

## LIST OF ORAL PRESENTATIONS

### 1. Alternative Energy and Combustion (AEC)

No.	Present ID	Title
1	AEC0001	Improvement of a Hot Water Producing System in a Chili Sauce Manufacturing Facility
2	AEC0002	An Experimental Investigation of ABE-Diesel Blend on Performance, Combustion, and Emissions of a Single-Cylinder Diesel Engine
3	AEC0003	Influences of Alternative Diesel Fuels on Tailpipe Emissions and Particulate Matter under the Highway Fuel Economy Test Cycle
4	AEC0004	Wood Vinegar Production from Cassava Rhizome by Downdraft Gasifier
5	AEC0006	Thermal Performance of Heat Pump Dryer Using R32 as Refrigerant
6	AEC0007	Torrefaction of oil palm frond using dry flue gas
7	AEC0008	Design of Small Wind Turbines to Produce Electricity for Low Wind Speed in Thailand
8	AEC0009	Analyzing esterification kinetics of model bio-oil with ethanol catalyzed by green catalyst
9	AEC0010	Investigation on Continuous FAME Production using Rotor Reactor with Bumpy Number Variation under Theoretical Methanol to Oil Molar Ratio Condition
10	AEC0011	Improvement of Combustion Efficiency for Synthetic Natural Gas Flames on IDF Axial Burner
11	AEC0012	Properties of Roof Tiles Produced from Agricultural Residue Materials
12	AEC0013	Design and Fabrication of a Solar-Dish Concentrator with 2-Axis Solar Tracking System
13	AEC0014	Results of the measurement of SOFC fuel cell stacks under pressure conditions

## 2. Automotive, Aerospace and Marine Engineering (AME)

No.	Present ID	Title
1	AME0001	Takeoff Performance Analysis of a Light Amphibious Airplane
2	AME0003	Investigation of Loose Contact Oxidation Kinetic Analysis on Diesel Particulate Filter's Wall Surface Using Non-isothermal TGA Technique
3	AME0004	Design for Crash Safety of Electric Heavy Quadricycle Structure
4	AME0005	Survey on the Effects of Bumpy Road to Oscillate of Multi-Purpose Forest Fire Fighting Vehicle
5	AME0006	Performance Analysis of an Electric Car When Using Different Battery Types
6	AME0007	Characterization of metal oxide ashes in diesel particulate filter utilizing electron microscopy
7	AME0008	Analysis of aluminum front bumper beam for heavy quadricycles under impact loading
8	AME0009	A Comparative Study of Equivalent Circuit Models for a Li-ion Battery Pack of an Electric Tuk-Tuk
9	AME0010	A Fuzzy Controller for Two Energy Storage Management System in Electric Bicycle
10	AME0011	Three-dimensional Effects on the Performance of Multi-Level Overtopping Wave Energy Converter
11	AME0012	Fuzzy-Based Potential Field Collision Avoidance Technique for Unmanned Surface Vehicles
12	AME0013	Parametric study of composite wing box for high altitude platform using finite element analysis
13	AME0014	Investigation of Power Transfer Efficiency Using Different Design Coils in Wireless Charging for Electric Vehicles
14	AME0015	Detection of Driver Drowsiness from EEG Signals Using Wearable Brain Sensing Headband
15	AME0016	Study of Aerodynamic Characteristics of a Passive Morphing Airfoil

