

SCIENTIFIC PROGRAM

Day 1 : Thursday, 9 July 2026

Room: Diamond Ballroom 1 4 th floor	8:00 a.m.–9:00 a.m.	Conference Registration			
	9:00 a.m.–9:15 a.m.	Greeting and Welcoming by Master of Ceremony (MC)			
	9:15 a.m.–9:25 a.m.	Opening Session Welcome Speech from Conference Chair: Professor Somrerak Chandra-Ambhonn Vice President for Research of KMUTNB			
	9:25 a.m.–9:30 a.m.	General Introduction of RI ² C 2026			
	9:30 a.m.–10:15 a.m.	Keynote Speaker I : Professor Dr. Nipon Theera-Umpon Chiang Mai University, Thailand Topic : <i>Classical AI in Biomedicine</i>			
	10:15 a.m.–11:00 a.m.	Keynote Speaker II : Wirat Sri-Amonkitkul Managing Director, Analog Devices (Thailand) Co., Ltd. President of Thai Semiconductor Industry Trade Association–THSIA Topic : <i>Thailand's Semiconductor and Advanced Electronics Industry: A New Engine for the Digital Economy</i>			
	11:00 a.m.–11:15 a.m.	Coffee Break			
	11:15 a.m.–11:55 a.m.	Keynote Speaker III : Dr. Phongsatorn Saisutjarit Director (Acting), International Institute of Space Technology for Economic Development (InSTED) KMUTNB, Thailand Topic : <i>From Lab to Orbit - Accelerating Thailand's Space Ecosystem through KNACKSAT-2 and Collaborative Innovation</i>			
	12:00 p.m.– 1:00 p.m.	Lunch Break			
Room: Jasper 2 3 rd floor	1:00 p.m.–2:00 p.m.	Poster Presentation			
Room: Sapphire 1 Sapphire 2 Sapphire 3 Jasper 1 3 rd floor	2:00 p.m.–3:30 p.m.	Parallel sessions (4 rooms)			
		Sapphire 1 (iEE)	Sapphire 2 (iEE)	Sapphire 3 (iSS)	Jasper 1 (iMM)
		1571293542	1571286065	iSS2026-25	iMM2026-03
		1571294210	1571283573	iSS2026-45	iMM2026-05
		1571294218	1571267622	iSS2026-46	iMM2026-09
		1571294490	1571282986	iSS2026-51	iMM2026-11
		1571316019	1571283066	iSS2026-16	iMM2026-17
		1571316024	1571291044	iSS2026-43	iMM2026-15
	3:30 p.m.–3:45 p.m.	Coffee Break			
Room: Sapphire 1 Sapphire 2 Sapphire 3 Jasper 1 3 rd floor	3:45 p.m.–5:45 p.m.	Sapphire 1 (iEE)	Sapphire 2 (iEE)	Sapphire 3 (iSS)	Jasper 1 (iMM)
		1571316677	1571268559	iSS2026-31	iMM2026-08
		1571316687	1571282727	iSS2026-42	iMM2026-12
		1571293765	1571283959	iSS2026-50	iMM2026-26
		1571294443	1571284067	iSS2026-26	iMM2026-20
		1571314362	1571284075	iSS2026-27	iMM2026-21
		1571314364	1571285237	iSS2026-53	
		1571286436	1571285935	iSS2026-33	
		1571275840	1571286052	iSS2026-29	

<i>Room: Diamond Ballroom 1 4th floor</i>	6:00 p.m.–9:00 p.m.	Dinner Party and Awards announcement
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**** Oral Presentation 15 min (12 min presentation + 3 min Q&A) ****

Sapphire 1

Innovative Electricals and Electronics (iEE)

