ICGEC-2024

The 16ᵗʰ International Conference on Genetic and Evolutionary Computing

August 28-29, 2024

Miyazaki Kanko Hotel, Miyazaki, Japan

Conference Program

ICGEC2024 International Conference Program – Day 1

Time	August 28, 2024 (Wednesday) Miyazaki Kanko Hotel: All Venues, 2F, East Wing		
8:30 | 9:00	Registration		
9:00 | 9:10	Opening Ceremony (Room: HIMUKA)		
9:10 | 9:40	Keynote Speech (I) *Professor Tsuyomu Ikenoue,* President, Kyushu Medical Science University, Japan		
9:45 | 10:15	Keynote Speech (II) *Professor Jeng-Shyang Pan,* Professor, Nanjing University of Information Science and Technology, China		
10:15 | 10:30	Coffee Break		
10:30 | 11:00	MATLAB Workshop *Ms. Misa Taguchi* Application Engineering Group, MathWorks Japan		
11:00 | 12:00	Oral Session - 1 Multimedia Data Processing I (Room: HIMUKA)	Oral Session - 2 Data Governance and Digital Transformation: Technologies and Applications (Room: ONIJI-A)	
12:00 | 13:00	Lunch Buffet Restaurant "ICHIMOKU ISSOU" (2F, West Wing)		
13:00 | 15:00	Oral Session - 3 Multimedia Data Processing II (Room: HIMUKA)	Oral Session - 4 Digital Transformation Technologies and Artificial Computing I (Room: HATSUKARI)	Online Session (Room: ONIJI-A)
15:00 | 15:15	Coffee Break		
15:15 | 17:00	Oral Session - 5 Circuit and Embedded System Design for Computing and Signal Processing Technology (Room: HIMUKA)	Oral Session - 6 Advanced Meta-Heuristic Optimization Algorithms and Applications (Room: HATSUKARI)	Oral Session - 7 Digital Transformation Technologies and Artificial Computing II (Room: ONIJI-A)
17:30 | 19:30	Banquet (Room: HEKIYOU)		

ICGEC2024 International Conference Program – Day 2

Time	August 29, 2024 (Thursday)	
	Miyazaki Kanko Hotel: All Venues, 2F, East Wing	
8:30 | 8:45	Registration	
8:45 | 10:15	**Oral Session - 8** Intersection of Medical Technology, AI, IoT, and Big Data Analysis I (Room: HIMUKA)	**Oral Session - 9** Digital Transformation Technologies and Artificial Computing III (Room: HATSUKARI)
10:15 | 10:30	**Coffee Break**	
10:30 | 12:00	**Oral Session - 10** Intersection of Medical Technology, AI, IoT, and Big Data Analysis II (Room: HIMUKA)	**Oral Session - 11** Digital Transformation Technologies and Artificial Computing IV (Room: HATSUKARI)
12:00 | 13:00	**Lunch** **Buffet Restaurant "ICHIMOKU ISSOU" (2F, West Wing)**	
13:00 | 14:45	**Oral Session - 12** Multimedia Data Processing III (Room: HIMUKA)	**Oral Session - 13** Digital Transformation Technologies and Artificial Computing V (Room: HATSUKARI)
15:00 | 18:30	**Conference Excursion *** (Aoshima and Nichinan)	
18:30 | 20:30	**Farewell Party *** (Aoshima Restaurant @ Aoshima)	

* Free shuttle buses will be provided for the participants of the Conference Excursion and Farewell Party (same participants from the excursion). After the Farewell party, the buses will send to hotels at Aoshima, Miyazaki City-Downtown, and University of Miyazaki.

Conference Timetable (Detail Schedule)

Session 1   Multimedia Data Processing I

Date   August 28, 2024 (Wednesday)

Time   11:00 – 12:00

Room   Miyazaki Kanko Hotel: 2F, East Wing (Room: HIMUKA)

Chair   Prof. Tetsuya Shimamura, Saitama University, Japan

(1)   **Paper ID: ICGEC-2024-6**

Statistical analysis of A-weighted sound pressure level for courtship song of robust cicada in Tokyo 2023

Leo Misono and Kenji Muto (Shibaura Institute of Technology, Japan)

(2)   **Paper ID: ICGEC-2024-8**

Highly accurate image matching using inlier extraction of images via upper confidence bound policy
Mashiro Shimada and Hiroyuki Kamata (Meiji University, Japan)

(3)   **Paper ID: ICGEC-2024-41**

Blind Underwater Image Quality Assessment Using Ensemble of Vision Transformer

Nay Chi Lynn and Tetsuya Shimamura (Saitama University, Japan)