### 3. Applied Mechanics, Materials and Manufacturing (AMM)

No.	Present ID	Title
1	AMM0001	Study of 3D Printing to Forming Spoke of Non-Pneumatic Tire using Finite Element Method
2	AMM0002	Damage of Punch/die Tools in Steel Wire Rod Shear Cutting
3	AMM0003	Effect of Feed Sprue Size on Porosity Defects in Platinum 950 Centrifugal Investment Castings via Numerical Modelling
4	AMM0004	Effect of Al <sub>2</sub> O <sub>3</sub> nanoparticle additives on the performance characteristics of rough journal bearings
5	AMM0005	Comparison of Two Different Surfaces for Rolling Airless Tire by Finite Element Method
6	AMM0006	Development of Cassava Pulp Belt Filter-press Squeezing Machine
7	AMM0007	Analysis and Optimization of Adhesive-Bonded Tubular-Coupler joint with Variable Stiffness Composite Adherend under Tension and Torsion Loadings
8	AMM0008	Development of a Herbal Cream Mixer with a Homogenizer-Stirrer and Circulating Water Cooling System
9	AMM0009	Numerical Study on Bending Response of Auxetic 2D-Lattice Plates
10	AMM0010	STEEL FIBER / POLYETHYLENETEREPHALATE COMPOSITES
11	AMM0011	Weldability and Thickness Study of Electroless Nickel Coating on Aluminium Conductor for Li-ion Battery Pack
12	AMM0012	Vision-based Automatic Leakage Test for Short Pipes in Waterworks Industry
13	AMM0013	An Investigation of Hybrid AL/CFRP Tubes with Fiber Orientation Angle Parallels to Its Axis
14	AMM0014	Sintered Fe-Cr-Mo-Si-C alloys produced from pre-alloyed Fe-Cr based powders admixed with 4% SiC for high performance applications
15	AMM0015	Indoor air spray paint robot (acrylic emulsion paint)
16	AMM0016	Effect of molybdenum on the microstructure and mechanical behavior of the sintered Fe-Mo-Mn-Si-C alloy
17	AMM0017	Effect of carbon content on microstructure and mechanical properties of sintered Fe-Mo-Mn-C alloys
18	AMM0018	FEM model of protection bullet helmet made from composite material
19	AMM0019	The Study on the characterization of sintered hot forging and austenite stainless steels
20	AMM0020	Comparative study on the wood-based PLA fabricated by compression molding and additive manufacturing
21	AMM0021	Influences of cooling rate and carbon content on microstructure and mechanical properties of sintered Fe-1.5Mo-xC alloys
22	AMM0022	Sintered Fe-Mo-Mn-Si-C alloys
23	AMM0023	Sintered Fe-Ni-Si-C alloys
24	AMM0024	Sintered 316L/Cu/h-BN composites
25	AMM0025	Phase transformation and mechanical properties of sintered Fe-Mo-Si-C-(Cu) alloys
26	AMM0026	Recording and analysis of exercise ergonomics in running cases using microcontroller
27	AMM0027	Development of Creep Testing Machine and Validation Cases of ASTM A36 Steel Property

#### 4. Biomechanics and Bioengineering (BME)

No.	Present ID	Title
1	BME0001	Characteristic and geometry analysis for soft robotic fingers by fully 3D printing with commercial silicone rubber
2	BME0002	Evaluation of Conventional Invasive Measurements and Examination of Non-Invasive Measurement Technique on Human Body Core Temperature
3	BME0003	Numerical Simulation of Tooth Extraction Socket: Alveolar Bone Regeneration
4	BME0004	Numerical Simulation of Skin Formation: Epidermal Stem Cells and Undulation of the Basal Layer
5	BME0005	The Design of Functional Mechanical Hand Device for Spasticity Hand Functions
6	BME0006	Influence of Axial Force and Characteristics of Axial Force Affecting on Total Knee Replacement Constraint Test
7	BME0007	Design of Microfluidic System for Detecting Percentage Parasitemia of Malaria-Infected Red Blood Cells Using Impedance Measurement
8	BME0008	Comparative Study of Kinematics and Kinetics between Normal Knee and Total Knee Arthroplasty during Squatting
9	BME0009	Effect of Insert Conformity to Contact Stress in Total Knee Replacement: Finite Element Analysis
10	BME0010	Experimental Investigation on Durian Thorns
11	BME0011	Effects of The Environment on Thermo Physiological Responses via 3D Human Eye Model with Porous Media Heat Transfer Theory Under Inconstant Solar Irradiation

