

Program

Wednesday, June 12

- 8:00-8:30** **Registration**
Venue: Foyer Mandarin A
- 8.30 – 9.00** **Opening ceremony**
- Welcome Speech**
by **Stefan Mozar, Vice President Operations, IEEE Consumer Electronics Society**
- Welcome Speech**
By **Assoc. Prof. Dr. Ekachai Leelarasmee, IEEE Thailand Section Past Chair**
- Conference Report**
by **Assoc. Prof. Dr. Supavadee Aramvith, IEEE ICCE-Asia 2019 General Co-Chairs**
Venue: Mandarin A
Chair: **Patamaporn Sripadungtham**
- 9:00 - 10:00** **Keynote speaker I**
Mr. Reeyan Lee, CTO, Mind AI
“Democratization and ethics in AI”
Venue: Mandarin A
Chair: **Patamaporn Sripadungtham**
- 10:00 - 10:30** **Group photo/ Refreshment break**
Venue: Foyer
- 10:30 - 11:30** **Keynote Speaker II**
Dr. Akihiko K. Sugiyama,
IEEE Signal Processing Society Industry Distinguished Lecture
“History of Personal Media Terminals: From Walkman to Apple Watch”
Venue: Mandarin A
Chair: **Kingkarn Sookhanaphiban**
- 11:30 - 12:30** **Best Paper Session**
Venue: Mandarin A
Chairs: Poompat Saengdomlert and Rhandley D. Cajote
1. [23] JPEG XT Image Compression with Hue Compensation for Two-Layer HDR Coding
 2. [11] A Depth-Assisted Deblurring Flow Using Dual Cameras with Different Exposure Times
 3. [37] Distortion Model based on Perceptual of Local Image Content
- 12:30 - 14:00** **Lunch Buffet**
Venue: Krua Luang Restaurant

- 14:00 - 14:10** ICCE-Asia/Region 10 Industry Forum
Opening by Stefan Mozar
- 14:40 – 15:10** ICCE-Asia/Region 10 Industry Forum
- Keynote Speaker V**
Value Creation of Embedded System in Thailand: Innovation and Solution
Dr. Wiwat Wongwarawipat
Instep Group
- Venue:** Mandarin A
Chairs: Supavadee Aramvith and Karel Sterckx
- 15.00 -15.30** Refreshment break
Venue: Foyer
- 15.30 -16.40** ICCE-Asia/Region 10 Industry Forum
Panel discussion: How Artificial Intelligence & the Internet of Things will transform Industries.
- Panelists**
- Asst. Prof. Dr. Supachai Vorapojpisut, TESA Vice President**
Dr. Wiwat Wongwarawipat, Instep group
Stefan Mozar, Dynexsis, Australia
- Venue:** Mandarin A
Chairs: Supavadee Aramvith and Karel Sterckx
- 16.30-16.40** Closing remarks

Thursday, June 13

9:00 - 10:30

Keynote speaker III

Prof. Yoshikazu Miyanaga, Hokkaido University

“Noise Robust Speech Recognition Robot with Psychoacoustic Effect”

Keynote Speaker IV

“IEEE Standards - Driving Global Innovation Through Standards and Consensus Building”