(4)   **Paper ID: ICGEC-2024-49**

Multi-channel Speech Enhancement Network Using Noise-Reference Microphone

Kota Suzuki, Yusuke Sugiura, and Tetsuya Shimamura (Saitama University, Japan)

Session 2	Data Governance and Digital Transformation: Technologies and Applications
Date	August 28, 2024 (Wednesday)
Time	11:00 – 12:00
Room	Miyazaki Kanko Hotel: 2F, East Wing (Room: ONIJI-A)
Chair	Prof. Wan-Jung Chang, National Kaohsiung University of Science and Technology, Taiwan

(1)   Paper ID: ICGEC-2024-19

Toward Implementation of Autonomous Navigation with Accelerated Map Generation for High-Accuracy Landing on Unknown Celestial Bodies

Hiroaki Miura, Haruki Omori and Hiroyuki Kamata (Meiji University, Japan)

(2)   Paper ID: ICGEC-2024-61

Depiction of 3DCG Hula Dancers for Hula Costume Design CAD Development

Leona Kimura, Masatoshi Beppu, Satoshi Ikeda, Kaoru Ohe, and Makoto Sakamoto (University of Miyazaki, Japan)

(3)   Paper ID: ICGEC-2024-44

MCTR--Relevant Citation Identification of Research Articles based on Metadata, Content, Theory Congruence and Mention Rates using Multiple Regression
Kyu Kyu Win (University of Computer Studies, Hinthada, Myanmar) and Yi Yi Hlaing (University of Computer Studies, Mandalay, Myanmar)

(4)   Paper ID: ICGEC-2024-154

Construction and Accuracy Study of Agricultural Machinery Carbon Footprint Verification Model
Huan-Chang Lin (I-Shou University, Taiwan), Yu-Ching Chuang (I-Shou University, Taiwan), Yung-Hsing Peng (Institute for Information Industry, Taiwan), Kuo-Chuan Cheng (I-Shou University, Taiwan), Hung-Chi Wu (Gen Kai Enterprise Co., Ltd, Taiwan), and Szu-Hsuan Wang (Myshine Technology Co., Ltd, Taiwan)

Session 3   **Multimedia Data Processing II**

Date   August 28, 2024 (Wednesday)

Time   13:00 – 15:00

Room   Miyazaki Kanko Hotel: 2F, East Wing (Room: HIMUKA)

Chair   Prof. Mong-Fong Horng, National Kaohsiung University of Science and Technology, Taiwan

(1)   Paper ID: ICGEC-2024-11

Towards Natural Gas Consumption Prediction by Deep Learning: Case Study in Several East-Europe Countries

TuanAnh Nguyen and HongGiang Nguyen (Hue University, Vietnam)

(2)   Paper ID: ICGEC-2024-64

Optimized Block Size Valuation by Blockchain-based Hyperledger Fabric Network

Khin Su Su Wai and Nwe Nwe Myint Thein (University of Information Technology, Myanmar)

(3)   Paper ID: ICGEC-2024-77

Cloud Cost Prediction with LSTM on Parametric Data

Khin Pyae Phyo San and Nwe Nwe Myint Thein (University of Information Technology, Myanmar)

(4)   Paper ID: ICGEC-2024-50

Evaluation of Body Condition Score for walking dairy cows using 3D camera
Masaya Chikunami, Thi Thi Zin, Masaru Aikawa, Ikuo Kobayashi (University of Miyazaki, Japan)

(5)   Paper ID: ICGEC-2024-56

Arrival Time Difference Estimation Based on GCC-PHAT for Multiple Loudspeakers

Riku Kasakura, Yosuke Sugiura, and Tetsuya Shimamura (Saitama University, Japan)

(6)   Paper ID: ICGEC-2024-62

A Study on Improvement of Operation Accuracy by Viewpoint Switching in VR
Masatoshi Beppu, Leona Kimura, Kaoru Ohe, Satoshi Ikeda, and Makoto Sakamoto (University of Miyazaki, Japan)

(7)   Paper ID: ICGEC-2024-68

Utilizing Behavioral Features for Predicting Calving Time

Wai Hnin Eaindrar Mg, Pyke Tin, Masaru Aikawa, Ikuo Kobayashi, Yoichiro Horii, Kazuyuki Honkawa, Thi Thi Zin (University of Miyazaki, Japan)

(8)   Paper ID: ICGEC-2024-169

Auto Labeling for Liver CT Image Based on Edge Detection and Region of Interest Segmentation

