

DAY 1 – 19th December 2022

Monday – 08.00 AM – 05.00 PM

Conference Registration

Room: Grand Ballroom 4

Monday – 08.30 AM – 08.45 AM

Opening Ceremony – By: Prof. Richard Sinnott

Room: Grand Ballroom 4

Zoom Link:

Zoom ID:

Password:

Monday – 08.45 AM – 10.45 AM

Keynote Speech 1 – Personalization in the Age of Big Data and Artificial Intelligence – By: Prof. Amin Behesti
Chair: TBA

Keynote Speech 2 – Large Language Models, do they really understand language? – By: Prof. Siegfried Handschuh
Chair: TBA

Room: Grand Ballroom 4

Zoom Link:

Zoom ID:

Password:

Monday – 10.45 AM – 11.00 AM

Tea Break

Room: TBA

Monday – 11.00 AM – 12.30 PM

Session 1 [Physical]

Chair: TBA

Room: Grand Ballroom 4

Performance Improvement of a Method Using Entropy of LOO Predictable Horizons to Select a Representative Prediction of Chaotic Time Series
Kiyohiko Taniguchi

Performance Improvement and Analysis of a Method for Piano Authentication from Audio Signal by Combining Feature Vectors of LPC Spectral Envelope, MFCC, and pLPC Pole Distribution
Shuichi Kurogi

Detecting Data Exfiltration using Seeds based Graph Clustering
Adriel Cheng

Evaluating the Usability of Web Interfaces in Fiji
Munil Shiva Goundar

<i>Thermophysical properties of a promising material for thermal energy storage synthesized by tetrabutylphosphonium malonate and water</i> Taro Iwai		
Zoom Link:	Zoom ID:	Password:
Session 2 [Virtual]		Room: Grand Ballroom 5
Chair: TBA		
<i>AST-Based Source Code Migration Through Symbols Replacement</i> Dawei Chen		
<i>Evaluation of Blood Cell Segmentation Using Level Set-Based Force in Normal Direction via Edge Detection of Cell Shape</i> Teba Makki		
<i>A model for the use of machine learning in the detection of cancer by means of thermographic images in a mobile environment</i> Nicholas Lennox		
<i>Investigating Fake News Detection by Means of Deep Learning on a Limited Data Set</i> Okuhle Ngada		
<i>A Novel Approach to Detect Privacy Policies Violations Using Natural Language Inference (NLI)</i> Abdullah Alshamsan		
Zoom Link:	Zoom ID:	Password:
Session 3 [Virtual]		Room: Grand Ballroom 5
Chair: TBA		
<i>Novel Metrics for Evaluation and Validation of Regression-based Supervised Learning</i> Md Mostafizur Rahman		
<i>Micro Mobile Robot Localization and Collision Detection Based on Image Processing Technology</i> Walid Obaid		
<i>Tools for Animation and Shape Manipulation: A Scoping Review</i> Forouzan Farzinnejad		
<i>Enhancing Customer Experience, and Brand Awareness through Familiar Gameplay in Advergames</i> Forouzan Farzinnejad		
<i>Exploring Deep Time-Series Imaging for Anomaly Detection of Building Energy Consumption</i> Abigail Copiaco		
Zoom Link:	Zoom ID:	Password:

Monday – 12.30 PM – 01.30 PM	
Lunch Break	Room: TBA

Monday – 03.30 PM – 0.30 PM		
Session 4 [Physical]		Room: Grand Ballroom 4
Chair: TBA		
Analysis Support by Estimating Speaker’s State in Sensor-Based Active Listening Shinjiro Yoshida		
Detecting Fire and Smoke using Faster RCNN Vishnu Peesapati		
Proposal to improve exercise using the Fogg Behavior Model Tomoya Yuasa		
An Evaluation of the Generalization Capabilities of Machine Learning Models for Vine Line Detection Jerome Treboux		
Predicting habitual activities for reducing perceived latency YuFeng Deng		
Comparison of Classification Models of Novel Quantum Machine Learning on QisKit Dataset Dr. Ahmad Almadhor		
Zoom Link:	Zoom ID:	Password:
Session 5 [Virtual]		Room: Grand Ballroom 5
Chair: TBA		
Impact of a Batter in ODI Cricket Implementing Regression Models from Match Commentary Kazi Nishat Anwar		
Understanding the learning of disabled students: An exploration of machine learning approaches Maliha Homaira		
Memory Access Characteristics of Neural Network Workloads and Their Implications Soyeon Park		
Providing Automated Feedback on the Gestalt Principle of Symmetry by Means of Machine Learning Soyeon Park		
Comparative Analysis of Classification Techniques on Olympic Games Datasets Ravneil Nand		
A combination of technical indicators and deep learning to predict price trends for short-term cryptocurrency investment Quoc Dai Nguyen		
Zoom Link:	Zoom ID:	Password:
Session 6 [Virtual]		Room: Grand Ballroom 5
Chair: TBA		
Orchestrating the Resilience of Cloud Microservices Using Task-Based Reliability and Dynamic Costing Vyas O’Neill		
Virtual Reality Stores: Studies on Shopper Perceptions and Behaviors Yinshu Zhao		
Responsible Artificial Intelligence for Preterm Birth Prediction in Vulnerable Populations Ggaliwango Marvin		
A Neural Network Model for Matrix Factorization: Dimensionality Reduction		

