

Thursday, 1st April 2021

Main meeting room

9.00-10.00

Opening Ceremony

Parallel Technical Session I	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7
	TRACK 1 INDUSTRIAL ENGINEERING AND MANUFACTURING	TRACK 2 MECHANICAL, MECHATRONICS AND CIVIL ENGINEERING	SPECIAL SESSION ADVANCED MATERIALS & NANOTECHNOLOGY	TRACK 4 MATERIALS SCIENCE AND ENGINEERING, NANOTECHNOLOGY	TRACK 5 TELECOMMUNICATIONS, COMPUTER SCIENCE, INSTRUMENTATION AND CONTROL, ELECTRICAL AND ELECTRONIC ENGINEERING	TRACK 5 TELECOMMUNICATIONS, COMPUTER SCIENCE, INSTRUMENTATION AND CONTROL, ELECTRICAL AND ELECTRONIC ENGINEERING	TRACK 6 ACOUSTIC AND MUSIC ENGINEERING
Chairman	Asst. Prof. Dr. Chaowalit Hamontree	Asst. Prof. Dr. Arthit Petchsasithon	Asst. Prof. Dr. Mayuree Phonyiem Reilly	Assoc. Prof. Dr. Navaphun Kayunkid	Asst. Prof. Dr. Rathachai Chawuthai	Asst. Prof. Dr. Surin Kittitornkun	Assoc. Prof. Dr. Sorasak Danworaphong
10.00-10.15	(ID 27) <i>Enhancing Local responsiveness of large centralized distribution network due to demand spike.</i>	(ID 25) <i>Building Information Modeling – Based Analysis to Minimize Waste Rate of Structural Reinforcement.</i>	(INV-01) Prof. Wang Feng <i>“Promote in-depth Collaboration in Industry, Academia and Research Resources in the Field of Materials Science Between China and Thailand with the Dual-degree Program as the Link”</i>	(ID 33) <i>Effects of Expanded Perlite on Physical and Mechanical Properties of Cement Mortar</i>	(ID 07) <i>Application of smart phone for industrial barcode reader</i>	(ID 14) <i>Spot Welding Defect Detection Using Synthetic Image Dataset on Convolutional Neural Networks</i>	(ID 03) <i>Unobtrusive Loudspeaker Selection for Sound Installations</i>
10.15-10.30	(ID 28) <i>Determination of the optimal parameter setting in the finishing process of a cylindrical grinding machine using design of experiments</i>	(ID 50) <i>Investigation the Behaviors of Vibrations Waves from High-Speed Train Modelling</i>	(INV-02) Assoc. Prof. Young Jae Song <i>“Graphitic Hexagonal Carbon Materials for Device Applications”</i>	(ID 62) <i>Chitosan Modified with Sodium Lauryl Ether Sulfate Used as Adsorbent of Soluble Oil</i>	(ID 10) <i>Using a Smartphone to Assist in Physical Therapy</i>	(ID 60) <i>Computer Programming Classroom Platform</i>	(ID 61) <i>Waveform analysis and perception of harpsichord sounds with various articulations and ornaments</i>
10.30-10.45	(ID 74) <i>Coral-Reef Optimization Algorithm for Distribution of Food Products in Thailand</i>	(ID 56) <i>Crash Energy Absorption Aspects of Reinforced Concrete Barriers with Natural Rubber Sheet</i>	(INV-03) Assoc. Prof. Takashi Ikuno <i>“Wavelength-dependent bipolar photodetectors”</i>	(ID 128) <i>Influence of Injection Process Parameters on Mechanical Properties of Isotactic Polypropylene: A Design of Experiments Approach</i>	(ID 11) <i>Firearm Training System by Laser Gun</i>	(ID 117) <i>Bayes Techniques for Credit Factor Analysis of Saving Cooperatives</i>	(ID 91) <i>Deep Neural Networks for Sound Synthesis of Thai duct Flute, Khlui</i>