Jun-Yan Horng (National Kaohsiung University of Science and Technology, Taiwan), Jiun-Huei Ho (Cheng Shiu University, Taiwan), Chun-Chih Lo, Chin-Shiuh Shieh, and Mong-Fong Horng (National Kaohsiung University of Science and Technology, Taiwan)

Session 4   **Digital Transformation Technologies and Artificial Computing I**

Date   August 28, 2024 (Wednesday)

Time   13:00 – 15:00

Room   Miyazaki Kanko Hotel: 2F, East Wing (Room: HATSUKARI)

Chair   Assoc. Prof. Liang-Bi Chen, National Penghu University of Science and Technology (NPU), Taiwan

(1)   **Paper ID: ICGEC-2024-14**

A Lightweight Approach for Identifying DDoS Attacks Using Boosting Models and Hybrid Feature Selection

Soe Kalayar Naing and Tin Thein Thwel (University of Computer Studies, Yangon, Myanmar)

(2)   **Paper ID: ICGEC-2024-17**

Proposal of a Document Layout Analysis Method Adopting Pre-processing Based on Document Image Classification

Kanta Kakinoki and Tetsuro Katayama (University of Miyazaki, Japan)

(3)   **Paper ID: ICGEC-2024-40**

Context-Aware Personality Recognition from User Generated Text Using Deep Learning

Zan Mo Mo Aung and Myo Khaing (University of Computer Studies Mandalay, Myanmar)

(4)   **Paper ID: ICGEC-2024-45**

Monthly Weather Data Collection and Alert System using Time Series LSTM Model

San Nyein Khine, Zaw Tun and Ye Naing (University of Computer Studies, Sittway, Myanmar)

(5)   **Paper ID: ICGEC-2024-52**

Automated Cattle Identification via Image-Based Ear Tag Recognition

Yuichiro Shimizu, Thi Thi Zin, Masaru Aikawa, and Ikuo Kobayashi (University of Miyazaki, Japan)

(6)   **Paper ID: ICGEC-2024-57**

Performance Evaluation of Edge Detectors for Automated Book Spine Segmentation in Library Bookshelf Images

Myat Min Maung, Zu Zu Aung and Than Than Nwe (University of Information Technology, Myanmar)

(7)   **Paper ID: ICGEC-2024-76**

Cattle Lameness Detection Using Leg Region Keypoints from a Single RGB Camera

Bo Bo Myint, Thi Thi Zin, Masaru Aikawa, Ikuo Kobayashi and Pyke Tin, (University of Miyazaki, Japan)

(8)   **Paper ID: ICGEC-2024-168**

A Smart Sensor for Gait Analysis of Rehabilitation Assessment

Chang-Ang Lee (Hong-Yi industrial Inc., Taiwan), Che-Wi Chou, Chih-Shiuh Shieh, Mong-Fong Horng, Shu-Wei Guo (National Kaohsiung University of Science and Technology, Taiwan)

Session 5   **Circuit and Embedded System Design for Computing and Signal Processing Technology**

Date   August 28, 2024 (Wednesday)

Time   15:15 – 17:00

Room   Miyazaki Kanko Hotel: 2F, East Wing (Room: HIMUKA)

Chair   Prof. Chih-Peng Fan, National Chung Hsing University, Taiwan

(1)   **Paper ID: ICGEC-2024-3**

Handheld Pig-weight Estimation Using an RGB-D Sensor

Khin Dagon Win, Kikuhito Kawasue, Tadaaki Tokunaga, Yusuke Iki (University of Miyazaki, Japan)

(2)   **Paper ID: ICGEC-2024-5**
Recognition of Viewer's Gazing Interest with YOLOv7 and SVM Technologies for Smart Advertising Displays
Chun-Chung Cheng and Chih-Peng Fan (National Chung Hsing University Taichung, Taiwan)

(3)   **Paper ID: ICGEC-2024-43**

Facial Expression Recognition using Convolutional Neural Network with Residual Units and Attention Mechanism
Moe Moe Htay and Zin Mar Win (University of Computer Studies, Mandalay, Myanmar)

(4)   **Paper ID: ICGEC-2024-48**

Mask Segmentation and Evaluation based on Mask Scoring R-CNN

Yu-Cheng Fan, Xiaomin Liu and Shen-Chin Chang (National Taipei University of Technology, Taiwan)

(5)   **Paper ID: ICGEC-2024-67**
A Comparative Analysis of Convolutional Neural Networks (CNN) and Long Short-Term Memory (LSTM) Networks for Forecasting Stock Prices Over a One-Week Horizon at Yangon Stock Exchange
Kyaw Kyaw Khaing, Ah Nge Htwe (University of Computer Studies Yangon, Myanmar) and Andrew Lewis (Griffith University, Australia)

