







# The 4<sup>th</sup> International Conference on Advanced Information Technologies (ICAIT 2020) Program

# Day 1: November 4, 2020 (Wednesday)

8:30-9:00	Online Reception
	Opportunity for a camera and microphone test
9:00-9:35	Opening Ceremony
	Opening Speech by Union Minister of MoE
	Opening Remark by Chairman of NEPC
	Welcome Speech by the Rector, UIT
	ICAIT 2020 Program Committee Report by PC Chair
9:35-9:40	ICAIT 2020 Photo Session
9:40-10:00	BREAK

# Session 1-1: 10:00-11:40

Theme: Computational Intelligence & AI-I

Chair: Prof. Yoshinori Kuno

Effect of QoS Control for Cooperative Work between Remote Robot Systems with Force Feedback (#20001)

Kazuya Kanaishi, Yutaka Ishibashi, Pingguo Huang, Yuichiro Tateiwa

Understanding Non-native English Speakers' Perceptions of Voice User Interfaces with and without a Visual Display: A Usability Study (#20015)

**Aung Pyae**, Swe Zin Hlaing, Nyein Thwet Thwet Aung, Nang Mo Mo Kham, Myo Myo Khant, Min Khant Kyaw

Statistical Machine Translation, Ripple Down Rules and Hidden Markov Model for Burmese Romanization (#20035)

Wint Theingi Zaw, Ye Kyaw Thu, Shwe Sin Moe, Nyein Nyein Oo, Thepchai Supnithi

Informational Analysis of Go, Part 2: Zuozi and Huanqitou (#20053)

Wu Yicong, Chang Liu, Mohd Nor Akmal Khalid, Hiroyuki Iida

11:40-13:00 LUNCH BREAK









#### Session 1-2: 10:00-11:40

Theme: Big Data & Blockchain Technologies

Chair: Prof. Khin Mar Soe

CIMLA: Checkpoint Interval Message Logging Algorithm in Kafka Pipeline Architecture (#20004)

Thandar Aung, Hla Yin Min, Aung Htein Maw

Blockchain Based Digital Identity Management System: A Case Study of Myanmar (#20007)

May Htet, Phyo Thet Yee, Jay R. Rajasekera

Semantic Layer Construction for Big Data Integration (#20058)

Nang Kham Soe, Tin Tin Yee, Ei Chaw Htoon

Performance Evaluation of M/D/1 Queuing Model on Hyperledger Fabric (#20059)

Khin Su Su Wai, Ei Chaw Htoon, Nwe Nwe Myint Thein

#### 11:40-13:00 LUNCH BREAK

# Session 2-1: 13:00-14:40

Theme: Simulation and Modeling in Software Approach

Chair: Prof. Win Zaw

Multi-Criteria Decision Analysis in Urban Transport System by applying Function Resonance Analysis Method (#20016)

Shin Mon Phyo, Swe Zin Hlaing, Myint Myint Lwin

Prediction of Natural Gas Final Consumption using Artificial Neural Networks (#20024)

Khaing Su Yin, Su Su Htay

Predicting Customer Class using Customer Lifetime Value with Random Forest Algorithm (#20047)

Than Than Win, Khin Sundee Bo

Trend Extraction from High Dimensional Stock News based on Markov Chain (#20050)

Ei Thwe Khaing, Myint Myint Thein, Myint Myint Lwin









# Session 2-2: 13:00-14:40

Theme: NLP & Machine Learning

Chair: Prof. Win Pa Pa

Myanmar Sign Language Classification using Deep Learning (#20020)

Sai Myo Htet, Bawin Aye, Myo Min Hein

Comparison of Supervised Machine Learning Models for Categorizing E-Commerce Product Titles in Myanmar Text (#20061)

Khin Yee Mon Thant, Khin Thandar Nwet

Multi-Aspect Attention Model for Aspect-based Sentiment Classification using Deep Learning (#20063)

Win Lei Kay Khine, Nyein Thwet Thwet Aung

Increasing SMT and NMT Performance by Corpus Extension with Free Online Machine Translation Services (#20065)

Zar Zar Hlaing, Ye Kyaw Thu, Thepchai Supnithi, Ponrudee Netisopakul

# **14:40-15:25** Keynote Speech

Cyber-Physical Spaces: A challenge for Software Engineering

Dr. Carlo Ghezzi

Emeritus Professor, DEIB-Politecnico di Milano, Italy

Chair: Prof. Koichiro Ochimizu

15:25-15:40 BREAK









# Session 3-1: 15:40-17:20

**Theme: Distributed and Cloud Computing** 

Chair: Prof. Khine Moe Nwe

Analysis of Intersection Traffic Light Management System in Mandalay City (#20008)

Ei Ei Moe, Tin Maung Wynn, May Zin Oo, Nay Min Htaik

Resource Aware Placement of IoT Devices in Fog Computing (#20017)

Khin Nandar Tun, Aye Myat Myat Paing

EAC: Encryption Access Control Scheme for Policy Revocation in Cloud Data (#20033)

Phyo Wah Wah Myint, Swe Zin Hlaing, Ei Chaw Htoon

Improved Job Scheduling for Achieving Fairness on Apache Hadoop YARN (#20067)