10.45-11.00	(ID 81) <i>Enhancement competitive capabilities of the Korat stirred-noodle industry by improving productivity</i>	(ID 108) <i>Male UAV wings structure design under static and dynamic load</i>	(INV-04) Specially Appointed Assoc. Prof. Aaron Morelos-Gomez <i>“Spray-Coated Graphene Oxide Membranes for Water Filtration”</i>	(ID 145) <i>The Influence of Processing Parameters on Mechanical and Morphological Properties of TPVs base on Natural Rubber and Polypropylene Blends: A Statistics Approach</i>	(ID 99) <i>Augmented reality system for robotic simulation</i>	(ID 165) <i>Air Turbulence Forecasting of Airbus type A320 using Recurrent Neural Network (RNN) Method.</i>	(ID 133) <i>Design and Signal Processing for Acoustic Compass</i>
11.00-11.15	(ID 109) <i>System Dynamics Model for Dengue Fever Infections in Thailand</i>	(ID 123) <i>Measurement Model of Human Resources, Knowledge Management, Trust and Performance in Thai Infrastructure Construction Firms: A Structural Equation Modeling Approach</i>		(ID 148) <i>Dark current reduction of MSM photodetector by sintering</i>	(ID 238) <i>Classroom Allocation System with User Experience Design</i>	(ID 166) <i>Altitude prediction for the efficient take-off and landing of aircraft using Gated recurrent unit (GRU).</i>	(ID 170) <i>A Wireless Noise Assessment Device for Soundscape Visualization</i>
11.15-11.30	(ID 130) <i>Simulation and analysis of investment casting process on francis turbine runner</i>	(ID 143) <i>Structural Influence Line Analysis Program Based on Python</i>	(INV-05) Prof.Jakapan Chantana <i>“Development of 22%-efficient Cd-free Cu(In,Ga)(S,Se)₂ solar cell with (Zn,Mg)O buffer through use of aged Cu(In,Ga)(S,Se)₂ absorber”</i>	(ID 278) <i>The application of electronic nose for milk spoilage detection and quality control</i>	(ID 252) <i>Virtual Reality Game for Visual Dimension Understanding</i>	(ID 243) <i>Water Quality Forecasting in Shrimp Cultures based on Monte Carlo Tree Search</i>	
11.30-11.45	(ID 164) <i>Applying an Improved Ant Colony Optimization to solve the Homogeneous Fixed Fleet Close Open Mixed Vehicle Routing Problem</i>	(ID 241) <i>Development of a Reinforced Concrete Design Application by Python</i>	(INV-06) Assoc. Prof. Kazuma Gotoh <i>“Analysis of Overcharged Carbon Electrodes in Lithium ion / Sodium ion Batteries Using Solid State NMR”</i>	(ID 06) <i>Optimization of CO₂ adsorption and physical properties for pelletization of zeolite 5A</i>	(ID 272) <i>Multi-Tier Model with JSON-RPC in Telemedicine Devices Authentication and Authorization Protocol</i>		
11.45-12.00	(ID 197) <i>Generative Design Approach For Product Development</i>		(INV-07) Assoc. Prof. Panart Khajornrungruang <i>“Make measurable the small-scale phenomenon on the surface by optical method”</i>	(ID 18) <i>Prediction kinetics adsorption of treatment industrial cutting fluid wastewater for pilot scale by aluminum sulfate-modified sugarcane bagasse as adsorbent</i>	(ID 274) <i>Object Detection to Assess the Carrying Capacity of Sai Kaew Beach, Thailand</i>		
12.00-13.00	Break						

