhancement; Assoc. Prof. Dr. Alexandre Yokochi (5th ); Prof. Dr. Goran Jovanovic (6th ); Asst. Prof. Dr. Liney Arnadóttir (7th ), and Assoc. Prof. Dr. Phavanee Narataruksa (11th ), Deputy Director for Research Development and Industrial Relations.
Academic Cooperation

Technische Universität Chemnitz, Germany

Extending Cooperation in Logistics Engineering:
Assoc. Prof. Dr. Viboon Chunkage (4th from left), Dean of Faculty of Engineering led his team in the field of Materials Handling and Logistics Engineering to visit Technische Universität Chemnitz for exploring academic collaboration and academic discussion in the field of Logistics during 17th - 23rd June 2014.

Dr. Eberhard Alles, Chancellor (1st from left) welcomed and had fruitful discussion with the team.

Rosenheim UAS, Germany

Follow up Advanced Cooperation:
On 27th August 2014, Prof. Dr.-Ing. Egon Müller (3rd from left), head department of Factory Planning and Factory Management, Technische Universität Chemnitz visited department of Materials Handling and Logistics Engineering, Faculty of Engineering. Assoc. Prof. Dr. Viboon Chungkag (4th) and Assoc. Prof. Anucha Hirunwat (1st), Head of the Department and his team discussed future cooperation and had short tour around laboratory to observe facilities.

From l-r: After the meeting, Prof. Heinrich Köster, President of Rosenheim University of Applied Sciences (4th from left) presents a token to Asst. Prof. Dr. Anirach Mingkhwan, Dean of the Faculty of Industrial Technology and Management, KMUTNB and Prof. Dr. Werner Braatz, CEO International Affairs of Rosenheim University of Applied Sciences (8th from left).

Joint Co - Research between Rosenheim University of Applied Sciences and KMUTNB, Faculty of Industrial Technology and Management (FITM), during July – August 2014.

For 45 days 3 of lecturer-researchers and 1 undergrad student collaborated and gave their expertise in green building design, energy – efficiency building technology, architectural and interior design.

In addition they discussed and evaluated the architectural and interior design of the prototypes that made of Adobe and Bamboo by means of the applications possibilities found; concluded all the prospective between Thai green building rafting system and those in Germany and compared them through the technical paper with KMUTNB’s researches and students.

The project under signed MoU on 31st January 2014, initiated friendly ties and strengthened further collaborations.
Students’ Kyushu Institute of Technology workshop at KMUTNB

During 18th - 26th September 2014, Group of 2 professors: Assoc. Prof. Masaki Fuchiwaki, Asst. Prof. Dr. Panart Khajornrungruang with 6 undergraduate students and 2 Master students from Kyushu Institute of Technology (KIT) visited KMUTNB. They participated the Robot workshop at robotic laboratory, Faculty of Engineering. Students from both institutes shared and exchanged their knowledge and experience. They also visited a few factories and went to sightseeing of Bangkok.

Two institutes have continually created academic activities for their students and staff on each semester since MOU was signed to increase awareness and the importance of globalization.

KOSEN, Japan

Since September 2013, KMUTNB and KOSEN signed MOU, the co-ordinators have lavishly created academic activities to their students and staff on each semester. Dr. Prasertsak Tiawongsombat, KMUTNB lecturer was selected to join International Exchange Coordinator program by KOSEN’s Management Committee.

During 14th -27th July, he joined activities with Kasoshima National College of Technology and Ariake National College of Technology together with 5 students of the College of Industrial Technology, KMUTNB currently doing their internship. The program provided valued schedule where Dr. Prasertsak Tiawongsombat learnt and shared experience with representatives from both the colleges.

Aalen University, Germany

Mr. Tobias Gutekunst, a student of Department of Polymer Technology, Aalen University, Germany has been on internship since 15th September 2014 at Department of Materials and Production Technology Engineering, Sirindhorn International Thai-German Graduate School of Engineering, KMUTNB and will continue until 28th February 2015.

Internship is focused on research of 3D - Molded Interconnected Devices (MID), supervised by Assoc. Prof. Dr.-Ing. Suchart Siengchin, Vice President for Research and Academic Enhancement (top-right of corner).
Esslingen University of Applied Sciences, Germany

KMUTNB continues fruitful cooperation with German universities tied by MoU. Group of four students: Mr. Dennis Bahr, Mr. Stefan Eisenmann, Mr. Marc Hönig, Mr. Florian Döner from Esslingen University of Applied Sciences, Germany undertook the internship during 1st -30th September 2014, at Division of Mechatronic Engineering Technology, Department of Mechanical Engineering Technology, College of Industrial Technology. Their research focuses on designing Solidwork 2D/3D drawing and animation of automation systems. As the next step they join practical training at Western Digital (Thailand) Co., Ltd. for five months to get industrial experience.

Technical University of Liberec, Czech Republic

Scientific Research Internship at TGGS: two Ph. D. Students from Technical University of Liberec, Czech Republic, Mr Martin Boruvka and Mr. Jan Vácha have joined research with Natural Composite Research Group at Department of Materials and Production Technology Engineering, Sirindhorn International Thai-German Graduate School of Engineering, KMUTNB from 3rd September 2014 until 31st January 2015. Their internship aim on researching in the fields of “Bio-composites reinforced by Cellulose Fibers” and “Influence of carbon nanotubes on thermoplastic polymer matrices” under supervision of Assoc. Prof. Dr.-Ing. Suchart Siengchin, Lecturer and Researcher of TGGS and Vice President for Research and Academic Enhancement.