(6)   **Paper ID: ICGEC-2024-70**

From Vision to Vocabulary: A Multimodal Approach to Detect and Track Black Cattle Behaviors

Su Myat Noe, Thi Thi Zin , Pyke Tin and Ikuo Kobayashi (University of Miyazaki, Japan)

(7)   **Paper ID: ICGEC-2024-71**

An Abnormal Behavior Recognition System for Bathrooms with Using Toilet Based on Thermal Image AI Edge Computing Technology

Wan-Jung Chang (National Kaohsiung University of Science and Technology (Taiwan)), Jia-Hong Liu, Yi-Jia Chen (Southern Taiwan University of Science and Technology, Tainan), and Liang-Bi Chen (National Penghu University of Science and Technology, Taiwan)

Session 6   **Advanced Meta-Heuristic Optimization Algorithms and Applications**

Date   August 28, 2024 (Wednesday)

Time   15:15 – 17:00

Room   Miyazaki Kanko Hotel: 2F, East Wing (Room: HATSUKARI)

Chair   Assoc. Prof. Mohanapriya Arumugam, Vellore Institute of Technology, India

(1)   **Paper ID: ICGEC-2024-54**

Comprehensive Analysis to understand the potential of Embelin in Ulcerative Colitis: An Integrated approach of Weighted Gene Expression Analysis and Random Forest algorithm

Prashanth S Javali and Kavitha Thirumurugan (Vellore Institute of Technology, India)

(2)   **Paper ID: ICGEC-2024-55**

Computational Insights into WSSV Virulent Protein Interactions with Perfluorotributylamine from Halmonas salifodinae

Vernita Priya and Sudhakaran Raja (Vellore Institute of Technology, India)

(3)   **Paper ID: ICGEC-2024-80**

Emerging Horizons in Renal Cell Carcinoma Therapy: Impact of Cuproptosis-related miRNAs on RCC

Subeka Abraham Gnanadass and Pragasam Viswanathan (Vellore Institute of Technology, India)

(4)   **Paper ID: ICGEC-2024-81**

Transcriptome Analysis reveals key genes and Regulatory Networks in Early-onset Pre-eclampsia via integrated Bioinformatics Approach

Tamil Barathi Palanisamy and Mohanapriya Arumugam (Vellore Institute of Technology, India)

(5)   **Paper ID: ICGEC-2024-141**

A Graph Clustering Algorithm Based on Gravitational Vector

Jitao Li, Yao Yao, Chugui Xu and Xue Tian (Taishan University, China)

(6)   **Paper ID: ICGEC-2024-152**

Application of Willow Catkin Optimization Algorithm for Wireless Sensor Network
Shu-Chuan Chu, Buyue Guo, Bing Sun, Hong-Mei Yang (Shandong University of Science and Technology, China) and Jeng-Shyang Pan (Nanjing University of Information Science and Technology, China), (Chaoyang University of Technology, Taiwan)

(7)   **Paper ID: ICGEC-2024-153**

A dimensional difference-based population size adjustment framework for Gannet optimization algorithm

Jeng-Shyang Pan (Nanjing University of Information Science and Technology, China), (Chaoyang University of Technology, Taiwan), Kunpeng Han, Shu-Chuan Chu, Zhi Li (Shandong University of Science and Technology, China) and Li Zhang (Qingdao University of Technology, China)

Session 7   **Digital Transformation Technologies and Artificial Computing II**

Date   August 28, 2024 (Wednesday)

Time   15:15 – 17:00

Room   Miyazaki Kanko Hotel: 2F, East Wing (Room: ONIJI-A)

Chair   Dr. Chutima Tantiktti, Prince of Songkla University (PSU), Thailand

(1)   **Paper ID: ICGEC-2024-2**

Molecular Phylogeny of Rhodotorula Yeasts Based on the Sequencing of 18S Ribosomal RNA Gene
Tungse W, Nuntapong N, Tantikitti C and Suanyuk N (Prince of Songkla University, Thailand)

(2)   **Paper ID: ICGEC-2024-7**

Low-Cost Indoor Smart-Aquaculture System for Endangered Species and Some Common Thai Freshwater Fish
Nopparat Tanmark, Nutt Nuntapong, Naraid Suanyuk, Akkarawit Issaro and Chutima Tantikitti (Prince of Songkla University, Thailand)

