KU-Sriracha International Forum 2021

"EEC-University-Industry Networks in Digital Platform Innovation"

November 26th,2021

KASETSART UNIVERSITY

SRIRACHA CAMPUS

KU-Sriracha International Forum 2021

EEC-University-Industry Networks in Digital Platform Innovation

26th November 2021

Organized by

Faculty of Engineering at Sriracha

Kasetsart University Sriracha Campus

Objectives of the forum: The intention of the KU International Forum (KU-Forum) is to set up a platform for industries, academics and professional practitioners, both international and national that specialize in specific disciplines, for exchanging knowledge, research, innovation and discussions of new business opportunities. In this year, the forum is focusing on the collaborations of EEC, University, and Industry to support new economic growth through digital platform innovation. The key technical sessions include: 1) the Healthcare Industry, 2) Next-generation Vehicles, 3) AI-Digital, AgriTech, and Electronics, and 4) Robotics.

CONTENT

Opening Speech

Dr. Chongrak Wachrinrat
President, Kasetsart University

Today, I am honored to be the chairman of the opening ceremony of the KU-Sriracha International Forum 2021 which is organized by The Faculty of Engineering at Sriracha, Kasetsart University Sriracha Campus.

Due to the pandemic situation of Coronavirus that is spreading widely, affecting many people worldwide which make us aware of safety that is the reason to organize online format.

Our ultimate goal is to make strong association between Kasetsart University with both domestic and international organizations. We all want to accomplish this in ways that are safe, efficient, and sustainable. Finding sustainable development solutions is not only a long-term goal, but also an immediate goal that we have to accomplish.

It is appropriate that the KU-Sriracha International forum 2021 will address this topic that is important to all of us: " EEC-University-Industry Networks in Digital Platform Innovation." This is particularly appropriate for the Kasetsart University Sriracha campus, which located within the nation's Eastern Economic Corridor, and has expertise in knowledge, research and innovation.

We hope that all of you who attend this forum, benefit from the expertise and comments of the keynote speakers. I am confident that this forum today will inspire everyone to embrace new ideas, take part in
the exchange of knowledge, as well as having opportunities to build networks between academics and professional practitioners.

The opening of the KU-Sriracha International Forum 2021 under the topic " EEC-University-Industry Networks in Digital Platform Innovation" is hereby completed.

I wish all of participants good health and safety from pandemic situation of Coronavirus

Thank you very much.

Welcome Speech

Asst.Prof.Dr. Seri Koonjaenak
Vice President
Kasetsart University, Sriracha Campus

On behalf of Kasetsart University Sriracha Campus, which is hosting the KU-Sriracha International Forum 2021, I would like to welcome all of you to the online forum, which is being broadcast on Zoom Meeting, YouTube, Facebook live, and KU live channel.Today's topic is "EEC-University-Industry Networks in Digital Platform Innovation". Thank you for participating.

The conference has been organized to provide a forum for all of us to share ideas and to work together. We need to generate industry network in digital platform innovation collaboration for long-term development. There are many important facets involved, including the exchanging knowledge, research, innovation and discussions of new business opportunities.

Today's issues also focus on getting to know the direction for building collaboration with industry, academics and professional practitioners, both international and national, especially here in the eastern region of Thailand. Our hope is that the Thai industry, will soon flourish, even in this era of a global crisis and far into the future continue with safe and stable growth.

I would like to thank all the keynote speakers, the administrators who helped to arrange this forum, and all of you who are listening to this KU-Sriracha International Forum 2021 EEC-University-Industry Networks in Digital Platform Innovation. Thank you for participating online. We do hope that sometime soon we can meet you in person on our beautiful campus.

Thank you very much. Let's proceed with the conference.

Report on the Objectives

By Assoc. Prof. Sathaporn Chuepeng
Dean of Faculty of Engineering at Sriracha
Kasetsart University Sriracha Campus

Thank you all for joining us today. We are pleased to welcome you to the KU-Sriracha International Forum 2021, "EEC-University-Industry Networks in Digital Platform Innovation. We are extremely honored to host such a prestigious event using virtual platforms, mainly Zoom Webinar, as well as other channels such as YouTube and Facebook Live channel.

Driving the sustainable economy and social development of Thailand requires serious collaboration from all sectors, including educational institute, industry, and policy promotion sector. Kasetsart University, Sriracha Campus is located at the heart of the Eastern Economic Corridor (EEC), and we provide specialists in various fields such as automation and robotics, electrical vehicles, and AI working collaboratively with other institutions and industries to support the EEC targeted S-curve industries. This is so we can all move forward together in mutually beneficial partnerships and provide great help to our local communities and stakeholders.