Chair: Dr.Nathapat Supreeyatitikul

Co-Chair: Dr.Sangwon Kittiwittaya

Time	Paper ID	Title	Authors
2:00-2:15 p.m.	1571293542	A Compact Wideband Planar Inverted-F Antenna with Meandered Radiating Patch for IoT Applications	Kaung Mon Htet, Muhammad Uzair, Kittisak Phaebua and Suramate Chalermwisutkul
2:15-2:30 p.m.	1571294210	Efficient and Accurate Reconstruction of Under-Sampled Spherical Near-Field Measurements Using Kernel-Based Methods	Sangwon Kittiwittayapong, Kittiphon Supreecha, Montree Saowadee, Titipong Lertwiriaprapa, Danai Torrungrueng and Kittisak Phaebua
2:30-2:45 p.m.	1571294218	A Symmetric CMRC Resonator for Mutual Coupling Reduction in Radar Antenna Systems	Sangwon Kittiwittayapong, Kittisak Phaebua, Kittiphon Supreecha, Montree Saowadee, Danai Torrungrueng and Titipong Lertwiriaprapa
2:45-3:00 p.m.	1571294490	Characterization of Laser-Induced Graphene Electrodes for Flexible Touch Sensors	Hein Htet Kyaw, Muhammad Uzair, Jun-Wei Yang, Kittisak Phaebua, Shih-Feng Tseng and Suramate Chalermwisutkul
3:00-3:15 p.m.	1571316019	Indoor LoRa Propagation Measurement Using RSSI and SNR under LOS and NLOS Conditions with Gateway Placement Analysis	Rungrat Viratikul, Kamol Boonlom, Timothy Amsdon, Jarun Khonrang, Nonchanutt Chudpooti and Nutapong Somjit
3:15-3:30 p.m.	1571316024	Experimental Investigation of Multi-Floor Indoor LoRaWAN Propagation at 923 MHz for Smart Building Applications	Pipatpong Sommawang, Sarawuth Chaimool, Kamol Boonlom, Jarun Khonrang, Rungrat Viratikul, Nonchanutt Chudpooti, Prayoot Akkaraekthalin, Timothy Amsdon and Nutapong Somjit

Innovative Electricals and Electronics (iEE)

Chair: Assoc.Prof.Dr.Nonchanutt Chudpooti

Time	Paper ID	Title	Authors
3:45-4:00 p.m.	1571316677	Optical Power Measurement for PVC Pipeline Defect Inspection Using Single Wavelength Illumination	Kritsada Janmathong, Nonchanutt Chudpooti, Doldet Tantraviwat, Kamol Boonlom, Pipatpong Sommawang and Nutapong Somjit
4:00-4:15 p.m.	1571316687	Monolithic 3D-Printed Antipodal Vivaldi Antenna for Ultra-Wideband Applications	Thananchai Inang, Nonchanutt Chudpooti, Doldet Tantraviwat, Nutapong Somjit and Chaoxuan Lu
4:15-4:30 p.m.	1571293765	Planar CSRR-Based Microwave Sensor for Dielectric Constant Measurement of Solid Materials	Sirawit Chisingthong, Suchitra Lime, Preecha Thongdit, Wanwisa Thaiwirot, Nonchanutt Chudpooti and Prayoot Akkaraekthalin
4:30-4:45 p.m.	1571294443	Simulation Study of a Dual-Function Quad-Ring Circular Monopole Antenna for Sensing and Wireless Communication	Noltawat Ploungbunmee, Wanwisa Thaiwirot, Prayoot Akkaraekthalin, Suramate Chalermwisutkul and Nonchanutt Chudpooti
4:45-5:00 p.m.	1571314362	Gain Enhancement of an All-Textile Dual-Band Antenna Using Defected Ground Structure	Wanwisa Thaiwirot, Yotrawee Hengroemyat, Prayoot Akkaraekthalin and Nonchanutt Chudpooti
5:00-5:15 p.m.	1571314364	Comparative Investigation of Dual-Band All-Textile AMC Structures Using Different Textile Substrates	Yotrawee Hengroemyat, Wanwisa Thaiwirot, Prayoot Akkaraekthalin and Nonchanutt Chudpooti

Sapphire 1

Time	Paper ID	Title	Authors
5:15-5:30 p.m.	1571286436	Comparative Classification of sEMG Signals Using Hybrid Deep Learning Architectures	Somporn Tiacharoen
5:30-5:45 p.m.	1571275840	Literature Review of AIoT-based Smart DataSecurity Management Systems for Higher Education Institutions	Nawarat Pinamnaj, Panita Chobtamkit, Chutipa Sukpolsawat and Nguyen Hoang Anh

Sapphire 2

Innovative Electricals and Electronics (iEE)