Prasun Dutta		
<i>An Noval Knowledge Distillation Framework with Intermediate Loss for Android Malware Detection</i>		
Mengzhen Xia		
<i>Performance Analysis of Verifiable Data Registry Solutions for Decentralized Identifiers</i>		
Morteza Alizadeh		
Zoom Link:	Zoom ID:	Password:

Monday – 03.30 PM – 03.45 PM	
Tea Break	Room: TBA

Monday – 03.45 PM – 05.45 PM		
Session 7 [Physical]		Room: Grand Ballroom 4
Chair: TBA		
Experimental energy consumption analysis of neural network model compression methods on microcontrollers with applications in bird call classification Yonghui Tao		
Automated Diagnosis Code Assignment of Thai Free-text Clinical Notes Sitthichok Chaichulee		
Phase Equilibrium for Clathrate Hydrate Formed in Deuterium Oxide + CO2 + Cyclopentane System: Application to Low-Concentration Tritium Separation Meku Maruyama		
A Secure Authentication and Key Establishment Scheme using PUF in Vehicular Ad-Hoc Network Myeonghyun Kim		
A Secure Data Processing System in Edge Computing-Powered AIoT Jihyeon Oh		
Performance Improvement for Speaker Detection from Mixed Speech of Multiple Speakers Using Probabilistic Prediction and Combining LPCSE, MFCC and pLPCPD Kodai Komatsu		
Zoom Link:	Zoom ID:	Password:
Session 8 [Virtual]		Room: Grand Ballroom 5
Chair: TBA		
Improving Quicksort Performance by Optimizing Branch Prediction Jonas Peeters		
Improving Mergesort Performance by Optimizing Branch Prediction Jonas Peeters		
Data vault modelling as alternative to dimensional modelling to embrace complexity in data driven decision systems: a critical systems perspective Roelien Goede		
Application of Artificial intelligence in secure decentralised computation enabled by TOTEM		

Dhanya Therese Jose		
<i>Lantana Camara Flower Detection Using an Improved Lightweight Convolutional Neural Networks in YOLOv5</i> Wie Kiang Hi		
<i>A Cybersecurity Evaluation Model (CSEM) for Indian SMEs Working in a Virtual Team Environment</i> Maliha Khan		
Zoom Link:	Zoom ID:	Password:
Session 9 [Virtual]		Room: Grand Ballroom 5
Chair: TBA		
<i>Autonomous Linear Slider with Extendable Robotic Arm for Increased Reachability</i> Ravinesh Chand		
<i>Tomorrow's Smart City Personal Transporter: An autonomous Hoverboard Robot</i> Ronal Chand		
<i>Noise Identification with Clustering Algorithms in Air Pollution Monitoring with Portable Sensors</i> Xinyi Fang		
<i>Solar Irradiance prediction using deep learning-based approaches</i> Ninu G Hari		
<i>Student Engagement and Learning through Digital Educational Technology</i> Meena Jha		
<i>SITB-OSED: An Odia Speech Emotion Dataset</i> Monorama Swain		
Zoom Link:	Zoom ID:	Password:

DAY 2 – 20th December 2022

Tuesday – 08.30 AM – 10.30 AM		
Keynote Speech 3 – Data Privacy: Is it an Obstacle or Opportunity for Data Scientists – <i>By: Dr. Faisal Zaman</i> Chair: TBA		Room: Grand Ballroom 4
Keynote Speech 4 – Ensure Sustainability using Responsible Computing at a Large Scale in the IT Industry – <i>By: Dr. Mansura Habiba</i> Chair: TBA		
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Tuesday – 10.30 AM – 10.45 AM	
Tea Break	Room: TBA