(3)   **Paper ID: ICGEC-2024-51**

Identification of Rumination Patterns in Cattle Through Optical Flow Analysis and Machine Learning Techniques
Taichi Ishikawa, Thi Thi Zin, Masaru Aikawa, Ikuo Kobayashi (University of Miyazaki, Japan)

(4)   **Paper ID: ICGEC-2024-10**

Molecular identification of Cordyceps javanica PSUC001 and its potential control strategy of the brown plant hopper Nilaparvata lugens (Stål) (Hemiptera: Delphacidae)
Peerasak Bunsap, Sinlapachai Senarat, Seree Niyomdecha, Chaninun Pornsuriya and Narit Thaochan (Prince of Songkla University, Thailand)

(5)   **Paper ID: ICGEC-2024-159**

In Silico Assessment of 16S rRNA Primer Specificity for Targeted Bacterial Amplification: A Case Study with Vibrio parahaemolyticus

Kittichon U-taynapun, Nutsara Intharasuwan and Nion Chirapongsatonku (Rajamangala University of Technology Srivijaya, Thailand)

(6)   **Paper ID: ICGEC-2024-84**

Automatic Body Temperature Detection in Calves and Alarm System Using Thermographic Camera
Aung Si Thu Moe, Thi Thi Zin, Masaru Aikawa and Ikuo Kobayashi *(University of Miyazaki, Japan)*

(7)   **Paper ID: ICGEC-2024-160**

A Phylogenetic Update of Azospirillum Using Recent 16S rRNA Data

Nion Chirapongsatonkul, Wiriyaporn Srisuksai, Butsarakorn Ratchapol, Agnesia Frisca Damayanti, and Kittichon U-taynapun (Rajamangala University of Technology Srivijaya, Thailand)

Session	Online Session
Date	August 28, 2024 (Wednesday)
Time	13:00 – 15:00
Room	Miyazaki Kanko Hotel: 2F, East Wing (Room: ONIJI-A)
Chair	Prof. Pyke Tin, University of Miyazaki, Japan
	Dr. Cho Nilar Phyo, University of Miyazaki, Japan

(1)   Paper ID: ICGEC-2024-88

Empowering Information Retrieval and Prediction of Socioeconomic Indicators through Knowledge-Driven Data Models

Trinh-Dong Nguyen, Trong-The Nguyen, Thi-Kien Dao, Thanh-Trong Le, Quang-Ky Le (University of Information Technology, VNU-HCM, Vietnam) (Vietnam National University, Vietnam)

(2)   Paper ID: ICGEC-2024-142

Dual-Population-Iterating and Preys-Gathering MPA for XGBoost optimization
Jiacheng Li, Li Lv, Ping Kang, Xiumei Tian (Nanchang Institute of Technology, China)

(3)   Paper ID: ICGEC-2024-155

Detection of Unknown Darknet Traffic with Random Forest
Dong-Yu Lee, Thanh-Lam Nguyen, Chin-Shiuh Shieh, Mong-Fong Horng (National Kaohsiung University of Science and Technology, Taiwan), Casper Tsai (Auray Technology Corp., Taiwan) and Denis Miu (Genie Networks Ltd., Taiwan)

(4)   Paper ID: ICGEC-2024-156

Multi-Class Attack Detection in IoT Using Dimensionality Reduction with Stacked Autoencoders and Classification with Long Short-Term Memory Networks

Yu-Xian Lee, Chin-Shiuh Shieh, Mong-Fong Horng (National Kaohsiung University of Science and Technology, Kaohsiung, Taiwan), Ying-Chieh Chao (ICP DAS CO., Ltd., Taipei, Taiwan), Prasun Chakrabarti (Sir Padampat Singhania University, India)

(5)   Paper ID: ICGEC-2024-157

UAV image matching based on graph neural network

Li Qiqi (Jiamusi University, China), Liu Zhuo (Heilongjiang Bayi Agricultural University, China), Meng Lingyue, Liu Xiaomin, Zhao Huaqi (Jiamusi University, China)

(6)   Paper ID: ICGEC-2024-161

General capability evaluation of autonomous navigation based on similarity calculation

Hongtao Yin, Hao Zhang, Lixin Zhang (Harbin Institute of Technology, China)

(7)   Paper ID: ICGEC-2024-164

Analysis of Schema Formation in Genetic Algorithms: A Review

Tiancong Zhang (Fujian University of Technology, China), Shu-Chuan Chu (Shandong University of Science and Technology, China), Shaowei Weng (Fujian University of Technology, China), Thi-Kien Dao, Trong-The Nguyen (University of Information Technology, Vietnam)