Mr. Srikanth Chandrasekaran

IEEE Standard Association

Venue: Mandarin A

Chair: Rhandley D. Cajote

10:00 - 10:30

Refreshment break

Venue: Foyer

10:30 - 12:00

Technical Session

Session 2: Poster & Demonstration Fast Forward Session

Venue: Mandarin A

Chair: Karel Sterckx

1. [5] Virtual Flight Controller Using Acceleration Sensor
2. [16] Early classification of Alzheimer's Disease using Multi-modality imaging and Apolipoprotein-E of biomarker
3. [24] Maximum Sustained Wind Speed Simulation of Storm Surge with Long Short-Term Memory
4. [61] An Image-Based Identification System of Bubalus Bubalis Using Image Processing Feature Extraction by Linear Discriminant Analysis
5. [81] Determination of Adulteration in Philippine Coconut Wine using Principal Component Analysis and Soft Independent Modelling of Class Analogy
6. [83] Hand Gesture Recognition for Deaf-Mute using Fuzzy-Neural Network
7. [69] Intelligent Vehicle Monitoring and Passenger Information System for Yangon Bus Service
8. [40] UWB Power Penetration Inside a Realistic Human Head Model
9. [73] Chipless RFID Reader for Wide Range Applications
10. [52] Fall decision algorithm based on changeable velocity SVM threshold
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12. [25] Fusion Technology of 3D Point Cloud Map for Objects Classification
13. [26] An Approach to Non-contact Monitoring of Respiratory Rate and Breathing Pattern Based on Slow Motion Images
14. [27] Competence Investigation of Noise Detecting Procedure Found on TTSD (Triple Threshold Statistical Detection) filter for SPN
15. [43] Inception Based Image Super-Resolution using Neural Network
16. [100] Image Enhancement and Quality Assessment Methods in Turbid Water: A Review Article

17. [49] Formalin Adulteration Detection in Food Using E-nose based on Nanocomposite Gas Sensors
18. [91] Design and Implementation of an Intravenous Infusion Control and Monitoring System
19. [3] A Practical Design Approach for Single-Inductor Multiple-Output (SIMO) DC-AC Inverter

12:00 - 13:30 **Lunch Buffet**
Venue: Krua Luang

13:30 - 15:00 **Tutorial session:**
How to write quality papers
 Prof. Takao Onoye & Prof. Yoshikazu Miyanaga
Venue: Mandarin A
Chair: Supavadee Aramvith

Technical Session
Session 3: Artificial Intelligent and Machine Learning for CE Applications (AIM-1)
Venue: Kannika
Chair: Charnchai Pluempitiwiriyavej

1. [12] Compressing DNN Parameters for Model Loading Time Reduction
2. [14] HOG feature extraction from encrypted images for privacy-preserving machine learning
3. [17] Illumination Invariant thermal Face Recognition using convolutional neural network
4. [89] Exploring Deep Learning-based Branch Prediction for Computer Devices

Session 4: Wireless & Network Technologies (WNT)
Venue: Rodsukon
Chair: Htoo Maung Maung

1. [82] Minimum SNR Requirement for Mobile Cloud Computing
2. [92] Multi-user Secrecy SWIPT for 5G OFDMA Networks with Particle Swarm Optimizations
3. [18] Impact of Slotframe Length on End-to-End Delay in IEEE 802.15.4 TSCH Network
4. [94] Validation of SDN Emulator Based on Mininet and ONOS Controller for IEC 61850 Packet Delay Measurement

Session 5: Internet of Things & Internet of Everywhere (IOT)
Venue: Pornphailin
Chair: Jennifer Dela Cruz

1. [46] Application of Electronic Nose Stations for Air Quality Monitoring in a Brewery
2. [41] Ambient Mode: A Novel Service and Intelligent Control based on User Awareness using BLE and Wi-Fi

3. [98] A Smart Sensor Node with Smartphone Based IoMT
4. [97] Development of IoTcloudServe@TEIN Smart-Energy@Chula Service Gateway: Case Study of Secured On-Demand Building Energy Management System Data Platform Using NETPIE
5. [47] Monitoring the Freshness Level of Beef Using Nanocomposite Gas Sensors in Electronic Nose

15:00 - 15:30 Refreshment break
Venue: Foyer

15:30 - 17:00 Technical Session
Session 6: Artificial Intelligent and Machine Learning for CE Applications (AIM-2)
Venue: Kannika.
Chair: Poompat Saengudomlert

1. [19] An Adaptive Parts Counting Method based on Orthogonal Intensity Distribution Analysis for Industrial Vision Systems
2. [48] A fast CU depth estimation algorithm for HEVC inter coding
3. [53] Classification using Support Vector Machine to Detect Cyberbullying in Social Media for Myanmar Language
4. [60] Feature-based and Deep Learning-based Classification of Environmental Sound