Tuesday – 10.45 AM – 12.30 PM		
Session 10 [Physical]		Room: Grand Ballroom 4
Chair: TBA		
Neural Symbolic AI For POMDP Games James Chao		
IoT Methods for Determining PPE Mask Fitness Ashish Manchanda		
A Deep-learning-based Approach to Automatically Measuring Foots from a 3D scan Nastaran Nourbakhsh Kaashki		
Messages for Improvement of walking amount based on a stage of change Rintaro Kataoka		
Deniable Authentication Protocol Based on Factoring and Discrete Logarithm Problems Normahirah Nek Abd Rahman		
Zoom Link:	Zoom ID:	Password:
Session 11 [Virtual]		Room: Grand Ballroom 5
Chair: TBA		
Web-based Signing of English Text Zexi Dai		
Cloud ERP adoption in SMEs of New Zealand Retail Industry: exploring CSFs and risks Sunchai Tongsuksai		
A Comparative Analysis of Swarm Intelligent Algorithms Emmenual Reddy		
Myers-Briggs Type Indicator and the Big Five Model – How Our Personality Affects Language Use Dusan Radisavljevic		
A novel security vulnerability detection mechanism using Information Flow tracking on a complex SOC Manoj Kumar Munigala		
Zoom Link:	Zoom ID:	Password:
Session 12 [Virtual]		Room: Grand Ballroom 5
Chair: TBA		
An efficient use of Toffoli quantum gate for boosting the embedding capacity in DNA sequence Mahbubun Nahar		
A New Resource Configuring Scheme for Variable Workload in IoT Systems Sunhwa Nam		
Framework for Pre-processing, Feature-extraction, and Specialisation of Nominal Data Krishna Aryal		
Vertically Sliding Revolute Robotic Arm intended for automated Pick-and-Place Industrial applications Parmesh Naicker		
Weight Design for Small Data Sample Decision under Attribute Association Aman Dadheech		
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Session 13 [Virtual]		Room: TBA
Chair: TBA		
A Decentralized Employee Performance Appraisal Framework for Recruitment, Performance Prediction and Ranking using Permissioned Blockchain and Machine Learning Afra Antara Anjum		
Decentralized Federated Learning and Deep Learning Leveraging XAI-Based Approach to Classify Colorectal Cancer Noshin Tabassum Arthi		
OkkhorNet: A Deep Convolutional Neural Network to Classify Bengali Handwritten Characters Shihab Uddin Sikder		
SZR5: A Modern Technique to Detect Potholes using Convolution Neural Network Muntasir Mahmud Saif		
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Tuesday – 12.30 PM – 01.30 PM	
Lunch Break	Room: TBA

Tuesday – 01.30 PM – 03.30 PM		
Session 14 [Physical]		Room: Grand Ballroom 4
Chair: TBA		
A Secure User Authentication Protocol in Smart Living Environment DeokKyu Kwon		
A machine learning-based depression detection on social media platforms for adolescents: A work in progress narrative review Farahnaz Vahdati		
Assessing the Suitability of Three-Point and Four-Point Bending Simulation Raviduth Ramful		
Estimating creativity drawing features from hand drawing logs Kohei Urayama		
Choosing Suitable Object Detection Method to Examine Pigment Powders of Similar Shape Naoya Wakabayashi		
Visualizing Cumulative Risk Across Work Contexts Beth Cardier		
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Session 15 [Virtual]		Room: Grand Ballroom 5
Chair: TBA		