Thet Hsu Aung, Wint Thida Zaw

#### Session 3-2: 15:40-17:20

**Theme: Database Technology and Data Mining** 

Chair: Prof. Nang Sai Moon Kham

Grape Leaf Diseases Classification using Convolutional Neural Network (#20018)

Khaing Zin Thet, Khine Khine Htwe, Myint Myint Thein

An Improvement of Apriori Mining Algorithm Using Linked List Based Hash Table (#20036)

Zin Mar, Khine Khine Oo

Enhancement of Query Execution Time in SPARQL Query Processing (#20038)

Khin Myat Kyu, Aung Nway Oo

Combination of ARMA and BPNN Model to predict Rice Type and Rice Price (#20043)

Thura Zaw, Aung Nway Oo, Swe Swe Kyaw









# The 4<sup>th</sup> International Conference on Advanced Information Technologies (ICAIT 2020) Program

# Day 2: November 5, 2020 (Thursday)

8:30-9:00	Online Reception
	Opportunity for a camera and microphone test
9:00-9:45	Invited Talk 1
	Supports to Remote Robots by Humans with Force Feedback
	Prof. Yutaka Ishibashi
	Nagoya Institute of Technology, Nagoya, Japan
	Chair: Prof. Hiroyuki Iida
9:45-10:30	Invited Talk 2
	Artificial Intelligence in Signal Processing
	Prof. Tetsuya Shimamura
	Saitama University, Japan
	Chair: Prof. Hiroyuki Iida

# Session 4-1: 10:30-12:10

Theme: Computational Intelligence & AI-II

Chair: Prof. Yutaka Ishibashi

Element Fill-in-Blank Problems in Python Programming Learning Assistant System (#20012)

Hsu Wai Hnin, Khin Khin Zaw

Attractiveness of Single-Agent Game: Case Study Using Sliding Puzzle (#20039)

Chang Liu, Shunqi Huang, Mohd Nor Akmal Khalid, Hiroyuki Iida

Analysis of Jump & Jump Game and Its Possible Enhancement (#20051)

Hong Ri, Mohd Nor Akmal Khalid, Hiroyuki Iida

Analysis of Single-Agent Game: Case Study Using Minesweeper (#20052)

Wu Tingting, Huang Shunqi, Htung Pa Pa Aung, Mohd Nor Akmal Khalid, Hiroyuki Iida

12:10-13:30 LUNCH BREAK









#### Session 4-2: 10:30-12:10

**Theme: Computer Vision and Image Processing** 

Chair: Assoc. Prof. Komuro Takashi

Task Distribution Method for Index Classification Based on Color Segmentation in Remote Sensing (#20027)

Yan Naing Htun, Bawin Aye, Aung Aung

An Effective Trespasser Detection System using Video Surveillance Data (#20028)

Wine Myat Chal, Khine Thin Zar

Feature Based Human Activity Recognition using Neural Network (#20031)

Win Myat Oo, Bawin Aye, Myo Min Hein

Vision Based Vehicle Information Inspection System Using Deep Learning (#20032)

**Kyaw Min Han**, Bawin Aye, Hlaing Moe Than, Chan Pyae Linn

Eigenface based Facial Expression Recognition (#20066)

Hla Myat Maw, Soe Myat Thu, Myat Thida Mon

### 12:35-13:30 LUNCH BREAK

## Session 5-1: 13:30-15:10

**Theme: Advanced Network Systems and Security** 

Chair: Assoc. Prof. Ling Teck Chaw

Comparative Analysis of Video Streaming in Software Defined Networking (#20054)

**Hla Myo Su**, Aung Htein Maw

Flow based Traffic Scheduling in Software Defined Network (#20062)

Ohmmar Min Mon, Myat Thida Mon

An Investigation of Delay-guaranteed Mechanism in Wi-Fi Networks with Multiple Traffic Flows (#20068)

Hiroaki Motohashi, Kien Nguyen, Hiroo Sekiya

Enhancing Secure Digital Communication Media Using Cryptographic Steganography Techniques (#20069)

Bo Bo Oo, May Thu Aung









# Session 5-2: 13:30-15:10

**Theme: Communication and Digital Signal Processing** 

Chair: Prof. Tetsuva Shimamura

A GUI based Self-learning Tool for Polar Codes using Successive Cancellation and List Decoders (#20010)

Rafee Al Ahsan, Sunita Khichar, Watid Phakphisut, Lunchakorn Wuttisittikulkij, Audsadang Ngamjob, Pruk Sasithong, Ambar Bajpai, Muhammad Saadi, Amir Parnianifard, Irfan Ullah, May Pyone Han, Wai Phyo, Pisit Vanichchanunt

Analysis on Ground Clutter Mitigation Using IIR Filter and Frequency Domain Filters for C-Band Phased Array Weather Radar (#20014)

Hnin Pwint Phyu, Kyaw Soe Lwin, Twe Ta Oo, Pwint Thu Aung

An Enhanced RSS Fingerprinting-based Wireless Indoor Positioning using Random Forest Classifier (#20040)

Nyein Aye Maung Maung, Baby Yaw Lwi, Soe Thida

Regions of Interest (ROI) Analysis for Upper Limbs EEG Neuroimaging Schemes (#20046)

Khin Pa Pa Aung, Khin Htar Nwe