(8) **Paper ID: ICGEC-2024-165**

Evolving Effective Drug Therapies with Multi-Objective Genetic Algorithm

Tiancong Zhang, Shaowei Weng (Fujian University of Technology, China), Shu-Chuan Chu (Shandong University of Science and Technology, China), Trong-The Nguyen, Thi-Kien Dao (University of Information Technology, Vietnam)

(9) **Paper ID: ICGEC-2024-143**

Feature Intracorrelation and Weighted Mahalanobis Distance for Fuzzy Support Vector Machine

Lan Jiang, Li Lv, Siwei Peng, Haihua Xie (Nanchang Institute of Technology, China)

(10) **Paper ID: ICGEC-2024-151**

Lightweight Remote Sensing Target Detection Algorithm based on Improved YOLOv5

Chaomin Wang, Fang Dong, Sheng Liang, Wanxin Yu, Kaixian Wu (Nanchang Institute of Technology, China), Long Yu (Jiangxi University of Finance and Economics, China), Wang Wenfeng (Nanchang Institute of Technology, China)

Session 8   **Intersection of Medical Technology, AI, IOT, and Big Data Analysis I**

Date   August 29, 2024 (Thursday)

Time   08:45– 10:15

Room   Miyazaki Kanko Hotel: 2F, East Wing (Room: HIMUKA)

Chair   Prof. Yu-Cheng Fan, National Taipei University of Technology (NTUT), Taiwan

(1)   Paper ID: ICGEC-2024-1

Biomechanical Analysis of the Effect of Tibial Slope and Tibial Tunnel Angle on the Tibial Tunnel During Posterior Cruciate Ligament Reconstruction
Fan Yang, Takuji Yokoe, Koki Ouchi, Takuya Tajima, Etsuo Chosa (University of Miyazaki, Japan)

(2)   Paper ID: ICGEC-2024-36

GIS-based Optimal Evacuation Path and Water Resources Finding for Fire Emergency Using Modified A* Algorithm

Lei Lei Win and Nilar Thein (University of Computer Studies (Thaton), Myanmar)

(3)   Paper ID: ICGEC-2024-63

Evaluating Pipeline Architecture with Apache Kafka and Apache Flink: Data-Driven Architecture

Chan Min Kyaw and Nwe Nwe Myint Thein (University of Information Technology, Myanmar)

(4)   Paper ID: ICGEC-2024-78

An Attempt to Solve Fill in the Missing Letters CAPTCHA Using Generative AI

Hisaaki Yamaba, Shotaro Usuzaki, Kentaro Aburada, Masayuki Mukunoki (University of Miyazaki, Japan), Mirang Park (Kanagawa Institute of Technology, Japan) and Naonobu Okazaki (University of Miyazaki, Japan)

(5)   Paper ID: ICGEC-2024-79

Effective Task Scheduling using Particle Swarm Optimization (PSO) with Various Offloading Strategies in Fog-Cloud Computing Environment
Zun Myat Myat Soe, Tin Zar Thaw and Yu Mon Zaw (University of Computer Studies Yangon, Myanmar)

(6)   Paper ID: ICGEC-2024-82

Risk Management Model for Cloud-based Learning Platform in Academic Institution

Moe Moe San and Khin May Win (University of Computer Studies Yangon, Myanmar)

Session 9 **Digital Transformation Technologies and Artificial Computing III**

Date   August 29, 2024 (Thursday)

Time   08:45– 10:15

Room   Miyazaki Kanko Hotel: 2F, East Wing (Room: HATSUKARI)

Chair   Prof. Moriyama Tsuyoshi, Tokyo Polytechnic University

(1)   **Paper ID: ICGEC-2024-20**

    A Technique based on Deep Learning for Classifying Rice Leaf Disease Using Pre-Trained Models

    Lai Yee Win Lwin (University of Computer Studies, Hinthada, Myanmar) and Ah Nge Htwe (University of Computer Studies, Yangon, Myanmar)

(2)   **Paper ID: ICGEC-2024-29**

    Dependency Parsing Using Recurrent Neural Network on Myanmar Language

    *Nwe Nwe Win (Ministry of Education, Myanmar) and
    Win Pa Pa (University of Computer Studied, Yangon, Myanmar)*

(3)   **Paper ID: ICGEC-2024-31**

    Towards Infrastructure Automation using IaC in the era of GenAI

    Han Min Myat, Myat Pwint Phyu and Aye Myat Myat Paing (University of Information Technology, Myanmar)