Therefore, this year, the intention of the KU International Forum (KU-Forum) is to set up a platform for industries, academics and professional practitioners, both international and national that specialize in specific disciplines, for exchanging knowledge, research, innovation and discussions of new business opportunities. The forum is focusing on collaborations between the EEC, the university, and industry to support new economic growth through digital platform innovation. As a result, the key technical sessions are also related to the EEC's targeted S-curve, and they include:

1) The Healthcare Industry,
2) Next-generation Vehicles,
3) AI-Digital, AgriTech, and Electronics, and
4) Robotics

So, there is much to consider and much to discuss. I believe that this KU-Sriracha International Forum 2021, will make progress towards concrete agreements on future collaboration and networking especially in digital platform innovation. I hope that you will all benefit from the interesting topics that we have planned and that many exciting discussions will take place during this stimulating event.

Thank you.

KU-Sriracha International Forum 2021

EEC-University-Industry Networks in Digital Platform Innovation

26th November 2021

Kasetsart University Sriracha Campus

Chonburi, Thailand

Organized by

Faculty of Engineering at Sriracha

Kasetsart University Sriracha Campus

FRIDAY 26th November **Venue: ZOOM Webinars (Link: Via Personal Email)**	
08:30 - 09:00	**Registration**
09:00 - 09:30	**Report on the objectives of KU-Sriracha International Forum 2021:** MC: Asst.Prof.Dr. Jiraporn Pradabwong **Assoc.Prof.Dr. Sathaporn Chuepeng**, Dean of Faculty of Engineering at Sriracha, Kasetsart University Sriracha Campus **Welcome Remarks:** **Assist.Prof.Dr. Seri Koonjaenak**, Vice President for Sriracha Campus, Kasetsart University **Congratulatory Speech and Special Keynote Address:** **Dr. Wanwiwat Ketsawa**, Deputy Director, Corporate Strategy Division EEC Office of Thailand (EECO) Topic: EEC Strategy for Driving the Future of Thailand's Sustainable Development
09:30 - 09:40	**Opening Ceremony:** **Dr. Chongrak Wachrinrat**, President, Kasetsart University
09:40 - 09:45	**Group Photos**
09:45 - 11:05	**Session 1: Perspectives of Futuristic Opportunities in the Healthcare Industry** Session Chairs: Assoc.Prof.Dr. Nattapon Chantarapanich Mr. Prasitthichai Naronglerdrit Invited Keynote 1: **Mr. Boonlert Chodchoy**, President Thai Tool and Die Industry Association, Vice President Medical and Health Device Manufacturers Industry Club, The Federation of Thai Industries, and Committee The Federation of Thai Industries Chachoengsao Chapter Topic: Future of Manpower for Healthcare and Medical Device Industries Invited Keynote 2: **Mr. Chanchai Tangthamphoonphon**, Managing Director S.P. Metal Part Co., Ltd. Topic: Medical Industry Transformation Driven by Collaborative R&D Invited Keynote 3: **Mr. Viroj Sirithanasart**, Secretary of the Thai Tool and Die Industry Association Topic: Opportunity for Healthcare and Medical Device Industries Invited Keynote 4: **Mr. Nantachai Siripan**, Partner of Rise Group Co., Ltd. Topic: Healthcare industry in the Digital Transformation Era Q&A and Short Summary by Session Chair
11:05 - 11:10	**Digital Break**