Chair: Asst.Prof.Pongsathorn Chomdee

Time	Paper ID	Title	Authors
2:00-2:15 p.m.	1571286065	Development of IoT Controlled Wheelchair	Nattanaree Thanestmaneeekul, Sasipha Wattanachai, Giodante Kongchanok Care and Sumet Umchid
2:15-2:30 p.m.	1571283573	Real-Time Banana Leaf Disease Diagnosis Using Convolutional Neural Networks and a Web-Based Application	Tapanee Treeratanaporn, Pharit Tanworakul, Phongchan Chanjaem, Witthawin Thitichetrakun, Punyaphat Chanpradap and Patiphan Nakhabodi
2:30-2:45 p.m.	1571267622	Numerical Verification of the Lattice Boltzmann Method for 2D Poiseuille Flow Using the D2Q9-BGK Model	Sorasak Laopraphaiphon
2:45-3:00 p.m.	1571282986	Feasibility Study of Serotonin Detection Using Electrochemical Sensor Toward Fruit Analysis	Kessarat Ugsornrat, Warisara Boonsiri, Wichayaporn Kamsong, Anan Saenkamai, Chanpen Karuwan and Adisorn Tuantranont
3:00-3:15 p.m.	1571283066	Design, Fabrication, and Experimental Study Plastic based Lab on a Chip with Conductive ink	Thanakrit Thanacharoenchanaphas, Kessarat Ugsornrat, Wichayaporn Kamsong, Triwit Phurksasukkasem, Chanpen Karuwan and Adisorn Tuantranont
3:15-3:30 p.m.	1571291044	Fast Syndrome-Gated Gao Decoding for (15,9) Reed–Solomon Code in PAM-4 Transmission	Nguyen Hung Minh and Truong Quang Vinh

Innovative Electricals and Electronics (iEE)

Chair: Dr.Nattawat Chantasen

Co-Chair: Dr.Pachara Srimuk

Time	Paper ID	Title	Authors
3:45-4:00 p.m.	1571268559	YOLO-based Leading Point Search for Inter-Row Navigation in Maize Fields with Various WeedConditions	Thanpisit Rangdeang, Chaithawat Puakhom and Niramom Ruangpayoongsak
4:00-4:15 p.m.	1571282727	NMPC-Based Cooperative Tracking with EKF for Quadrotor Landing on a Moving USV	Setyo Nuraini Wisudawati, Zulkifli Hidayat and Achmad Jazidie
4:15-4:30 p.m.	1571283959	Design and Implementation of a Mobile Lift Robot with Intelligent Temperature Prediction	Niramom Ruangpayoongsak, Tanakit Jansom, Sahasanat Panyatharanukul, Thansingha Chansritrakul and Pensiri Tongpadungrod
4:30-4:45 p.m.	1571284067	Vision-based Autonomous Tennis Ball Collection using a Differential Drive Mobile Robot	Nuttapon Rothong, Chonsamut Lampa, Phiranat Ruangthong, Kunathip Seangaram and Watcharin Pongaen
4:45-5:00 p.m.	1571284075	The Markov Chain Approach of ARL for Modified Exponential Weighted Moving Average Control Chart with UMWUE	Apitad Kraichok, Yupaporn Areepong and Saowanit Sukparungsee
5:00-5:15 p.m.	1571285237	Development of a Density Control System for Mushroom Substrate Briquetting using PID Controller	Manot Mapato, Anurak Choosri, Natdanai Gojarnsri, Polapong Nawapongpipat, Chanatip Orthaiwan and Worachet Pethaisong

Sapphire 2

Time	Paper ID	Title	Authors
5:15-5:30 p.m.	1571285935	Bootstrap Confidence Intervals for a Population Mean of Two-Sided Length Biased Inverse Gaussian Distributions and Application	Kittipot Putisompon and Wikanda Phaphan
5:30-5:45 p.m.	1571286052	Hand-Ray Selection in Mixed Reality for Robotic Assistant Surgical Instrument Delivery	Phonpruek Muangsri, Poomipat Makornwattana, Amornphun Phunopas, Teppakorn Sittiwanchai, Wisanu Jitviriya and Aran Blattler