Parallel Technical Session II	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7
		TRACK 2 MECHANICAL, MECHATRONICS AND CIVIL ENGINEERING	TRACK 3 FOOD, CHEMICAL AND AGRICULTURAL ENGINEERING		TRACK 5 TELECOMMUNICATIONS, COMPUTER SCIENCE, INSTRUMENTATION AND CONTROL, ELECTRICAL AND ELECTRONIC ENGINEERING	TRACK 5 TELECOMMUNICATIONS, COMPUTER SCIENCE, INSTRUMENTATION AND CONTROL, ELECTRICAL AND ELECTRONIC ENGINEERING	TRACK 7 BIO-MEDICAL ENGINEERING
Chairman		Asst.Prof.Dr. Monsak Pimsarn	Prof. Dr. Panmanas Sirisomboon		Prof.Dr. Worapong Tangsirat	Wiboon Promphanich	Assoc. Prof. Dr. Matthew Paul Gleeson
13.00-13.15		(ID 35) <i>To study the Influence of Pore Sizes distribution of mortar by using different Blaine value of Blast furnace slag</i>	(ID 104) <i>The Properties of Karanda Extract and Chitosan Coating Incorporated with Karanda (Carissa carandas Linn.) Extract</i>		(ID 22) <i>On The Realization of Grounded RL/RC Parallel Type Simulator</i>	(ID 15) <i>New Textural Features for Handwritten Signature Image Verification</i>	(ID 29) <i>Screening of ischemic stroke in ct brain using image segmentation and texture analysis</i>
13.15-13.30		(ID 146) <i>Structure analysis of automated people mover using finite element method</i>	(ID 135) <i>Optimization of Mangosteen Purée Processes on the Color Difference and Bioactive Compounds</i>		(ID 110) <i>Omnichannel User Experience (UX) in Computer-Supported Cooperative Work (CSCW): A case study on Google Docs</i>	(ID 69) <i>Train Service Planning Prototype Model For Thailand Hi-Speed Train</i>	(ID 41) <i>Automatic Sleep Data Scoring by Artificial Intelligence: A Pilot Study in Thai Population</i>
13.30-13.45		(ID 167) <i>Conditioning System of Electronic Case by Thermoelectric Peltier Module</i>	(ID 137) <i>Drying kinetics, moisture sorption isotherm and physical properties of dried pickled mustard green leaves</i>		(ID 119) <i>A Bitemporal SQL Database Design Method from the Enhanced Entity-Relationship Model</i>	(ID 84) <i>Rice Grain Classification Between Polished and Non-polished Rice by Image Processing Techniques</i>	(ID 76) <i>Performance Comparison for Different Neural Network Architectures for Chest X-ray Image Classification</i>
13.45-14.00		(ID 179) <i>Camera-Based Flame Stability Diagnosis for Pulverized Biomass Burner</i>	(ID 172) <i>Surface Temperature Limit as Food Quality Control in Automatic Learning Model for Fruit-Drying Process</i>		(ID 120) <i>A Cumulative Increasing Kernelized Nearest-Neighbor Bagging Method for Early Course-level Study Performance Prediction</i>	(ID 195) <i>Optical Hash Function for High Speed and High Security Algorithm using Ring Resonator System</i>	(ID 202) <i>Computer vision-aided CRISPR diagnostics for the detection of COVID-19</i>
14.00-14.15		(ID 204) <i>An Experimental Study of Adiabatic Two-Phase Gas-Liquid Flow in Helical Micro-Tube</i>	(ID 215) <i>Automatic shrimp and fish feeder for smart farmer in aquaculture industry</i>		(ID 127) <i>Transformation from Web Pages to Optimal Normal Form Database Schemas using a Conceptual Schema Approach</i>	(ID 198) <i>Environment Control using Forecasting Algorithm by Real time Data Analysis for Automatic Cultivation System</i>	(ID 301) <i>A new investigation into the estimation of transferred energy from a neutron source to a human's body</i>
14.15-14.30		(ID 322) <i>A Study on Biogas Production Potential in Thailand 2019</i>	(ID 124) <i>Eggs counting system by image processing and website for monitoring</i>		(ID 163) <i>Neuro-fuzzy Model with Neighborhood Component Analysis for Air Quality Prediction</i>	(ID 216) <i>Control and Management System for Closed-Environment Smart Farm</i>	(ID 317) <i>Implementation of AdaBoost Algorithm in Prediction of Chronic Kidney Disease</i>