FRIDAY 26th November **Venue: ZOOM Webinars (Link: Via Personal Email)**	
11:10 - 12:30	**Session 2: Next-generation Vehicles in EEC Toward the Future of Thailand's Sustainable Development** Session Chair: Asst.Prof.Dr. Anuwat Attachaiyawuth Invited speaker 1: **Mr. Panus Watnachai**, CEO of Panus Assembly Co., Ltd. Topic: Electrification on a Transition Era to Electric Commercial Vehicles Invited Speaker 2: **Mr. Elliot Zhang**, President, Great Wall Motor ASEAN & Thailand and **Mr. Khanchit Chaisupho**, Vice President, External & Government Affairs Great Wall Motor Thailand Topic: Strategy and Activities of GWM to Support Economic Growth in Thailand Invited speaker 3 : **Mr. Prempreedee Kitirattrakarn**, Manager of PTT ExpresSo and Investment Director of PTT Corporate Venture Capital, PTT Public Company Limited) Topic: Business Opportunities in Future of Mobility Invited Speaker 4: **Asst.Prof. Dr.Uthane Supatti** Head of PEEM research unit, Kasetsart University at Sriracha and Vice President of Electric Vehicle Association of Thailand (EVAT) Topic: E-mobility Industry and Technology Supply Chain in EEC, Thailand Panel discussion: **How could Next-generation vehicles in EEC shape the Future of Thailand Sustainable Development?** Panelists: **Mr. Panus Watnachai**, CEO of Panus Assembly Co., Ltd. **Mr. Khanchit Chaisupho**, Vice President, External & Government Affairs Great Wall Motor Thailand **Mr. Prempreedee Kitirattrakarn**, Manager of PTT ExpresSo and Investment Director of PTT Corporate Venture Capital, PTT Public Company Limited **Asst.Prof. Dr.Uthane Supatti** Head of PEEM research unit, Kasetsart University at Sriracha and Vice President of Electric Vehicle Association of Thailand (EVAT) Moderator **Mr. Soranun Choochat**, Founder, CEO, ETRAN
12:30 - 13:30	**Lunch**
13:30 - 14:30	**Session 3: AI Driven Society and Future Impacts in Thailand** Session Chair: Asst.Prof.Dr. Montri Phothisonothai Invited Keynote: **Dr. Jack Clancy Rungjaruanpol**, Board of Directors, The Institute of Research Development and Innovation for Industry, Federation of Thai Industries Topic: AI and How It Will Drive Thai Industry Toward Digital Transformation Invited Keynote: **Dr. Kobkrit Viriyayudhakorn**, President of The Artificial Intelligence Entrepreneur Association of Thailand (AIEAT) Topic: Thailand AI Startup Report 2021 Q&A and Short Summary by Session Chair
14.30 - 14.35	**Digital Break**
14:35 - 15:45	**Session 4: Robotics and Super Smart Society for a New World Order** Session Chair: Asst.Prof.Dr. Kittipong Yaovaja Keynote Speaker: **Asst.Prof.Dr. Kittipong Yaovaja**, Head of Robotics and Advanced Autonomous Systems Research Group, Faculty of Engineering at Sriracha. Kasetsart University, Sriracha Campus, Thailand Topic: Robotics Innovation and Human Development in the EEC: KU Sriracha and Collaboration Invited Keynote 1: **Prof.Dr. Shuoyu Wang**, Head of Advanced Robotics Research Center School of Systems Engineering, Department of Engineering, Graduate School of Engineering. Kochi University of Technology, Japan Topic: Life Support Robots for the Care of Bedridden People in KUT in Japan Invited Keynote 2: **Asst.Prof.Dr. Guang Yang**, Advanced Robotics Research Center, Research Institute, Kochi University of Technology, Japan Topic: Life Support Robots for the Care of Bedridden People in KUT in Japan Invited Keynote 3: **Prof.Dr. Yin-Tien Wang**, Professor and Chairman Department of Artificial Intelligence, Tamkang University, Taiwan Topic: Industrial Robotics Education at Tamkang University, Taiwan Invited Keynote 4: **Mr. Jack Zhou**, General director and CTO at Sunrise Intelligent Technology Co., Ltd. (Flex Intelligent Technology Co., Ltd.), China Topic: How China is Creating the Factory of the Future and Transferring Technology to Thailand Q&A and Short Summary by Session Chair
15:45 – 16:00	**Closing Ceremony**: MC: Asst.Prof.Dr. Jiraporn Pradabwong **Assoc.Prof.Dr. Sathaporn Chuepeng**, Dean of Faculty of Engineering at Sriracha, Kasetsart University Sriracha Campus

Dr. Wanwiwat Ketsawa
Deputy Director
Corporate Strategy Division, EEC
Office of Thailand (EECO)
(Direct to Secretary-General)

Before joining EECO, Dr.Wanwiwat was an Adjunct Lecturer and Visiting Research Fellow at leading universities in Japan, contributing and researching macroeconomics, human capital, and growth models. Before pursuing a Ph.D. in Japan, he was appointed as Deputy Fund Director of the Office of New Business Fund, Ministry of Education in Thailand, which managed and provided syndicated loans (≈160 million USD) and mechanisms for Start-up and innovative projects in Thailand. He was granted the Japanese Government Scholarship (Monbusho) and graduated Master of Economics both from Japan and Chulalongkorn University in Thailand. Dr.Wanwiwat is keen on macroeconomics, human capital growth, strategic planning, project integration, and management. He has good interpersonal skills and can also communicate in Thai, English, and Japanese languages.

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SESSION 1

"EEC-University-Industry Networks in Digital Platform Innovation"

Mr. Boonlert Chodchoy
President Thai Tool and Die Industry Association,
Vice President Medical and Health Device Manufacturers Industry Club,
The Federation of Thai Industries,
Committee The Federation of Thai Industries Chachoengsao Chapter

Mr. Boonlert Chodchoy is currently a president of Thai Tool and Die Industry Association, vice president of Medical Industry Division, Federation of Thai Industries, and committee of Federation of Thai Industries Chachoengsao chapter. He is also the managing director of CC Auto part Co., Ltd which his experience is over 30 year in manufacturing industry. Mr. Chodchoy has entered to medical industry who manufactures various medical equipment such as dental chair with accessories, and health facility equipment. His products are renowned are listed in the Thai innovation list. Mr. Chodchoy has received various award from due to his excellence in developing and managing medical device industry such as the Thailand Prime Minister Award, and Thai FDA quality. In addition, he is considered as key person who plays an important role in encouraging and leveraging other entrepreneur in transforming to medical device industry. Mr. Chodchoy is a key person who drives manpower development by cooperating with Thailand Professional Qualification Institute and Ministry of Educations to leverage competency of industrial human resources as well as students.