Sapphire 3

Innovative Sustainable Sciences (iSS) Chair: Dr. Khemmathin Lueangwattanapong			
Time	Paper ID	Title	Authors
2:00-2:15 p.m.	iSS2026-25	Optimization of Sodium Hydroxide and Sodium Bisulfite Co-solvent Pretreatment for Bioethanol Production from Eucalyptus via Simultaneous Saccharification and Fermentation	Jiraparn Khawsurichan, Adhira Babu, and Atthasit Tawai
2:15-2:30 p.m.	iSS2026-45	Thermal decomposition kinetics of hardwood and herbaceous biomass – A comparative analysis	Sanalkumar Atthanikuzhy Peethambaran, Saravanan Ramiah Shanmugam, Arul Chan Basha, Gunasekar Varadarajan, Malinee Sriariyanun and Ponnusami Venkatachalam
2:30-2:45 p.m.	iSS2026-46	Assessment of Bio-Fabricated Ag/TiO ₂ and Ag/ZnO Nanocomposites as potent Antimicrobial Agents Driven by Plasmonic Photocatalysis	Vadaradajan Gunasekar, Venkatachalam Ponnusami and Malinee Sriariyanun
2:45-3:00 p.m.	iSS2026-51	Water-assisted liquid formation of choline chloride/cellobiose mixtures and its extension to cello-oligomers	Soki Idenaga, Takashi Hosoya, Santi Chuetor and Hisashi Miyafuji
3:00-3:15 p.m.	iSS2026-16	Enhancing biodiesel properties through fatty acid modulation in an engineered yeast strain	Lalitwadee Thanee, Arnon Khamkeaw and Sasithorn Kongruang
3:15-3:30 p.m.	iSS2026-43	Tunable Mechanical Properties and Structural Integrity of TMV-RGD Functionalized Methacrylated-Hyaluronic Acid Hydrogels	Theeraporn Bubpamala
Innovative Sustainable Sciences (iSS) Chair: Asst.Prof.Dr.Wanwitoo Wanmolee			
Time	Paper ID	Title	Authors
3:45-4:00 p.m.	iSS2026-31	Development of Multifunctional Bio-Based Anchor Peptide Finishes for Waterproof, and Chemical Repellent Textiles: A Sustainable Alternative to PFAS-Based Coatings	MUHAMMAD UMER , Dr. Malinee Sriariyanun and Mr. Varqha Bagwan
4:00-4:15 p.m.	iSS2026-42	Anticancer and antioxidant analysis of synthesized 7-hydroxy-4-methyl-2H-chromen-2-one derivatives	Anand Kumar Yadav, Siddhartha Das Pramanik, Asmita Shrestha, Partha Roy and Paras Nath Yadav
4:15-4:30 p.m.	iSS2026-50	Agarwood Waste-Derived Lignin as a Sustainable Adsorbent for Methylene Blue Removal	Suphattharanan Aingthaisong, Kanyarak Prasertboonyai and Waraporn Chanakul
4:30-4:45 p.m.	iSS2026-26	A Coupled Input–Output Linearization and Proportional–Integral Control Framework for Continuous Bioethanol Fermentation Processes	Sirawich Kerdnoi, Sunphong Thanok and Atthasit Tawai
4:45-5:00 p.m.	iSS2026-27	CO ₂ Absorption Enhancement of MgO Nanofluid and Validation Using Artificial Neural Network	Basavaraj Devakki, Yuvaraja Naik and Ramachandra C G
5:00-5:15 p.m.	iSS2026-53	CO ₂ Adsorption Behavior over Cobalt Catalysts Supported on Tamarind Wood-Derived Activated Carbon	Korawan Akkabut, Waraporn Chanakul, Kanyarak, Prasertboonyai, Eumporn Buarod, Suparoek Henpraserttae and Saowaluk Intarasiri

Sapphire 3

Time	Paper ID	Title	Authors
5:15-5:30 p.m.	iSS2026-33	Comparative review of nafion and alternative membranes for vanadium redox flow batteries	Muhammad Ilyas, Abdullah Rehman, Ratchaneewan Chatham and Khettayaporn Mananavickpol
5:30-5:45 p.m.	iSS2026-29	CFD Evaluation of a Bamboo Chalom Protective System for Mangrove Propagules	Lerson Kirasamuthranon, Thanyathip Prasert, Thitipat Samritvanitcha and Keerati Kirasamutranon