## 5. Computation and Simulation Techniques (CST)

No.	Present ID	Title
1	CST0001	Assessment of Turbulence Models for Low Turbulent Natural Convection Heat Transfer in Rectangular Enclosed Cavity using OpenFOAM
2	CST0002	Evaluation of Wall Functions for RANS Turbulence Models by Unsteady Lid-Driven Cavity Flow
3	CST0003	Numerical Simulation of Flow over a Passive Disturbance and Backward-Facing Step
4	CST0004	An Optimization Approach in Trough Angle Selection of Conveyor Five Roll
5	CST0005	Design of Opener Shape for Improving Gimbal Tongue Shift on Y Axis
6	CST0006	Computational Analysis of Directly Irradiated Annular Pressurized Receiver (DIAPR) for a Solar Tower
7	CST0007	Crash Analysis of Sandwich Composite Electric Microbus
8	CST0008	Computational study of the flow field characteristics of the radial-swirl burners for a small gas turbine
9	CST0009	Stress Analysis in Upper Fillet and Rail-End Bolt Hole at Rail Joint
10	CST0010	Two-dimensional axisymmetric numerical study of the premixed combustion inside the porous media burner
11	CST0011	Motion Analysis Method of Mechanical System with Contact and Plastic Deformation
12	CST0012	Effect of Interference on the Press Fitting of Railway Wheel and Axle Assemblies
13	CST0013	Numerical Study on Heat Transfer and Entropy Generation of Nanofluid Flow in Round Tube with Inclined Ring Ribs
14	CST0014	Numerical simulations of cancer treatment prediction: modeling the influence of immunity
15	CST0015	Effect of Audio Pre-processing Technique for Neural Network on Lung Sound Classification
16	CST0016	System Identification Approach for Autoregressive Exogenous Model on Small Unmanned Surface Vehicle
17	CST0017	Assessment of rice production in Malaysia using Remote Sensing
18	CST0018	Proposal of a system using a driving simulator to demonstrate human-machine interaction in an emergency
19	CST0019	Structural Analysis of Three-Dimensional Finite Element Model to Design Multifunction Wheel Chair for Patients

## 6. Dynamic Systems, Robotics and Controls (DRC)

No.	Present ID	Title
1	DRC0001	Concept and Prototype of the Pure Intonation Ensemble System
2	DRC0002	Line Tracking Control of Royal Thai Air Force Nursing Mobile Robot Using Visual Feedback
3	DRC0003	LTV-FIR command prefiltering for vibration reduction of a flexure-jointed X-Y motion stage with payload variation
4	DRC0004	Emulation of Battery Discharge Behaviour Using Programmable Power Supply Based on LabVIEW
5	DRC0005	Self-Making of Wind Tunnel with Lowering Noise and Consideration of Aerodynamic Noise Generation Mechanism in wind Tunnel Experiments
6	DRC0006	Study of Passive Damping Systems Using Giant Magnetostrictive Materials by Collision Mechanism
7	DRC0007	A Behavior Analysis of a Flexible Payload Constrained to Trajectory using Feedforward Anti-Sway Control Method
8	DRC0008	Penetration-Force Estimation Approach for a Flexure-Jointed Micro-Injection Mechanism with Lorentz Force Actuation
9	DRC0009	Real-time Feedback Control during Fiber Laser Welding of Low Carbon Steel Sheets
10	DRC0010	Orbital Control for Cube Satellites
11	DRC0011	Automatic Precision Docking for Autonomous Mobile Robot in Hospital Logistics - Case-study: Battery Charging

## 7. Engineering Education (EDU)

No.	Present ID	Title
1	EDU0001	The Development of Orthographic Projection Worksheet based on 5E Learning Model and Augmented Reality
2	EDU0002	Development of Learning Materials for Automatic Control Course
3	EDU0003	Stress assessment of online education based on physiological psychology using wearable device