Mr. Chanchai Tangthamphoonphon
Managing Director S.P. Metal Part Co., Ltd.

Mr. Chanchai Tangthamphoonphon is currently a managing director of S.P. Metal Part Co. Ltd who has experience over 40 years in automotive part manufacturing. He is currently a committee of Thai Subcontracting Promotion Association (Thai Subcon) who has an important role in promoting, support and leveraging Thai industry transforming to healthcare industry. Mr. Tangthamphoonphon has started his medical device design and manufacturing sector since 2016. Under his visionary in future healthcare opportunity, he set R&D sections to design patient aid recovery related equipment used in health facility. This includes various design of posture adjustable hospital bed operated by mechanical or electrical drives, IV stand, healthcare furniture etc. With his quality works and international work process certification, he has gained trust from foreign customers and penetrated into international markets. Due to his success, Mr. Tangthamphoonphon has received various awards due to his excellence in leading his company. Besides commercial aspects, Mr. Tangthamphoonphon has donated his quality products to various hospital around Thailand in order to leverage quality of life for patient during his treatment stay.

Mr. Viroj Sirithanasart
Secretary of the Thai Tool and Die Industry Association

Mr. Viroj Sirithanasart is currently a secretary and an honorary president of Thai Tool and Die Industry Association (TDIA). He was also a president of alliance for supporting industries association. Mr. Sirithanasart is a key person who has important role in supporting and leveraging capability of Thai mould and die industry for a long time. His current initiatives is to integrate specialize of the Thai mould and die industry into newly market segment of medical devices. Mr. Sirithanasart has involved in initiating professional qualification

Mr. Nantachai Siripan
Partner of Rise Group Co., Ltd.

He is an invited speaker in session 1: perspectives of futuristic opportunities in the healthcare Industry, under the topic of “Healthcare industry in the Digital Transformation Era”.

Assoc.Prof.Dr. Nattapon Chantarapanich
Head of Mechanical Engineering Department,
Head of Digital Industrial Design and Manufacturing (DIDM) Research Unit

Dr. Nattapon Chantarapanich is an associate professor at Faculty of Engineering at Sriracha, Kasetsart University (KU), where he has been since 2013. He also currently serves as Head of Mechanical Engineering Department and Head of Digital Industrial Design and Manufacturing (DIDM) Research Unit. Dr. Chantarapanich has over 15 years of experiences in medical device industry and translational research, including joining in government research organization, and managing R&D department in medical device companies. His specialized field is medical device design and biomechanics. He invented various medical device products, for example, orthopaedic fixation, surgical instruments, etc. Some of his invention have been received silver award recognition in the 43rd International Exhibition of Inventions of Geneva held in Swiss Federation. In addition, he has listed as an inventor of 16 patents and petty patents in medical products which some of them has already been licensed to private companies. Besides his invention achievement, he has also published over 35 international articles indexed in SCOPUS, with h-index of 9. During his time with KU, he has been granted through office of higher education commission talent mobility program to work with medical device companies in 2017 and 2019. Currently, he focuses on multi-institution platform in developing orthopeadics & cardiovascular medical devices, new operative technique, and leveraging productivity of medical device company. Asides from his service to KU, Dr. Chantarapanich has also serves as guest lecturer and visiting researcher in various Thai medical and dental schools, advisor to medical section of Thai Subcon association, and recently been appointed by Thailand Productivity Institute (OTQA) being Thailand Quality Award (TQA) Assessor.

Mr. Prasitthichai Naronglerdrit
Lecturer at Department of Computer Engineering, Faculty of Engineering at Sriracha, Kasetsart University,
A member of Digital Industrial Design and Manufacturing (DIDM) Research Unit

Mr. Prasitthichai Naronglerdrit is a lecturer at Department of Computer Engineering, Faculty of Engineering at Sriracha, Kasetsart University. He also currently a member of Digital Industrial Design and Manufacturing (DIDM) Research Unit. He received a Bachelor of Engineering (Computer Engineering) with first class honors from Kasetsart University Sriracha Campus in 2012, a Master of Science (Embedded Intelligent Systems) with Distinction from University of Hertfordshire, UK in 2016, and currently a doctoral student in Mechatronics, Asian Institute of Technology. His specialized fields are artificial intelligence, signal processing and robotics with several publications in SCOPUS, cooperative projects and consultant in industrial sector. Asides from his service to KU, Mr. Naronglerdrit has also served as a speaker for various courses such as Computing, Data Science, And AI Curriculum for Training the Trainers which organized by Office of the Basic Education Commission and Artificial Intelligence Association of Thailand.