Session 7: Entertainment, Gaming, and Virtual and Augmented Realty (EGV)
Venue: Rodsukon.
Chair: Worawat Choensawat

1. [45] Relations between Femininity and the Movements in Japanese Traditional Dance
2. [51] Promoting Emotions with Angry Birds-like Gameplay on Rube Goldberg Machine Levels
3. [72] A Perception-based Quality Metric for Omnidirectional Images
4. [29] Using a Virtual Reality System to Improve Quality of Life of the Elderly People with Depression

Session 8: AV Systems, Image and Video, and Cameras and Acquisition (AVS)
Venue: Pornphailin
Chair: Romuald Jolivot

1. [22] A Noise-aware Enhancement Method for Underexposed Images
2. [70] Occluded Facial Recognition with 2DPCA based Convolutional Neural Network
3. [71] Image Processing for Segmentation of Dorsal Striatum from Magnetic Resonance Images
4. [62] Portable Blood Typing Device Using Image Analysis

18:30 - 21:00 **Banquet** (Western course dinner)
Venue: Mandarin C
MC: Patamaporn Sripadungtham

Friday, June 14

9:00 - 10:30 **Technical Session**
Session 9: Artificial Intelligent and Machine Learning for CE Applications (AIM-3)
Venue: Kannika
Chair: Poompat Saengudomlert

1. [76] Automatic Beam Steering Calibration by Machine Learning Method for Phased Array Radar System
2. [80] Impacts of Artefacts and Adversarial Attacks in Deep Learning based Action Recognition
3. [84] Measurement of Operator Utilization in DNN HW accelerator based on SoC Virtual Platform
4. [99] A.I. in Laser Diode Module Manufacturing

Session 10: Other Technologies related to CE (MIS-1)
Venue: Rodsukon
Chair: Romuald Jolivot

1. [1] Stability-Guaranteed Odd-Order Notch-Width System Design Employing Unity-Bounded Function
2. [13] Tour Miner: Mining System of Tour Plans from SNS - Extraction of Travel Records from Check-in Information
3. [96] Reforming Warning and Obstacle Detection Assisting Visually Impaired People on mHealth
4. [90] Development of Automated LED Light Compensation System for Lycopersicon Esculentum

Workshop I
ROS for Mobile Robot Applications
By Asst. Prof. Dr. Thavida Maneewarn
Venue: Pornpailin

Poster/Demo set up
Venue: Mandarin A

10:30 - 10:45 **Refreshment Break**
Venue: Foyer

10:45 - 12:15

Technical Session

Session 11: Other Technologies related to CE (MIS-2)

Venue: Kannika

Chair: Kingkarn Sookhanaphiban

1. [79] Improvement on the Progress Investigation of Ishikawa Mixing and Grinding Machine Using Current Measurement System
2. [63] Respiratory Inductance Plethysmography for Long-Distance Medical Consultation Using Mobile Application for Android Smartphones
3. [95] Study of Relationship between QoS and QoE for Web Services with Parallax Effect
4. [59] Implementation of Novel Fractional Powered Binomial Filter (FPBF) in UPMC Based 5G

Workshop I (Cont.)

ROS for Mobile Robot Applications

By Asst. Prof. Dr. Thavida Maneewarn

Venue: Pornphailin

Poster/Demo set up

Venue: Mandarin A

12:00 - 13:30

Lunch Buffet

Venue: Krua Luang

13:30 - 16:00

Workshop II

LoRaWAN and its Application for IoT

By Asst. Prof. Dr. Rardchawadee Silapunt

Venue: Rodsukon

Technical Session

Session 12: Poster/Demo Session

Refreshment break

Venue: Mandarin A

Chairs: Patamaporn Sripadungtham and Rhandley D. Cajote

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