

AI-Driven Resilience: Building Robust, Adaptive Technologies for a Dynamic World

Monday, June 22

Session 1 10:00 – 11:00 pm Keynote Speech “ AI-Powered Cybersecurity and Intelligent Data Systems for the Next Generation of Computing ” Prof. Brij b Gupta, Director, International Centre for AI and Cyber Security Research and Innovations (CCRI), Distinguished Professor, Asia University, Taiwan

BREAK

12:00 -12:15	Science-Guided Multi-Task Deep Learning for Emulating APSIM Simulations for Root-zone Soil Moisture Forecasting Tanjim Bin Faruk, Abdul Matin, Rupasree Dey, Andrei Bachinin, Shrideep Pallickara and Sangmi Pallickara
12:15– 12:30	FloodSQL-Bench: A Retrieval-Augmented Benchmark for Geospatially-Grounded Text-to-SQL Hanzhou Liu, Kai Yin, Zhitong Chen, Chenyue Liu and Ali Mostafavi
12:30 –12:45	Trustworthy Anomaly Detection in Industrial IoT-Enabled Cyber-Physical Systems Using Explainable Ensemble Learning Tamara Zhukabayeva, Zulfiqar Ahmad, Nurdaulet Karabayev, Yerik Mardenov, Dilaram Baumuratova and Hela Elmannai
12:45– 1:00	Mitigating Catastrophic Forgetting in Robotic Waste Sorting: A Continual Learning Framework with Dynamic Experience Replay Youcef Djenouri, Vlad Licaret, Arnoud Jochemsen and Ahmed Nabil Belbachir

BREAK

Session 2

2:00 – 2:15	When Debate Fails: An Empirical Study of Incentive Misalignment in Prover–Estimator Games Hannah Guan and Charles Hou
2:15 – 2:30	Measuring Sustainability Maturity Stages and Charitable Giving: Leveraging NLP-based Textual Analysis Namchul Shin
2:30 – 2:45	Unsupervised Detection of Long-Term Idle Periods in Large-Scale On-Premises Server Fleets Ahmed Javed, Haneul Yang and Zohaib Shahid
2:45 – 3:00	A Lightweight Agentic AI Framework with DeepSeek-R1 for Adaptive Phishing URL Detection Akshat Gaurav, Varsha Arya, Amiya Nayak, Kwok Tai Chui and Brij B. Gupta
3:00 – 3:15	Continual Learning for Resilient Multimodal Misinformation Detection Across Sequential Crisis Events Bilal Ahmed Lodhi and Zeeshan Tariq

Tuesday, June 23

Session 1

10:00 – 11:00 pm Keynote Speech “ LLMs Meet Classical Algorithms: A Hybrid Approach for Large-Scale Optimization Problems ” Ravi Teja Pagidoju Senior Software Engineer Walmart

BREAK

12:00 –12:15	Building Resilient Educational AI Through Multimodal Context Fusion Donggil Song and Anne Lippert
12:15 –12:30	FrameLLM for Requirements Generation: A Framework for Reducing Prompt Dependency and Improving Requirement Clarity and Completeness Mahwish Kundi, Faraz Ahmad and Rosemary Monahan
12:30 –12:45	Towards Ethical AI Adoption in Academic Research: Insights from a Systematic Literature Review Faheem Ullah, Babar Shah, Ahmed Alshehhi, Abrar Ullah and Sajid Anwar
12:45 – 1:00	MSC-D3Net: A Resilient Multi-Scale Learning Framework for Adaptive Cross-Domain Scene Understanding in Remote Sensing Muhammad John Abbas, Muhammad Attique Khan, Ameer Hamza, Ghassen Ben Brahim and Jehad Ali

BREAK

2:00 –2 :15	Neighbourhood-Scale Typhoon Risk Mapping Using Machine Learning and SAR-Derived Impact Proxies: Cross-Event Evidence from Cebu City, Philippines Xin Zhou, Pavel Hejcik, Zhen Jin, Wei Chin Teoh, Anudari Batsaikhan, Shu Tian and Junhong Zhou
2:15- 2:30	Adaptive Consent in Crisis AI: A Privacy-Ethics Framework for Continual Data Use in Resilient Communities

	Haseeb Javed, Shynar Mussiraliyeva, Hayoung Oh and Farman Ali
2:30 – 2:45	Detection of Acute Cardiac Events using Adaptive Multimodal Deep Learning Inzamam Mashood Nasir, Sara Tehsin, Syeda Aimal Fatima Naqvi and Kumail Abbas
2:45 – 3:00	Toward Resilient Medical Multimodal AI: A Framework for Missing Modality Recovery under Clinical Constraints Jiahe Hou, John Moraros, Shuihua Wang and Guangliang Cheng
3:00 – 3:15	Optimizing Against Safety Representations: Activation-Guided Adversarial Suffixes and the Geometry of Refusal Ege Cakar, Hannah Guan and Kayden Kehe
3:15 – 3:30	AI Dependency Syndrome: Exploration and Identification via Blockchain-Based Machine Learning Approach Usama Arshad, Babar Shah, Mousa Al-Kfairy, Abrar Ullah, Zahid Halim and Sajid Anwar

Wednesday, June 24

Session 1

9:00 – 9:15	Position: The Iceberg of Pitfalls in LLM-Based Secure Code Generation Melissa Tessa, Iyiola Emmanuel Olatunji, Jacques Klein and Tegawendé Bissyande
9:15 – 9:30	Large Language Model (LLM) Based Resilient Intelligent Transport Systems Brij B. Gupta, Akshat Gaurav, Valerie Tang, Varsha Arya, Amiya Nayak and Kwok Tai Chui
9:30– 9:45	Self-Supervised Learning for Driver Distraction Detection: A Comparative Study with Traditional Supervised Models Luqman Ali, Mustaqeem Khan, Bilal Ahmad, Muhammad Saqib, Fady Alnajjar and Hamad Aljassmi
9:45 – 10:00	Real-Time Vehicle Repositioning through Fast Optimal Transport Suresh Chavhan, Sakshum Sharma and Deepak Gupta

BREAK

11:00 –11:15	Before We Trust Them: Decision-Making Failures in Navigation of Foundation Models Jua Han, Jaeyoon Seo, Jungbin Min, Sieun Choi, Huichan Seo, Jihie Kim and Jean Oh
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Panel Discussion

Building Resilient and Adaptive AI Systems: Challenges, Innovations, and Future Directions