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SESSION 2

"EEC-University-Industry Networks in Digital Platform Innovation"

Mr. Panus Watnachai
CEO, Panus Assembly Co.Ltd.

Mr. Panus Watanachai received a Diploma of High School from Southwestern Academy, California. In 1996, he received a Bachelor Degree in Business and Economics from Marymount College, California, the United States. In 1998, he further received another Bachelor Degree in Marketing from Loyola Marymount University, California. He had also further his studies on the Modern Management Program at Chulalongkorn University followed by the Management Program at Management and Psychology Institute, Thailand.

Mr. Panus Watanachai was a financial advisor at Sun Corporation in the USA prior to joining Panus Assembly Co.Ltd. as a Marketing Director in 2003, and becoming the Chief Executives Officer (CEO) in 2013. Besides, he is a managing director of various affiliate companies, for instance, Logisenses Co.Ltd., Crestkernel Co.Ltd., and Wingserve Co.Ltd. He was honored as a quality person of the year 2018 in automotives industries from the Foundation of Science and Technology Council of Thailand. His vision and management strategies lead Panus Assembly to be a leading company in trailers and transportations businesses in Thailand. Nonetheless, Panus's products have also been exported to over 30 countries worldwide. In terms of Electric vehicles, he launched the World First Largest Pure Electric Push-back Tractor F1-340E in 2017, Last Vegus, USA followed by a medium size F1-280E in Munich, Germany. Subsequently, he has set an explicit roadmap on commercial EV through in-depth research and commercial aspects. He has continuously been accelerating EV products and ecosystem developments, involving autonomous vehicles, BESS, micromobility, buses and trucks conversion, charging solutions, and holistic mobility platform, towards a carbon neutral society and Thailand's sustainability.

Mr. Elliot Zhang
President, Great Wall Motor ASEAN & Thailand

Elliot Zhang is the helmsman who will be the key force of GWM's business development and overall management of production, sales and marketing in Thailand and ASEAN markets.

Mr. Zhang brings with him decades of extensive experiences in the automotive industry, including automotive research, manufacturing, supply, sales and marketing.

Among his earlier achievements, Mr. Zhang has brought 7.85% year-on-year sales growth to GWM Pickup under his leadership, which secured this pickup brand its top ranking in China's domestic and export sales for 23 years in a row. His next mission is to bring to GWM another greatness as the leading automobile company in ASEAN.

Mr. Khanchit Chaisupho
Vice President, External & Government Affairs Great Wall Motor Thailand

External & Government Affairs (EGA) main responsibility is leading company strategic analysis (politics/economy/industry) & develop strategic direction on Company public policy perspectives, including Electrification Strategy, in Thailand and ASEAN related to Trade preferences, Automotive technical & Non-technical policies, Sustainability programs, communication/collaboration & relationship building with policy makers in each ASEAN countries on GWM business activities & compliance related to new products launching, Export process/compliance, Homologation, Customs duty & tariff application, FTAs, and other privileges programs implementation.

Experience & Education : He was elected as Chairman of Automotive Industry Club, Federation of Thailand Industries during 2018-2020 and having intensive experiences working and management positions in many Automotive OEMs during the past 30 years (GM/Nissan/Toyota) before participating Great Wall Motor's ASEAN Management Team in June 2020. His highest education is Master of Business Administration.

Mr. Prempreedee Kitirattrakarn
Manager of PTT ExpresSo and Investment Director of PTT Corporate Venture Capital, PTT Public Company Limited

Prempreedee is leading the effort at PTT ExpresSo and is currently the Investment Director of PTT Corporate Venture Capital with investment focus in new energy and future of mobility.

He has extensive experience in clean energy, international M&A, and innovation busi-nesses. He also serves as board or advisory board of various clean tech startups, VC funds, as well as board member of TVCA.

Asst.Prof.Dr. Uthane Supatti
Head of PEEM Research Unit

Dr.Uthane Supatti received Ph.D. degree in Electrical Engineering from Michigan State University, USA in 2012. Dr.Supatti has experiences both in industry and academia. He was a power electronics engineer at Mana E-Car systems (a global supplier for components and systems of electric vehicles), located in Rochester Hill, Michigan, USA.

Currently, he is an assistant professor in electrical engineering and serves as the Head of Power Electronic Applications and Energy Management (PEEM) Research Unit at the Faculty of Engineering at Sriracha, Kasetsart University, THAILAND. His research of interest is focusing on converter design and control for renewable energy systems, Traction drives for Electric Vehicles, Micro grid and Smart Grid & Utility Applications.Additionally, Dr.Supatti was a committee member of the Electric Vehicle Association of Thailand (EVAT) during 2015-2020 and has become the Vice President for Academic Division of EVAT since August, 2020.