Rubber Valley Group Co., Ltd., China

Since 2013, Rubber Valley Group Co., Ltd., Qingdao University of Science and Technology and KMUTNB signed MOU, representatives of 3 institutes have met to make advanced cooperation in the area of Rubber between China and Thailand. According to the company’s ambitions is to be a rubber trade center of the world.

On 5th September 2014, Mr. Zhang Yan, CEO of Rubber Valley Group Co., Ltd., and his team had a meeting with Prof. Dr. Teravuti Boonyasopon, KMUTNB President and KMUTNB Administration to discuss the plan of human resource development in rubber industry in Thailand, because the company is extending rubber product base at Rayong Province, Thailand, where is located KMUTNB, Rayong Campus.
On 12th September 2014, Assoc. Prof. Dr. Surapun Yimman, Head Department of Industrial Physics and Medical Instrumentation, Faculty of Applied Science invited Prof. Dr. Keiji Iramina, Dean of Graduate School of Systems of Life Sciences, Kyushu University from Japan, to visit his department.

The Biomedical Engineering is a new program, Prof. Dr. Keiji Iramina as an expert in the field exchanges his knowledge and cooperates with the department.

Prof. Iramina shared his experience with Assoc. Prof. Dr. Yimman and his team which had a fruitful discussions and visited labs and facilities, Medical Robotic & Biomedical Engineering Center at Science and Technology Research Institute, KMUTNB.

**Thai-Lao PDR Human Resource Development, KMUTNB**

During 15th -19th September 2014, 6 experts from Thai-German Dual Education and e-Learning Development Institute (TGDE), KMUTNB visited Lao PDR to give special training in the topic of “The preparation and usage of electronic media and television editing room” at Research Institute for Science and Education of Lao PDR. Program focused on development of the staff to have more experience in the electronic media, television editing room and gain more skills in creating learning aid and lecturing through media, and television editing program. The project was collaborated with Thailand International Development Cooperation Agency (TICA), Ministry of Foreign Affairs.
Inter-Culture 2014

During 14th – 16th August 2014, group of 30 new and senior international students of KMUTNB joined together for the Inter-Culture 2014 program organized by International Cooperation Centre (ICC). As main objectives are similar to orientation, new students were informed about university regulations, shared experience about studying at KMUTNB with senior students and also were introduced to Thai culture and language.

On the first day, group visited Grand Palace and Emerald Buddha temple. The next two days, group visited Prachinburi campus where joined activities prepared by local students. Program included fun games and cultural exchange; majority of international students come from ASEAN countries such as Vietnam, Cambodia, Myanmar, and Indonesia which was great introduction to ASEAN Community and opportunity to discuss and share their culture. This is a good chance for students to make new friends and have a wonderful start of academic life.

Group Picture at Prachinburi Campus: International Students and local students of KMUTNB at Prachinburi Campus joined activities together on 14th - 16th August 2014.

KMUTNB’s students at the 5th University Leadership Symposium in Cambodia

The winners of KMUTNB Idol from 2013 and 2014: Ms. Panisa Yensung and Mr. Thanasan Prasongkit participated in the 5th University Leadership Symposium in Cambodia. The students had opportunity to join world class seminar and exchange ideas for solving social problems with international students from more than 50 countries.

The 5th University Scholars Leadership Symposium was held in Phnom Penh, Cambodia, from August 1st to 7th, 2014. The theme for this year was: “Dream It. Plan It. Do It”. The “Leadership in Social Change Symposium” was specially designed to provide the next generation of leaders with an understanding of key humanitarian issues; to equip them with essential life skills; to inspire them through motivational talks, to involve them in sustainable activities and to allow them to learn through experiential service programs.
TOYOTA-TGGS Vehicle Safety Technical Seminar

On 8th August 2014, The Sirindhorn International Thai-German Graduate School of Engineering (TGGS) hosted seminar on “Vehicle Safety” with the cooperation of Toyota Motor Thailand Co., Ltd., which aimed to promote safety knowledge and awareness to the public.

The seminar included a talk by Mr. S. Kuzumaki, the Chief Safety Technology Officer from Toyota Motor Corporation, Japan and two keynote speakers from TGGS: Assoc. Prof. Dr. Saiprasit Koetniyom, Head of Department of Mechanical and Process Engineering; Assoc. Prof. Dr. Julaluk, Lecturer and Researcher from Automotive Engineering, Mechanical and Process Engineering Department.

Toyota also donated the new Corolla Altis Vehicle Safety Demonstration Structure to KMUTNB for students and public in order to study the crashworthiness design of the structure.

Toyota Motor Thailand Co., Ltd. (TMT) through its determination to conduct business in Thailand since 1962 and has achieved the status of the country’s most widely accepted auto-mobile manufacturer as well as being the core leader of worldwide production.

Delegation from Kyowa Electronic Instruments, Japan

On 8th July 2014, Mr. Yoshio Hoshi (4th from left), the President of Kyowa Electronic Instruments and team from Japan visited TGGS for Academic Affairs Cooperation. The group was warmly welcomed by Prof. Dr. Prayoot Akkaraekthalin (5th from left), TGGS Dean, and Assoc. Prof. Dr. Saiprasit Koetniyom (6th from left), Coordinator of the TGGS Program in Automotive Engineering and discussed the future academic cooperation.

Block Lecture, RWTH Aachen

Prof. Dr.-Ing. Dirk Heberling, Director, Institute for High Frequency Technology, RWTH Aachen University, Germany delivered Engineering Block Lectures on “Antenna Engineering” at TGGS, from 30th September to 8th October 2014.