14.30-14.45	Break						
Parallel Technical Session III	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7
	<u>SPECIAL TALK</u>		<u>TRACK 3</u> FOOD, CHEMICAL AND AGRICULTURAL ENGINEERING		<u>TRACK 5</u> TELECOMMUNICATIONS, COMPUTER SCIENCE, INSTRUMENTATION AND CONTROL, ELECTRICAL AND ELECTRONIC ENGINEERING		<u>TRACK 7</u> BIO-MEDICAL ENGINEERING
Chairman			Dr. Pimkhuan Hannanta-anan		Assoc. Prof. Dr. Norasage Pattanadech		Assoc. Prof. Dr. Matthew Paul Gleeson
14.45-15.00	<i>“AppliCAD is where innovation begins”</i>		<u>(ID 245)</u> <i>Development of Banana Pressing Machine for Enhancing Productivity of Dried Banana Processing Plants: Case Study in Phitsanulok Province, Thailand</i>		<u>(ID 63)</u> <i>Analysis of 25kW Inverter Failure in Solar Rooftop System due to Lightning at the Pharmaceutical Factory</i>		<u>(ID 324)</u> <i>A Stereographic Endoscope with Cervical Cancer Early Detection Capability</i>
15.00-15.15			<u>(ID 294)</u> <i>Removal of metal salts impurities from palm biodiesel refinery effluent using low-cost bentonite adsorbents</i>		<u>(ID 100)</u> <i>Green Hydrogen: Production Methodology, Applications and Challenges in Nepal</i>		
15.15-15.30			<u>(ID 319)</u> <i>Production of Empty Palm Bunch Biochar using Pyrolysis Assisted Microwave</i>		<u>(ID 126)</u> <i>Effect of the excitation conditions on the power generation efficiency of a Switched Reluctance Generator</i>		
15.30-15.45			<u>(ID 224)</u> <i>Fermentation of Mahachanok Mango juice mixed with pineapple juice by Lactobacillus casei 431</i>		<u>(ID 181)</u> <i>Proving of Turbine Flow Meter by Small Volume Prover With Different in Volume To Compare the Linearity for Custody Transfer</i>		