Dr. Supatti is also an IEEE member who contributes to the IEEE society. He was a technical committee of several IEEE conferences for example, ITEC-AP 2018, ITEC-AP 2019 and ICEMS2021. He also served as the secretary of the 2018 IEEE Transportation Electrification Conference and Expo, Asia- Pacific (ITEC Asia- Pacific, 2018), Bangkok, Thailand.

Asst.Prof.Dr. Anuwat Attachaiyawuth
Head of Civil Engineering Department

Anuwat Attachaiyawuth was born in Bangkok in 1984. He received the B.Eng. degree in Civil Engineering from King Mongkut's University of Technology Thonburi, in 2006, M.Eng. degree in Civil Engineering from Chulalongkorn University, in 2012 and D.Eng. degree in Civil Engineering from Kochi University of Technology, Kochi, Japan, in 2015.

He worked as postdoctoral researcher at Kochi University after receiving D.Eng degree, in 2015. After 2 years (2017), he started working as lecturer in Civil Engineering department at faculty of Engineering at Sriracha, Kasetsart University Sriracha campus. In 2019, Has was promoted to assistant professor. Now he is the head of civil engineering department. His research works related to self-compacting concrete development in terms of mechanical properties and its applications. Research field included fiber-reinforced concrete using high flowable mixtures.

Assistant Professor Attachaiyawuth is an individual member of Japan Concrete Institute (JCI), an associate member of Japan Society of Civil Engineers (JSCE), an ordinary member of Thailand Concrete Association (TCA). He received a full Special Scholarship Program (SSP) for doctoral course by Kochi university of technology (2012-2015), Rotary-Yoneyama scholarship, Japan (2014-2015), an excellent doctoral dissertation award (Yamada award) provided by Maeda Corporation Japan (2017). He also received 1,900,000 JPY from Japan Society for the Promotion of Science (JSPS) for fiscal year 2017 and 2018.

Mr. Soranun Choochat
Founder, CEO, ETRAN

Obsessed with the elevated state of possibilities and always ahead of his time, Sorarun invades design and innovation boundaries to create future-ready mobility solutions today. Coalescing performance, safety, and sustainability, Soranun leads ETRAN to consistently offering the best mobility solution with a conviction to “Drive the Better World.”

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SESSION 3

"EEC-University-Industry Networks in Digital Platform Innovation"

Dr. Jack Clancy Rungjaruanpol
Board of Directors, The Institute of Research Development and Innovation for Industry,
Federation of Thai Industries

Dr. Jack Clancy Rungjaruanpol, Board of Directors, The Institute of Research Development and Innovation for Industry, Federation of Thai Industries
(Monash University, Australia, in Neuroscience and Chaos Theory)
Experiences:

- General Manager, KV Electronics Co.,Ltd. The company is the manufacturer of high voltage industrial transformer as well as providing the industrial electronics repair services in Thailand.
- Managing Director, VoiCE Corporation Co.,Ltd. The company is the system integrator and designer of robot, automation and smart factory (IoT)
- Digital Advisory board of MK Restaurant Group (Public company)
- Digital Advisory of Toyota Tsusho Mobility Informatics PTE LTD
- National Committee, The National Commission of Thailand Artificial Intelligent Policy (2563-2569)
- National Committee, The National Commission of Raw materials and Components technology Policy for new Industry development (S Curve) (2563 - 2569)

Dr. Kobkrit Viriyayudhakorn
President of The Artificial Intelligence Entrepreneur Association of Thailand (AIEAT)

Dr. Kobkrit Viriyayudhakorn is the president of Artificial Intelligence Entrepreneur Association of Thailand (AIEAT). He is the founder of iApp Technology Co., Ltd. He graduated Ph.D. from Japan Advance Institute of Science and Technology (JAIST) in 2013. His research interests include Thai natural language understanding, machine learning, speech technology, computer vision, and deep learning. His company aims to build Thai voice communication platform for service robots and also provides open source tools and datasets for AI community.

Thailand AI Startup Report 2021 from Artificial Intelligence Entrepreneur Association of Thailand (AIEAT) is the most comprehensive and widely research on Thai AI startup ecosystem. It is covered over 50 AI Start up companies whose headquarter is located in Thailand. Company's Products, Employee and Talent information, Funding round, and Industry summarization is aggregated and visualized in this report.