Enhancing Cluster Quality of Numerical Datasets with Domain Ontology Sudath Heiyanthuduwage		
Data Poisoning Attack Using Hybrid Particle Swarm Optimization in Connected and Autonomous Vehicles Chi Cui		
Non-uniform distributed energy storage systems allocation in unbalanced distribution networks Dong Zhang		
Digital Image Processing Using Noise Removal Technique: A Non-Linear Approach Rishal Chand		
IoT and its Significance on Smart Technologies in the Health Sector – An Extensive Review Deepika Bandhana		
Applicable Cyber Security Recommendations to Prevent Cyber Attacks in Universities Arjun Pillay		
Implementation of Automated Result Management System in a Developing Country Sonam Nair		
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Session 16 [Virtual]		Room: Grand Ballroom 5
Chair: TBA		
IoT-Powered Hydroponics System for Stem-cutting Propagation Techniques Muhammad Zakwan Hj Zakaria		
Smart Cloud Powered Energy Evaluation Platform for Hydroponic Farming: An Experimental Research Muhammad Zakwan Hj Zakaria		
Comparing Customer Behaviours: Immersive Virtual Reality Store Experiences versus Web and Physical Store Experiences Aysu Erensoy		
Interpretable machine learning-based terrorist attack success rate prediction Lanjuan lu		
Applicability Analysis of Blockchain Technology Ahmed Afif Monrat		
PoIND: Policy-oriented analysis of Internet inclusivity for National Development Krithika Ragothaman		
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Session 17 [Virtual]		Room: TBA
Chair: TBA		
Explainable AI based Glaucoma Detection using Transfer Learning and LIME Touhidul Islam Chayan		
BanglaSarc: A Dataset for Sarcasm Detection Tasnim Sakib Apon		
Lossless Segmentation of Brain Tumors from MRI Images using 3D U-Net Md. Muntaha Islam		
Interpretable Movie Review Analysis Using Machine Learning and Transformer Models Leveraging XAI Farzad Ahmed		
Zoom Link:	Zoom ID:	Password:

Tuesday – 03.30 PM – 03.45 PM	
Tea Break	Room: TBA

Tuesday – 03.45 PM – 05.45 PM		
Session 18 [Physical]		Room: Grand Ballroom 4
Chair: TBA		
<i>Governance token distributions of Layer-One.X</i> Ponnie Clark		
<i>Generating Robust Convolutional Networks by Injecting Partial Noise in the Training Data</i> Artem Pilzak		
<i>A Retrieval Method of Software Requirements from Japanese Requirements Document with Dependency Analysis and Keywords</i> Takafumi OGAWA		
<i>Security of Internet of Things Devices: Ethical Hacking a Drone and its Mitigation Strategies</i> Rajkumar Das		
<i>Integrated Big Data Analytics Conceptual Framework for Information Sharing across the fast-moving consumer goods industry</i> Michael Ayomoh		
<i>A Deep Learning Model of Estimating User’s Place of Residence Using Tweets and Weather Information</i> Masahiro Matsumoto		
Zoom Link:	Zoom ID:	Password:

Tuesday – 03.45 PM – 05.00 PM		
Session 19 [Virtual]		Room: Grand Ballroom 5
Chair: TBA		
Deep Learning for Real Estate Trading Girija Chetty		
Cardiovascular Disease Detection Based on Interpretable and Explainable AI Girija Chetty		
On the use of XAI for CNN Model Interpretation: A Remote Sensing Case Study Bahareh Kalantar		
MSBDA-Net: Multi-scale Siamese Building Damage Assessment Network Bahareh Kalantar		
Anomaly Detection in IoT Applications using Deep Learning with Class Balancing Md Mamunur Rashid		
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Tuesday – 03.45 PM – 05.00 PM		
Session 20 [Virtual]		Room: Grand Ballroom 5
Chair: TBA		
Automated Assessment of Excessive Inbreeding of Dogs based on Deep Learning Yanmin Liu		
βLink: A Pattern Recognition Approach for Identifying Superior Event-to-Sink Links in a Spatiotemporal Correlated Sensor Network Lawrence Mwenda Muriira		
Virtual Reality Stores: Studies on Shopper Perceptions and Behaviors Yinshu Zhao		
Analysis of differences in motivation focusing on differences in national character Koki Matsuno		
Weight Design for Small Data Sample Decision under Attribute Association Shixuan Zhang		
Zoom Link:	Zoom ID:	Password:
Session 21 [Virtual]		Room: TBA
Chair: TBA		
Responsible Artificial Intelligence for Preterm Birth Prediction in Vulnerable Populations Ggaliwango Marvin		
Explainable Computational Pathology for Survival Prediction in Hematologic Pediatric Patients Ggaliwango Marvin		
AlgoCert: Adopt Non-transferable NFT for the Issuance and Verification of Educational Certificates using Algorand Blockchain Sarmistha Sarna		
Loss Function Computation using Machine Learning Algorithms Based on the Effects of Natural Disasters and Plant Diseases on Plant Growth Mohammad Faizul Kabir		
Zoom Link:	Zoom ID:	Password:

Tuesday – 07.00 PM – 10.00 PM	
Gala Dinner	Room: TBA