Friday, 2nd April 2021

Parallel Technical Session IV	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7
Chairman	Assoc.Prof.Dr. Tossapol Kiatcharoenpol	Asst. Prof. Dr. Sutapat Kwankaomeng	Asst.Prof.Dr.Yaneeporn Patcharavorachot	Assoc. Prof. Dr. Navaphun Kayunkid	Assoc.Prof.Dr.Chanin Bunlaksananusorn	Asst.Prof.Dr. Sathaporn Promwong	Dr. Pholchai Chotiprayanakulhong
9.00-9.15	<u>(ID 175)</u> <i>Development of Hair Serum from Local Coffee By-Product</i>	<u>(ID 261)</u> <i>Heat Transfer Enhancement and Investigation on Stirling Engine Heater with Biomass Application</i>	<u>(ID 47)</u> <i>Effect on Parboiling Process on Resistant Starch content and Glycemic Index of RD 43 rice (Oryza sativa L.)</i>	<u>(ID 92)</u> <i>Smooth Surface with U-groove Structures for Light Detecting Area of Photodetectors Using Dual-Doped TMAH</i>	<u>(ID 04)</u> <i>Exploitation of IoTs for PMU in Tethered Drone</i>	<u>(ID 312)</u> <i>Condition Monitoring Test Techniques for Medium Voltage OIP Bushings</i>	<u>(ID 121)</u> <i>The performance of Machine Learning in low resolution image classifier</i>
9.15-9.30	<u>(ID 176)</u> <i>Chlorogenic acid Extraction of Local Coffee Beans by Pulsed Electric Field</i>	<u>(ID 263)</u> <i>The Testing of V-type Alpha Stirling Engine with Regenerator and Non-Regenerator</i>	<u>(ID 70)</u> <i>Effect of organic acid immersion on Resistant Starch Content in Purple Sweet Potato (Ipomoea batatas) Starch</i>	<u>(ID 122)</u> <i>Effect of injected charges in PDMS films on triboelectric power generation</i>	<u>(ID 106)</u> <i>Detection of plantar pressure using an optical technique</i>	<u>(ID 313)</u> <i>AC Breakdown Characteristics of Different Moisture Content Pressboards Impregnated with Natural Ester</i>	<u>(ID 147)</u> <i>Real-Time control using Convolution Neuron Network for Self-Driving cars</i>
9.30-9.45	<u>(ID 228)</u> <i>The Effect of Information Technology Implementation on Supply Chain Performance through Information Sharing and Supply Chain Collaboration</i>	<u>(ID 192)</u> <i>Yellowness Index Value Prediction of Para Rubber Sheets during Hot Gas Drying from LPG Combustion by Response Surface Methodology</i>	<u>(ID 257)</u> <i>Characterization of Riceberry Rice Ice Cream Enriched with Jerusalem Artichoke (Helianthus tuberosus) Extract</i>	<u>(ID 125)</u> <i>Carrier transport properties of hetero nanostructures based on cellulose nanofibers</i>	<u>(ID 138)</u> <i>A Simple And Compact Transimpedance Mode DC Bridge Readout</i>	<u>(ID 314)</u> <i>Extremely Low-Power Fifth-Order Low-Pass Butterworth Filter</i>	<u>(ID 160)</u> <i>Robotic System for Depalletization of Pharmaceutical Products</i>
9.45-10.00	<u>(ID 200)</u> <i>Holistic Management Approach to Local Coffee Entrepreneur in Northern Thailand</i>	<u>(ID 318)</u> <i>Minimizing Variation Caused by Human-Arm Movement in a Two-Stage Tele-Sandblasting System</i>	<u>(ID 20)</u> <i>Risk Assessment and Thermal Hazard Potential of Hydrogen Peroxide with Iron (III) by DSC</i>	<u>(ID 157)</u> <i>Sol-gel Derived ZnO/Sb-doped ZnO Homojunction Double-layer Thin Film Structure</i>	<u>(ID 248)</u> <i>Estimation on Protection Distance between Digital TV in Adjacent Channel at Terrestrial Television</i>	<u>(ID 315)</u> <i>Implementation of High Level Synthesis for Adaptive FIR Filtering on Embedded System</i>	<u>(ID 162)</u> <i>Industrial automation in the cookie-sorting process on packaging line</i>
10.00-10.15	<u>(ID 201)</u> <i>Analysis of Driver's Attention through the Internet of Things (IOTs) for Preventing Road Accident of Natural Gas Vehicles</i>	<u>(ID 318)</u> <i>Minimizing Variation Caused by Human-Arm Movement in a Two-Stage Tele-Sandblasting System</i>	<u>(ID 46)</u> <i>Comparison of Pulse Electric Field-Assisted, Microwave-Assisted and Ultrasonic-Assisted Extraction Techniques for Black Rice Grain on Antioxidant and SIRT1 Enzyme-Stimulating Activity</i>	<u>(ID 178)</u> <i>Superparamagnetic Nanoparticles Encapsulation as Microdroplet by Microfluidic System for Targeted Drug Delivery</i>	<u>(ID 258)</u> <i>Implementation of RF Energy Harvesting System with Efficiency Improvement by Using Metamaterials</i>	<u>(ID 316)</u> <i>Unrepeated of Test Tap Capacitance for Installed New RIP Bushings</i>	<u>(ID 183)</u> <i>A LSTM-Based Deep Learning Method for CNC Machining Tool Life Prediction</i>