(4)   **Paper ID: ICGEC-2024-34**

    Evacuation support system for tsunami disasters that considers shelter congestion
    Hidetaka Nishi, Keita Nabeyama, Shotaro, Kentaro Aburada, Hisaaki Yamaba, Tetsuro Katayama, (University of Miyazaki, Japan), Mirang Park (Kanagawa Institute of Technology, Japan) and Naonobu Okazaki (University of Miyazaki, Japan)

(5)   **Paper ID: ICGEC-2024-37**

    A Scalable Architecture for Improving Adaptive Bitrate Streaming Services

    Taofik Lamsub and Pichaya Tandayya (Prince of Songkla University, Thailand)

(6)   **Paper ID: ICGEC-2024-69**

    Cattle Lameness Classification Using Cattle Back Depth Information

    San Chain Tun, Pyke Tin, Masaru Aikawa, Ikuo Kobayashi, and Thi Thi Zin (University of Miyazaki, Japan)

Session 10   **Intersection of Medical Technology, AI, IOT, and Big Data Analysis II**

Date   August 29, 2024 (Thursday)

Time   10:30 – 12:00

Room   Miyazaki Kanko Hotel: 2F, East Wing (Room: HIMUKA)

Chair   Prof. Kimura Takayuki, Nippon Institute of Technology, Japan

(1)   Paper ID: ICGEC-2024-83

Individuality Prediction of Pain Facial Expressions Based on Permanent Wrinkles

Tsuyoshi Moriyama and Wang Xubo (Tokyo Polytechnic University, Kanagawa, Japan)

(2)   Paper ID: ICGEC-2024-13

A Secure IoT Network for Healthcare Systems Based on Quantum Key Distribution Protocol and AES Encryption

Myat Su Win (University of Computer Studies, Mandalay, Myanmar) and Khaing Khaing Wai (University of Computer Studies, Yangon, Myanmar)

(3)   Paper ID: ICGEC-2024-15

Detection of Malicious Activities in IoT Network based on Enhanced Dimensional Feature Reduction and BLSTM

Yee Mon Thant, Zin Thu Thu Myint, Chaw Su Htwe (University of Computer Studies, Yangon, Myanmar)

(4)   Paper ID: ICGEC-2024-24

Impact of Imbalanced Data on Apache Spark

Thet Hsu Aung and Aye Myat Myat Paing (University of Information Technology, Myanmar)

(5)   Paper ID: ICGEC-2024-72

Detection of Script Reading Face in Diet Deliberation Video

Tsuyoshi Yamaguchi, Takeshi Saitoh and Haibo Zhang (Kyushu Institute of Technology, Japan)

(6)   Paper ID: ICGEC-2024-73

Adsorption Model Analysis on Semimetal Anions Using Cross-linking Chitosan Nanofiber Introduced Xylose

Kaoru Ohe, Miku Furukawa and Tatsuya Oshima (University of Miyazaki, Japan)

Session 11   Digital Transformation Technologies and Artificial Computing IV

Date   August 29, 2024 (Thursday)

Time   10:30 – 12:00

Room   Miyazaki Kanko Hotel: 2F, East Wing (Room: HATSUKARI)

Chair   Prof. Mitsuhiro Yokota, University of Miyazaki, Japan

(1)   Paper ID: ICGEC-2024-167

Vision Enhancement System with AR Wearable Aid for Low-Vision People

Jing-Hong Chen and Chien-Chou Lin (National Yunlin University of Science and Technology, Taiwan)

(2)   Paper ID: ICGEC-2024-23

Land use land cover change analysis based on Deep Learning and SVM Classifier using Geospatial data (Case study Mandalay Township)

Aye Mya Thein (Technological University, Mandalay, Myanmar) and Ah Nge Htwe (University of Computer Studies, Yangon, Myanmar)

(3)   Paper ID: ICGEC-2024-42

Comparative Performance Analysis of Classification Methods for Educational Data, Rakhine State
Thaung Myint Tun and Zaw Tun (University of Computer Studies (Sittway), Myanmar)

(4)   Paper ID: ICGEC-2024-85

Cow's Back Surface Segmentation of Point-cloud Image using PointNet++ for Individual Identification

Pyae Phyo Kyaw, Pyke Tin, Masaru Aikawa, Ikuo Kobayashi, Thi Thi Zin (University of Miyazaki, Japan)

(5)   Paper ID: ICGEC-2024-139

Applying Digital Restoration Techniques in Preservation of Ancient Murals using Diffusion-Based Inpainting

Khant Khant Win Tint, Mie Mie Tin (University of Technology (Yatanarpon Cyber City, Myanmar), Thi Thi Zin and Pyke Tin (University of Miyazaki, Japan)

