

Tentative Conference Program

The 2020 International STEM Education Conference (iSTEM-Ed 2020)

November 4-6, 2020

The Amari Hua Hin Hotel, Prachuap Khiri Khan, Thailand

www.istem-ed.com

November 4, 2020		
14:00 – 17:00	Conference Registration	
15:00 – 17:00	Committee Meeting (Zone: Shoreline Beach Club)	
18.00 – 21.30	Welcome Reception (Zone: Shoreline Beach Club)	
November 5, 2020		
8:00 – 12:00	Conference Registration	
Technical Session # 1		
Time	Technology-Enhanced STEM Teaching and Learning	Pedagogical Modes and Applications of STEM Education
8:30 – 9:30	Room: Imagine 1 Session chair: Sukkharak Saechia	Room: Imagine 2 Session chair: Tuanjai Archevapanich
8:30 – 8:45	P00511 Leadership in the Digital Era Keerhathikorn Bai-Ngern and Arnon Tubtiang	P00364 Tutorial Teaching for Large Groups of Students Natawat Klamsakul, Wirawan Chinviriyasit and Chutipong Dechanubeksa
8:45 – 9:00	P00381 Robot Speech Recognition of Child Isolated Words Yoshikazu Miyanaga, Yu Tian and Tsutsui Hiroshi	P00373 VHDL Implementation of ARM Cortex-M0 Laboratory for Graduate Engineering Students Ehsan Ali and Wanchalerm Pora

9:00 – 9:15	<p>P00366 Virtual Reality of Solar Farm for the Solar Energy System Training <i>Jirapol Pinthong and Wattana Kaewmanee</i></p>	<p>P00384 Management of Integrated Learning Approach for Electrical Installation Practice Skills <i>Suporn Thaenkaew and Chira Sungkedkit</i></p>
9:15 – 9:30	<p>P00379 Anticipated and Actual Challenges Pertaining to Online Delivery of University Courses During COVID-19 Pandemic: The Engineering Faculty's Experience at Assumption University <i>Sajed Habib and Tussanai Parthornratt</i></p>	<p>P00447 The Development of Mastery Learning Self- Study Package for Air Conditioning System Practice Skills <i>Suporn Thaenkaew and Chira Sungkedkit</i></p>
9:30 – 10:00	Coffee/Tea Break	
Plenary Session (Room: Ballroom 1+2)		
10:00 – 10:30	Opening Ceremony	
10:30 – 11:10	<p>Keynote Speaker I: A Multiple View on Learning Activities for Innovative Education By Dr. Thepchai Supnithi <i>Vice President, Artificial Intelligence Association of Thailand (AIAT)</i></p>	
11:10 – 11:50	<p>Keynote Speaker II: STEM Education for Industry: A Case Study of Japanese-Style Engineering Education (KOSEN) in Thailand By Dr. Worawarong Rakreungdet <i>Assistant to the President, The Institute for the Promotion of Teaching Science and Technology (IPST), Ministry of Education, Thailand</i></p>	
11:50 – 12:00	Q & A (for Keynote Speakers Session)	
12:00 – 13:30	Lunch (Room: Mosaic)	