## 8. Energy Technology and Management (ETM)

No.	Present ID	Title
1	ETM0001	Enhanced thermal performance in square-duct heat exchanger with inclined square-rings
2	ETM0002	The Effect of the Number of Blades on the Characteristics of Compressed Air Wind Turbines Using R1235 Airfoil Blade Profile
3	ETM0003	Availability and Reliability Evaluation of Cooling System in Data Center: A Case Study of International Standards
4	ETM0004	Experimental Investigation of Pressure Drop of Water Flow in a Double Vertical Coils and Shell Heat Exchanger Induced by 28 kHz Ultrasound
5	ETM0005	Thermodynamic and Economic Analysis of Power Generation from Gas Turbine Exhaust
6	ETM0006	Investigation of Pressure Loss in Circular Pipe under Ultrasonic Waves Released along Main Stream Flow
7	ETM0007	Energy Efficiency Evaluation from Micro Trip Database of HDV Bus Tracking System: Impacts of Topography
8	ETM0008	Development of Must Flow Dryer for Shallot ( <i>Allium ascalonicum</i> ) Processing
9	ETM0009	Numerical Investigation of Air Flow in a Vertically Paddy Bed Dryer using Computational Fluid Dynamics
10	ETM0010	Thermodynamic and Economic Analysis of Molten Salt Thermal Energy Storage System
11	ETM0011	Energy Management of Precooling Process for Green Cabbages
12	ETM0012	Photovoltaic Forecasting model in Thailand: Case study Solar Farm at Nakhon Ratchasima province
13	ETM0013	Numerical Study of Performance Augmentation of a Vertical Coil and Shell Heat Exchanger using High Frequency Ultrasonic Waves
14	ETM0014	Effect of Low Frequency Ultrasonic Waves on Heat Transfer of Laminar Water Flow over Heating Flat Plate
15	ETM0015	The energy harvester investigation in exercising by using the piezoelectric effect
16	ETM0016	Potentials of using the Direct Ethanol Fuel Cell (DEFC) as Backup Electricity for Renewable Energy System
17	ETM0017	Study on Influence of Wire Mesh Stainless Porous Material for Lingzhi Mushroom Hot Air Drying
18	ETM0018	Simulation of the variable assembly of MGT-SOFC systems to optimize the mechanical efficiency
19	ETM0019	Forecasting energy consumption of electric bus from internal combustion bus data in Thailand

## 9. Thermal System and Fluid Mechanics (TSF)

No.	Present ID	Title
1	TSF0001	Coupling of 1D Simulation Model and CFD Model for the Pressure Relief Valve in the High-Pressure Pump
2	TSF0002	High Efficiency Solar Panel with Heat pipe
3	TSF0003	Analyze Open Channel for Continuously Low Speed used Carbon Dioxide Bubbles
4	TSF0004	Effect of Sodium Hydroxide Solution Concentration on Liquid Entrainment in a Steam Boiler
5	TSF0005	Investigation of thermal stratification in a thermal storage tank with curve edge obstacle plate
6	TSF0006	The Proper Orthogonal Decomposition and Dynamic Mode Decomposition of Minimal Channel Flow
7	TSF0007	Numerical Simulation and Parametric Study of Very High-Temperature Gas-Cooled Reactor (VHTR) Fuel Assembly
8	TSF0008	Numerical Study on Performance of Crossover Jet Impingement Cooling at Trailing Edge of Gas Turbine Blade with and without Rotation
9	TSF0009	A Mathematical Model of Laser Drilling with Laser Absorption in the Plasma
10	TSF0010	Thermal Efficiency Enhancement of High Pressure Gas Stove for Noodle Pot by Using Steel Wire Net Porous Material
11	TSF0011	A Study of Aerodynamic Performance of an Adaptive Spoiler
12	TSF0012	Improvement of Estimation method for Battery Cells Heat Generation
13	TSF0013	Flow Visualization and Heat Transfer Characteristics of Refrigerant Gas-liquid Two-phase Flow Passing through Fine Rectangular Grooves in the Evaporation Process
14	TSF0014	Scalability of Finite Surface Method in High Reynolds Number Flows