10.15-10.30	<u>(ID 287)</u> <i>Development of Intelligent Electronic Nose for Livestock Industries</i>		<u>(ID 48)</u> <i>Comparison Between the Physicochemical Properties, Bioactive Compounds and Antioxidant Activities of Thai and Chinese Garlics</i>		<u>(ID 277)</u> <i>Application of Natural Neighbor-based Algorithm on Oversampling SMOTE Algorithms</i>	<u>(ID 311)</u> <i>Electronically Tunable Differential Difference Current Conveyor Using OTAs</i>	<u>(ID 189)</u> <i>Classification of Surgical Devices with Artificial Neural Network Approach</i>
10.30-10.45	Break						
Parallel Technical Session V	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7
	<u>TRACK 1</u> INDUSTRIAL ENGINEERING AND MANUFACTURING		<u>TRACK 3</u> FOOD, CHEMICAL AND AGRICULTURAL ENGINEERING			<u>SPECIAL SESSION</u> INNOVATIVE ELECTRICAL TECHNOLOGY	<u>TRACK 8</u> ROBOTICS AND AI ENGINEERING
Chairman	Assoc.Prof.Dr. Chumpol Yuangyai		Asst.Prof.Dr. Yaneeporn Patcharavorachot				Assoc.Prof.Dr. Pitikhate Sooraksa
10.45-11.00	<u>(ID 80)</u> <i>Activity Detection for Multi-Factors of Ambulance Demand Areas: A Case Study in Bangkok</i>		<u>(ID 53)</u> <i>A Novel Extraction Technology of Curcuminoids from Turmeric Rhizomes (Curcuma Longa L.) on Curcuminoid content, antioxidant activities and Anti-Cancer (in vitro) Properties</i>			<u>(ID 305)</u> <i>Mobile Application for Basic Computer Troubleshooting using TensorFlow Lite</i>	<u>(ID 219)</u> <i>Design and Experiment of Four-side Stretch Sling-based Solar Cleaning Robot</i>
11.00-11.15	<u>(ID 23)</u> <i>Development of Green Supply Chain Risk Assessment Model for Automotive Rubber Parts Factories Using Fuzzy FMEA and Fuzzy AHP</i>		<u>(ID 59)</u> <i>Microwave assisted extraction as a rapid extraction of flavonoid, polysaccharide and triterpene from Lingzhi (Ganoderma lucidum)</i>			<u>(ID 306)</u> <i>Automatic Transfer Function Improvement based on Genetic Algorithm</i>	<u>(ID 255)</u> <i>Semantic Similarity calculation using the features from pre-trained vector and sentence level embedding</i>
11.15-11.30	<u>(ID 289)</u> <i>Defective Product Reduction in Jewelry Part Production Using Six Sigma Technique</i>		<u>(ID 94)</u> <i>Modification of a Solar Thermal Collector to Promote Heat Transfer Inside an Evacuated Tube Solar Thermal Absorber</i>			<u>(ID 307)</u> <i>A WiFi Link Budget Analysis of Drone-based Communication and IoT Ground Sensors</i>	<u>(ID 149)</u> <i>A Survey of using Computational Intelligence (CI) and Artificial Intelligence (AI) in Human Resource (HR) Analytics</i>
11.30-11.45			<u>(ID 142)</u> <i>Performance and Pollutant of a HSDI diesel engine fueled with Palm Oil Ethyl Ester</i>			<u>(ID 308)</u> <i>The Reflection and Attenuation of High-Frequency Signals in An Distribution Transformer</i>	<u>(ID 207)</u> <i>Calibration of Flexible Prism Stereo Systems</i>
11.45-12.00			<u>(ID 152)</u> <i>Utilizing Cold Energy From Liquefied Natural Gas (LNG) to Reduce The Electricity Cost of Data Centers</i>			<u>(ID 309)</u> <i>The Study of Porosity and Photoluminescence Properties of Nanoporous Silicon Layer Under Anodization Current Density Formation by Double Tank Electrochemical Etching Cell</i>	

12.00-12.15						<p>(ID 310) <i>Quantitative Experimental Evaluation of RFID Propagation channels with Wooden and Metal Books Shelves Based on Measurement Data</i></p>	
12.15-13.00	Break						
13.00-14.30	<p align="center">Poster session (https://iceast.kmitl.ac.th/2021/conference/)</p>						
14.30-15.45	Break						
15.45-16.00	<p align="center">Main meeting room</p>						
	Closing Ceremony and Award						