Technical Session # 2

Time 13:30 – 15:00	Technology-Enhanced STEM Teaching and Learning Room: Ballroom 1 Session chair: Athikom Roeksabutr	Technology-Enhanced STEM Teaching and Learning Room: Ballroom 2 Session chair: Kosin Chamnongthai	Pedagogical Modes and Applications of STEM Education Room: Imagine 1 Session chair: Kanokwan Ruangsiri	Skills & Re-Skills Development for STEM Literacy, Curriculum Studies and Development Focused STEM Education, and Other Related Topics to STEM Education Room: Imagine 2 Session chair: Somchai Hiranvarodom
13:30 – 13:45	<p style="text-align: center;">P00420</p> <p>Case study: To identify the Students that Participating in the Cheer Activity of the Faculty of Engineering, KMITL by Using Near-Field Wireless Communication</p> <p style="color: green;">Paisan Sithiyopasakul, Boonchana Purahong, Saran Sithiyopasakul and Tuanjai Archevapanich</p>	<p style="text-align: center;">P00520</p> <p>AI-Based Rock-Paper-Scissors Plug and Play System</p> <p style="color: green;">Narong Aphiratsakun, Xavier Jonathon Blake, Kyi Kyi Tin and Tin Ngwe</p>	<p style="text-align: center;">P00395</p> <p>The Development of Creativity and Innovation of Fifth-Grade Students by Design-Based Learning in the Appearance of Constellation Cycle</p> <p style="color: green;">Kewalee Saenpunya, Pattamaporn Pimthong and Benjaporn Junsir</p>	<p style="text-align: center;">P00393</p> <p>STEM Activity through Design-Based Learning in PM2.5 Crisis for High School</p> <p style="color: green;">Tassaneewon Lertcharoenrit, Pattamaporn Pimthong, Sutasinee Kityakarn, Songchai Ugsonkid and Ratiporn Munprom</p>
13:45 – 14:00	<p style="text-align: center;">P00499</p> <p>Intelligent Fuzzy Logic for STEM-ED in Power Transformer Failure Investigation-Based Power Utility Practice</p> <p style="color: green;">Nitchamon Poonnoy, Cattareeya Suwanasri and Thanapong Suwanasri</p>	<p style="text-align: center;">P00523</p> <p>Integrating MIAP Learning Activities Management and Cooperative Learning Using Internet of Things Learning Package</p> <p style="color: green;">Choochat Seetao and Kitti Surpare</p>	<p style="text-align: center;">P00571</p> <p>Experimental-Based Learning and Teaching Management for Localizer Transmitter of Aircraft Instrument Landing System</p> <p style="color: green;">Nipont Tangthong and Somsak Aktimagool</p>	<p style="text-align: center;">P00586</p> <p>Creation of Pinhole Camera for Solar Eclipse Using STEM Education</p> <p style="color: green;">Wiraporn Maithong and Warisa Pancharoen</p>
14:00 – 14:15	<p style="text-align: center;">P00510</p> <p>Fire Alert System & Application-Based on Internet of Things for STEM Education</p> <p style="color: green;">Anusha Devi Rajkumar, Sirirat Sakaew,</p>	<p style="text-align: center;">P00528</p> <p>Selection of Terminal Device for Virtual Simulation Experiment</p> <p style="color: green;">Fuan Wen and Gang Cao</p>	<p style="text-align: center;">P00513</p> <p>Effective Teaching Management through Cooperative Online Learning Activities for Engineering Education</p> <p style="color: green;">Kanyawit Klinbumrung</p>	<p style="text-align: center;">P00385</p> <p>Study of Applied STEM Education with Turbine Engines Topic for the Commercial Pilot License – Aeroplane Course</p> <p style="color: green;">Wipassorn Vinicchayakul, Tanisorn Boonsuk,</p>

	Thammaphon Yensook and Narong Aphiratsakun			Thapanapong Khammasan and Nattapat Imsap
14:15 – 14:30	P00518 A Study of Health Service Accessibility in Aging Society and Technological Development: A case of the Urban Community Surround Sirinthorn Hospital, Bangkok Pastraporn Thipayasothon, Amornchai Chaichana, Aueamaumporn Phetsinchorn, Thipawan Ruangrit and Pratum Munkong	P00555 Air Turbulence Forecasting of Airbus type A320 in Southeast Asia Using Deep Learning Method Pophon Laon, Pattarapong Phasukkit and Chusit Pradabpet	P00515 Automatic Position Reporting System for Miniaturized Satellite Experiment Using High-Altitude Balloon Pemmavit Sutthikarn, Sorawat Chivapreecha, Warayut Sitha, Thitaphan Jongsataporn and Akraphon Tirat	P00417 Student Development Towards Innovation in the Information Engineering Curriculum of Faculty of Engineering, KMIL Tuanjai Archevapanich, Boonchana Purahong, Jiran Sithiyopasakul, Jirayus Sithiyopasakul and Paisan Sithiyopasakul
14.30 - 14.45	P00559 Vertical Speed Prediction for the Efficient Landing of Aircraft Using GRU Siwagorn Pavitpok, Pattarapong Phasukkit and Chusit Pradabpet	P00557 Implementation of Three-Dimensional Visual Software Application as Learning Aid for Chemical Structure Drawing in Organic Usa Jeenjenkit and Kiattipoom Rodpun	P00522 Professional Teaching Practice Through MIAP-Based Integrated Learning Activities for Electrical Engineering Education Nutchanat Chumchuen, Kanyawit Klinbumrung and Suwaluck Meesomklin	P00527 Assessment Design for Learning by Online Business Game Urairat Maneerattanasak
14:45 – 15:00	-	-	P00568 Development of Simulation-Based RISDA Learning Process for Electronic Technology Education Ekkaphan Phacharoen and Somsak Akatimagoon	-
15:00 – 15:30	Coffee/Tea Break			