Asst.Prof.Dr. Montri Phothisonothai
Lecturer at Department of Computer Engineering, Faculty of Engineering at Sriracha

He received his Ph.D. (Information Science and Control Engineering) from Nagaoka University of Technology in 2008 by MEXT Japanese Government Scholarship. During 2008-2011, he joined the Electrical Engineering Department, Faculty of Engineering, and College of Research Methodology and Cognitive Science, Burapha University. He received the Erasmus Mundus Scholarship, Bridging the Gap (BTG) Program at the University of Trento, Italy. From 2012-2014, he received the Japan Society for the Promotion of Science (JSPS) Fellowship, The University of Tokyo, Japan. He served as Technical Chair of Signal Processing Society; ECTI Association, Associate Editor-in-Chief Journal of Integrative Neuroscience (NeuroImaging chapter); during 2015-2017 he served as Assistant Dean, Academic Services and Research Management at International College, King Mongkut's Institute of Technology Ladkrabang, Thailand. He also has been awarded the research grant as Co-Project Principal Investigator titled "Revealing Human Diversity in Decoding Emotions with Machine Learning" by ETH Zurich and the University of Fribourg, Switzerland and as Project Principal Investigator titled "Eye-Tracking Controlled Communication and Brain Training System for Elderly and Disabled People in Thailand" by Thailand 4.0 Innovation Hubs on Ageing Society Translational Research. His research interests are Signal and Information Processing, Cognitive Science, and Digital Platform based Agritech.

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SESSION 4

"EEC-University-Industry Networks in Digital Platform Innovation"

Prof.Dr. Shuoyu Wang
Head of Advanced Robotics Research Center School of Systems Engineering, Department of Engineering, Graduate School of Engineering. Kochi University of Technology, Japan

Shuoyu Wang received the B.Sc. and M.Sc. degrees in control engineering from Shenyang University of Technology, Shenyang, China, in 1983 and 1988, respectively, and the Ph.D. degree in electrical engineering from Hokkaido University, Sapporo, Japan, in 1993. He is currently a Professor with the School of Systems Engineering and a Director with the Advanced Robot Research Center, Kochi University of Technology, Kochi, Japan. His research interests include walking rehabilitation robots, control, and fuzzy reasoning. He is a Fellow of the Robotics Society of Japan (RSJ) and a Fellow of the Japan Society of Mechanical Engineering (JSME).

At the beginning of this speech, we will introduce the Kochi University of Technology and the Research Institute. Next, we will explain our current research in detail regarding the care of bedridden people with life support robots.

Asst.Prof.Dr. Guang Yang
Advanced Robotics Research Center, Research Institute, Kochi University of Technology, Japan

Guang YANG received the B.Sc. and M.Sc. degrees in electrical engineering from the Shenyang University of Technology, China, in 2014 and 2017, respectively, and the Ph. D. degree from Kochi University of Technology, Kochi, Japan, in 2020. He is currently an assistant professor with the Advanced Robotic Research Center, Kochi University of Technology, Kochi, Japan. His research interests include care robots and construction robots considering the control, knowledge representation, and reasoning. He is a member of the Robotics Society of Japan (RSJ) and also a member of IEEE.

At the beginning of this speech, we will introduce the Kochi University of Technology and the Research Institute. Next, we will explain our current research in detail regarding the care of bedridden people with life support robots.

Prof.Dr. Yin-Tien Wang
Professor and Chairman Department of Artificial Intelligence, Tamkang University, Taiwan

Yin-Tien Wang received the M.S. degree from Stevens Institute of Technology in 1988 and Ph.D. degree from University of Pennsylvania in 1992, both in mechanical engineering. He is currently a Professor and founding chairman of the Department of Artificial Intelligence, Tamkang University, New Taipei City, Taiwan, where he is in charge of Robotics and Machine Vision courses. He also served as the chairman of the Department of Mechanical and Electro-Mechanical Engineering, Tamkang University (2016-2020). He has been elected as the Vice Chair of IEEE SMC Society Taipei Chapter (2018-2020). His current interests include real-time vision localization and mapping research and the transference of this technology to robotic and nonrobotic application domains.

AI and Robotics Programs at Tamkang University

TKU was Taiwan's first private college. It became the Tamkang College of Arts and Sciences in 1958, before being elevated to Tamkang University in 1980. From its humble beginnings as one of the first schools of higher education in Taiwan, TKU now has four campuses: the Tamsui Campus, the Taipei Campus, the Lanyang Campus, and the Cyber Campus; comprised of 8 colleges, with total about 24,000 students, around 2,000 faculty and staff members, and around 280,000 alumni.

This talk will focus on a brief introduction to the artificial intelligence (AI) and robotic program at Tamkang University and the collaborative research with industry. The robotics programs are organized by the Robotics Institute and the Department of Artificial Intelligence, both in College of Engineering. The Robotics Institute offers Master and PhD programs while the Department of Artificial Intelligence provides Bachelor program on Robotic Intelligence. Four teaching objectives of the robotics programs include robot design and fabrication, robot sensory and actuation, artificial intelligence and control, and internet of robotics. Students are also encouraged to participate the national robot contest and competition.