(6)   Paper ID: ICGEC-2024-140

Next generation sequencing exome data analysis aids in the discovery of SNP and INDEL patterns in Parkinson's disease
Rajasree Odumpattaa and Mohanapriya Arumugama (Vellore Institute of Technology, India)

Session 12   Multimedia Data Processing III

Date   August 29, 2024 (Thursday)

Time   13:00 – 14:45

Room   Miyazaki Kanko Hotel: 2F, East Wing (Room: HIMUKA)

Chair   Prof. Hiroki Tamura, University of Miyazaki, Japan

(1)   Paper ID: ICGEC-2024-12

Numerical Examination on Resonance Properties of Slot Ring Resonator with Throughput and Drop Ports for Biosensing
Mitsuhiro Yokota and Yoshihiro Naka (University of Miyazaki, Japan)

(2)   Paper ID: ICGEC-2024-33

Performance Investigation of a New Chaotic Search Method for Vehicle Routing Problem with Drones
Kazuma Nakajima, Takafumi Matsuura, and Takayuki Kimura (Nippon Institute of Technology, Japan)

(3)   Paper ID: ICGEC-2024-59

Real-Time Video Denoising Acceleration Using Pixel Shuffle and FP16
Riku Masuko, Yosuke Sugiura, and Tetsuya Shimamura (Saitama University, Japan)

(4)   Paper ID: ICGEC-2024-65

Investigating Visual Illusions in Convolutional Neural Networks Using Spiral Illusion Images
Kenji Aoki, Takuya Togo and Makoto Sakamoto (University of Miyazaki, Japan)

(5)   Paper ID: ICGEC-2024-66

Acoustic Feature Extraction Method for Piglet Call Detection

Tenma Nakano, Yosuke Sugiura, Tetsuya Shimamura (Saitama University, Japan), Yoshiyuki Nakamura and Ayaka Miyazaki (Saitama Agricultural Technology Research Center, Japan)

(6)   Paper ID: ICGEC-2024-75

FxlogLMS+ : Modified FxlogLMS Algorithm for Active Impulsive Noise Control

Aoi Haneda, Yosuke Sugiura and Tetsuya Shimamura (Saitama University, Japan)

(7)   Paper ID: ICGEC-2024-137

Enhancing Wind Instrumentalists' Performance: Evaluating the MVP Support System with OpenPose Motion Capture
Yasumasa Yamaguchi (Sendai University, Japan) and Taku Kawada (Sendai Shirayuri Gakuen Elementary School, Japan)

Session 13   **Digital Transformation Technologies and Artificial Computing V**

Date   August 29, 2024 (Thursday)

Time   13:00 – 14:45

Room   Miyazaki Kanko Hotel: 2F, East Wing (Room: HATSUKARI)

Chair   Assoc. Prof. Hisaaki Yamaba, University of Miyazaki, Japan

(1)   **Paper ID: ICGEC-2024-35**

    Time-Driven Cost Estimation Learning Model

    Theethawat Savastham and Nikom Suvonvorn (Prince of Songkla University, Thailand)

(2)   **Paper ID: ICGEC-2024-53**

    A Study on Health Management by Behavior Analysis of Calve

    Taketo Nishiyama, Shiiya Kazuhisa, Masaru Aikawa, Ikuo Kobayashi, Thi Thi Zin (University of Miyazaki, Japan)

(3)   **Paper ID: ICGEC-2024-60**

    Research on Individual Identification of Walking Cows using a 3D Camera

    Yo Shiihara, Thi Thi Zin, Masaru Aikawa and Ikuo Kobayashi (University of Miyazaki, Japan)

(4)   **Paper ID: ICGEC-2024-74**

    A Study on the Comparison of various Preprocessing Methods for Bengali Character Recognition using Convolutional Neural Network

    Md Shafayet Jamil and Hiroki Tamura (University of Miyazaki, Japan)

(5)   **Paper ID: ICGEC-2024-170**

    A Mathematical Framework for Reinforcement Learning in Healthcare: Modeling and Analysis in Artificial Intelligence

    Cho Nilar Phyo, Thi Thi Zin (University of Miyazaki, Japan), Hiromitsu Hama (Osaka Metropolitan University, Japan) and Pyke Tin (University of Miyazaki, Japan)

(6)   **Paper ID: ICGEC-2024-158**

    The correlation between fractal dimension and subjective assessment of scene landscape in game Ghost of Tsushima – from multi-ethnic analysis to single-ethnic analysis

    Xiaohan Mei and Yoichi Kunii (Tokyo University of Agriculture, Japan)