Technical Session # 3

Time 15:30 – 16.45	Pedagogical Modes and Applications of STEM Education Room: Ballroom 1 Session chair: Supattana Nirukkanaporn	Skills & Re-Skills Development for STEM Literacy, Curriculum Studies and Development Focused STEM Education, and Other Related Topics to STEM Education Room: Imagine 1 Session chair: Cattareeya Suwanasri	Technology-Enhanced STEM Teaching and Learning Room: Imagine 2 Session chair: Warunee Srisongkram
15:30 – 15:45	P00547 A 5E Learning Cycle Lesson on Optical Activity of Chiral Compounds Duangkhae Srikun and Sarote Boonseng	P00603 Evolution of STEM Education in Thailand's Basic Education Ouppagam Jeeraphanthu, Jedsada Tangmongkhonsuk and Apisit Tongchai	P00566 The Effectiveness of the Quizizz Interactive Quiz Media as an Online Self-Assessment of Undergraduate Students to Improve Students' Learning Outcomes Nednipa Jiemsak and Ruamsak Jiemsak
15:45 – 16:00	P00562 STEM Education Activities Development to Promote Computational Thinking's Students Pichet Srisangngam and Chaiyos Dechsura	P00534 Students' Perceptions of Makerspaces and Learning Environments in Thai Schools Kanokkarn Yamyim, Noawanit Songkram, Wilawan Inchamnan and Boonanan Natakun	P00567 The Effect of Blended Learning with Collaborative Learning upon English Communication Skills of English Teaching Program Students Kittiphop Mahawan and Patthaporn Langprayoon
16:00 – 16:15	P00565 Pre-service Teachers' Perceptions on Active Learning in Basic Mathematics Measurement in School Course Sirirat Chaona	P00578 Equivalent Circuit Encompassing Electrical and Mechanical Parts of Direct Current Motors Vasin Boonsobhak and Jirayuth Mahattanakul	P00573 Improving Graphic Design Skill through G Suite for Education in Undergraduate Student Suwanit Rungratri and Siripon Saenboonsong

16:15 – 16:30	<p align="center">P00532 Study of teacher's Learning Management Behavior with Professional Learning Community through Active Learning in Mathematics Classroom Supinda Pectchara</p>	<p align="center">P00588 A Comparison Study Between CATC Commercial Pilot-Airplane Course and the Course with EASA Standards Wipassorn Vinicchayakul, Kittichai Changsanoh, Sirinya Tabsombat and Boonmee Piampring</p>	<p align="center">P00576 A Study of Learning Achievement Using Social Media and Digital Video of Students in the Faculty of Education Supatta Fak-on and Boriboon Chobthamdee</p>	
16:30 – 16:45	<p align="center">P00396 Teaching Requirement Engineering Using Industrial-Infused Project-Based Learning Adisak Intana</p>	<p align="center">P00589 An Approach for Mind Preparation for First-Year College Students: A Case Study Pichai Aree, Chatchai Surawattanaboon, Phisan Kaewprapha and Kanchan Silawarawet</p>	<p align="center">P00570 Development of Disciplinary Integrated Teaching Model on Sensor Technology and Applications for Industrial Education Kanokwan Ruangsiri, Preecha kocharoen, Sayan Chaiwas, Jirasak Achariyayos, Virulh Hutavadhana and Surapan Tansriwong</p>	
18.00 – 22.00	Banquet (Room: Ballroom 1+2)			
November 6, 2020				
Focus Group Discussion in STEM Education				
Time	Group 1 Meeting	Group 2 Meeting	Group 3 Meeting	Group 4 Meeting
9:00 – 12:00	See information at the registration desk	See information at the registration desk	See information at the registration desk	See information at the registration desk
12.00	Conference Close			