Jasper 1

Innovative Mechanical and Materials (iMM) Chair: Asst.Prof.Dr. Wanlop Kitisatorn Co-Chair: Dr. Suporn Kaewta			
Time	Paper ID	Title	Authors
2:00-2:15 p.m.	iMM2026-03	Chain Extender–Dependent Crosslink Structure and Swelling Behaviour of Sustainable Polyurethane Films Derived from Modified Used Palm Oil and Recycled PET Polyols	Panachai Thusanaphoom, Thanathach Yingshataporn-a-nan, Aubonwan Phonlakan, Naphatsawan Kaewniwong, Krittaprod Phanyam, Warat Sritatananon, Wichain Chailad and Nathapong Sukhawipat
2:15-2:30 p.m.	iMM2026-05	Multifunctional Natural Rubber Composites: Role of BaSO ₄ /B(OH) ₃ Ratio in Enhancing Flame Retardancy and Mechanical Performance	Tharanin Panyachan, Kritsana Pokamas, Thanathach Yingshataporn-a-nan, Panachai Thusanaphoom, Wichain Chailad, Natsupon Chutithanapanon, Siriprapa Kaewjaeng and Nathapong Sukhawipat
2:30-2:45 p.m.	iMM2026-09	Innovation and Evolution of Lightweight Architecture: From Foundational Theory to Sustainability in the Digital Age	Sippawich Kambung
2:45-3:00 p.m.	iMM2026-11	Influence of Alkaline Treated Rice Husk Fibers in Polishing Pad for Chemical Mechanical Polishing (CMP) of Sapphire	Sethavut Duangchan, Natthaphon Bun-athuek, Mighttho Ketsuwan, Thanathorn Bupphacharoen, Pipat Phaisalpanumas, Panart Khajornrungruang, Keisuke Suzuki and Akiyoshi BABA
3:00-3:15 p.m.	iMM2026-17	Effect of Polyester Content on the Mechanical Properties of Polyurethane/Rice Husk Fiber Composite Polishing Pads	Thanathorn Bupphacharoen, Natthaphon Bun-athuek, Nathapong Sukhawipat, Mighttho Ketsuwan, Noppachai Saivaew, Siriwan Boripatkosol and Thammarat Somthong
3:15-3:30 p.m.	iMM2026-15	Constitutive Modeling and Parameter Identification of Upcycled Waste Tires for Sled Test Decelerator System	Thanachart Hirunsomsap and Saharat Chanthanumataporn
Innovative Mechanical and Materials (iMM) Chair: Asst.Prof.Dr. Thamrongsin Siripongsakul Co-Chair: Asst.Prof.Dr. Wanlop Kitisatorn			
Time	Paper ID	Title	Authors
3:45-4:00 p.m.	iMM2026-08	A Research on Corrosion-Resistant Behavior of Phyto-Extract of Saal Tree for Stainless Steel in Aggressive Concrete Pore Electrolyte	Dhruba Babu Subedi, Kamal Thapa Kunwar Magar, Yuvraj Paude, Srijana Bhandari, Lok Kumar Shrestha, Jagadeesh Bhattarai and Nootan Prasad Bhattarai
4:00-4:15 p.m.	iMM2026-12	Flowability and Early Age Properties of High Performance Concrete Utilizing Lightweight Aggregates	L.H.G. Lamaheewa, A.B.M.A. Kaish, Jacob Lim Lok Guan and H.M.C.C. Somarathna
4:15-4:30 p.m.	iMM2026-26	Investigation of corrosion under aircraft coating using eddy current nondestructive testing in aircraft structures	Seekharin Komonhirun, Sujittra Tangprakob, Sorawit Chanaphan, Awika Jaroensri and Thammaphorn Thublaor

Jasper 1

Time	Paper ID	Title	Authors
4:30-4:45 p.m.	iMM2026-20	CO ₂ Adsorption behavior over cobalt catalyst supported on SiO ₂ and MgO: A comparative study	Narongsak Wongsuwan, Kanyarak Prasertboonyai and Saowaluk Intarasiri
4:45-5:00 p.m.	iMM2026-21	Influence of Monometallic and Bimetallic Active Sites on CO ₂ Adsorption Performance over Silica Supports	Piyachat Heakklung, Kanyarak Prasertboonyai, Waraporn Chanakul and Saowaluk Intarasiri