Graduates from the robotics program are popular in industry. By Cheers Magazine, TKU has been ranked No. 1 among private universities in the “Survey of 1000 Taiwan Enterprises Most Favorite College Graduates”. TKU graduates are welcomed by Taiwan business companies especially due to “Willing to Learn” and “Team Spirit”. A minimum of 128, 26, and 25 credits are required for the Bachelor, Master, and Ph.D. degrees, respectively. A thesis is required for both the Master’s and Ph.D. degrees.

Mr. Jack Zhou
General director and CTO at Sunrise Intelligent Technology Co., Ltd. (Flex Intelligent Technology Co., Ltd.), China

He has Experienced in telecommunication industry, Robotics industry, lighting industry and international trading business.

Working experience : 2016.1-now, Sunrise intelligent (Flex intelligent)

General director and CTO

Achievements:

I) in 2017, finished first AGV forklift develop jobs and produced first AGV forklift under sunrise(flex) name.

II) in 2018, finished first AGV forklift project in Thailand market, for engineering company on welding robots.

III) in 2019, finished AGV forklift project with TSAPK and TSA, which are the first AGV forklift project in Thailand car parts industry. Several welding robot project with laser tracking system as well

IV) in 2020-2021, finished AGV forklift project with Crown Seal PCL., Thailand, which use a very small size counter balance type forklift to fit for customer light payload floor, it's first project of this type in Thailand.

2007.2-2015.12, Mach shanghai co Ltd, CTO/Overseas sales director

2006.1-2007.2, Yosun enterprise co Ltd, Product manager

2003.2-2004.10, Shanghai belling co Ltd, Telecommunication, department sales manager

1999.5--2002.12, Shanghai BELL Ketai telecommunication equipment co ltd., Area sales manager

1997.7—1998.12, Wuxi policeman management school, technical teacher

Education:

•1996.9—1997.7 Learn policeman management courses in NENU and got a management degree. (Mixed courses by NENU and Ministry of Public Security)

•1993.9—1996.7 Major in Electronics and information system in Physics department of NENU and got a bachelor degree of science in three years.

How vision system changes AMR industry

Sunrise intelligent is a start-up company focus on intelligent warehouse technologies.

We developed technologies of vision system combine with AGV system, which we call vision AMR. We also develop Data visualization technology to help customer use their database easily.

With combination of vision and mobile robot platform promote industrial driverless innovation!

Bionics: more than 90% of animals' navigation sensors used large amount of information: obtain rich color information and texture information for positioning, control and perception. Low costs only 20% of LIDAR navigation system costs and no technology barrier.

It is suitable for every industrial such as Logistics Park, warehouses, factory, port and airport, truck upload and unload, warehouse transfer, indoor storage, outdoor transfer.

Core technologies of vision system are vision positioning technology, vision detection technology, and vision servo control. Safety system design is dual system and 5 layer protection with CE certification ready. 5G vision system AMRs/AGV has 3 steps to applies with displacing system with environment monitoring with AMRs/AGVs We show example case for high position solution: WMS+WCS+AMR/AGVs

Asst.Prof.Dr. Kittipong Yaovaja
Head of Robotics and Advanced Autonomous Systems Research Group, Faculty of Engineering at Sriracha Kasetsart University, Sriracha Campus, Thailand

He is currently an assistant professor and head of Robotics and Advanced Autonomous Systems Research Group, Kasetsart University. He has a background in control system, robotics and automotive having obtained a PhD in Mechanical Engineering from Kasetsart University. Based on core expertise, his research aims to develop robotics applications and intelligent system for both industrial robots and service robots. His work is often highly interdisciplinary involving industrial partners. His past achievements are such as electronic control module for automotive, SCADA for chemical process, industrial and mobile robots development, driving simulator for military, petty patent and copyright on health care applications.
To develop personnel in the field, he teaches measurements and control, industrial robots, and industrial applications in the international program of robotics and automation system engineering as well as in non-degree robotics programs.

Kasetsart University, Sriracha Campus is located in the Eastern Economic Corridor (EEC). EEC moves forward to accelerate human development towards the Smart Industry era. The emergence of 5G technology is a catalyst for rapid and disruption industrial sectors that have adapted to automation, use of artificial intelligence and building a smart factory that can be monitored and controlled remotely in real time which such technology will increase the efficiency of production.

The firstly implemented 5G mobile network in South East Asia was located at our campus since February, 2019. There is a 5G Base Station, 5G Core Network, AAU and all equipment for 5G network. The 5G sandbox is area in our campus to fully test the use cases of 5G with business sectors. For example; an ABB industrial robot was implemented with the 5G mobile network to test real-time teleoperation.

Digital Academy Thailand (DAT) is also work with our campus to provide skills on data science, artificial intelligence, internet of things, and other digital literacy. There is a co-working space and a NVIDIA DGX1 supercomputer available to business sector to produce their use cases.

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