











## **IEEE IEMCON 2025**

2025 IEEE 16th Annual Information Technology, Electronics and Mobile Communication Conference
Physical Conference (University of California, Berkeley, USA)

Date: 29 - 31 Oct 2025

# TECHNICAL SCHEDULE CONTENTS

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### DAY 1: 29th OCT 2025

TIME	PARALLEL SESSION
9:00 AM - 9:30 AM	INAUGURATION
9:30 AM – 11.00 AM	SESSION 1: ARTIFICIAL INTELLIGENCE AND DATA-DRIVEN TECHNOLOGIES [ROOM - SEQUOIA]
9:30 AM – 11:00 AM	SESSION 2: VLSI, SEMICONDUCTOR INNOVATION, AND NANO ELECTRONICS [ROOM– VENUE]
11:30 AM-1:00 PM	KEYNOTE SESSION [ROOM - SEQUOIA]
2:00 PM – 3:30 PM	SESSION 3: ARTIFICIAL INTELLIGENCE AND DATA-DRIVEN TECHNOLOGIES [ROOM - VENUE]
2:00 PM – 3:30 PM	SESSION 4: ARTIFICIAL INTELLIGENCE [ROOM - SEQUOIA]
4:00 PM – 6.00 PM	SESSION 5: AI-DRIVEN TECHNOLOGIES [ROOM NO – SEQUOIA]
4:00 PM – 6.00 PM	SESSION 6: ADVANCED MOBILE COMMUNICATION AND 6G RESEARCH [ROOM– VENUE]

	SESSION 1: ARTIFICIAL INTELLIGENCE AND DATA-DRIVEN TECHNOLOGIES				
	SESSION CHAIR: TRUNG H. DUONG (COLORADO STATE UNIVERSITY PUEBLO, USA)				
		<b>SESSION TIME: 9:30 AM – 11:00 AM</b>	I (DAY 1: 29 <sup>th</sup> OCT 2025)		
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY		
9.30 AM – 9.45 AM	1571187630	Kinetic Control Detection in Video via HAVOK Forcing for Low Resource Usage	Amit Bhatia (BAE Systems, USA)		
9.45 AM -10.00 AM	1571196285	SpiCAE: Spiking Contrastive Learning and Autoencoder for Network Intrusion Detection	Elijah Sagaran, Jacob Spier and Rashida Hasan (California State University, Northridge, USA)		
10.00 AM – 10.15 AM	1571196286	A Fusion Framework for Anomaly Detection in IoMT Environment Using GraphSAGE and Performer Transformer	Diego Arteaga, Andrew Boghosian, Angelica Marie Ignacio, Serineh Megerdichian, Jose Villalobos Carrillo and Rashida Hasan (California State University, Northridge, USA)		
10.15 AM -10.30 AM	1571199199	ML-Based Resource Dimensioning for 5G Core NFs	Fetahi Wuhib (Ericsson Research, Canada); Carla Mouradian (Ericsson Research, Canada & Ericsson, Sweden)		
10:30 AM – 10:45 AM	1571199483	Reframing Financial Forecasting with Information Processing Theory: A Conceptual AI Framework	Yara Mohammed (College of Information, USA & University of North Texas, USA); Koushik Sriram and Gahangir Hossain (University of North Texas, USA)		
10:45 AM – 11:00 AM	1571194708	Hybrid Ensemble and Deep Learning Architectures for Advanced Persistent Threat Detection	Saleem Ishaq Tijjani (Plymouth University, United Kingdom (Great Britain))		

#### SESSION 2: VLSI, SEMICONDUCTOR INNOVATION, AND NANO ELECTRONICS SESSION CHAIR: NIZAR TAYEM (TEXAS A&M UNIVERSITY COMMERCE, USA) SESSION TIME: 9:30 AM - 11:00 AM (DAY 1: 29th OCT 2025) PAPER NAME **AUTHORS WITH AFFILIATION & COUNTRY** TIME ALLOTTED PAPER ID 9.30 AM - 9.45 AM1571200035 Implementing Parallel Counters Based on Sorting Yuchen He and Behrooz Parhami (University of California, Santa Barbara, USA) Networks Strategies for Optimizing LPDDR5 Subsystem Maitrik Shah (Micron Technology Inc., USA); Sangeetha Chandran Sarala (Micron 9.45 AM - 10.00 AM1571203948 Technology, USA); Dhwanil Shah (Micron Technology Inc., USA) Performance Accelerating SSD System Validation for First 10.00 AM -10.15 AM 1571203707 Maitrik Shah (Micron Technology Inc., USA); Sangeetha Chandran Sarala (Micron Silicon Success Technology, USA); Dhwanil Shah (Micron Technology Inc., USA) 10.15 AM -10.30 AM 1571204243 New Designs for Voting Networks Based on the Behrooz Parhami (University of California, Santa Barbara, USA) Boyer-Moore Majority-Finding Algorithm Hanghui Deng (University of Electronic Science and Technology of China, China); 10:30 AM - 10:45 AMDrift-Driven 2DEG Surface Plasmons Analysis Ping Zhang (China); Yubin Gong (UESTC, China); Shengpeng Yang (University of 1571203843 Based on Electromagnetic and Hydrodynamic Electronic Science and Technology of China, China); Shaomeng Wang (UESTC, Views China); Yixin Peng (University of Electronic Science and Technology of China, China) Alexander P Banks (California State University, East Bay, USA); Ali Jalooli 10:45 AM – 11:00 AM Proof-at-the-Edge: Zk-SNARKs for Privacy-1571200814 (California State University, Dominguez Hills, USA) Preserving Wearable IoT Health Monitoring

**COFFEE BREAK** 

11:00 AM- 11:30AM

#### **KEYNOTE SESSION [DAY 1: 29th OCT 2025]**

TIME	NAME OF THE EVENT
11:30 AM – 12:15 PM	KEYNOTE ADDRESS BY DR. NAOMI GREWAL (DIRECTOR, RESEARCH AT LINKEDIN)
	TITLE OF TALK: TRAINING FOR COMPLEXITY: PREPARING THE NEXT GENERATION OF PROFESSIONALS IN AN AI-DRIVEN WORLD
12:15 PM – 1:00 PM	KEYNOTE ADDRESS BY PROF. JOZO DUJMOVIC (SAN FRANCISCO STATE UNIVERSITY, USA)
	TITLE OF TALK: GRADED LOGIC: CONCEPTS AND APPLICABILITY

1:00 PM-2:00 PM LUNCH BREAK

#### SESSION 3: ARTIFICIAL INTELLIGENCE AND DATA-DRIVEN TECHNOLOGIES

#### SESSION CHAIR: TRUNG H. DUONG (COLORADO STATE UNIVERSITY PUEBLO, USA)

SESSION TIME: 2:00 PM - 3:30 PM (DAY 1: 29<sup>th</sup> OCT 2025)

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2.00 PM – 2.15 PM	1571200244	Human-AI Collaboration Pipeline for Thematic Analysis: Example of VR- Supported Pulmonary Rehabilitation	Yunbing Bai and Aileen S Gabriel (The University of Arizona, USA); Joseph Finkelstein (University of Arizona, USA)
2.15 PM – 2.30 PM	1571200511	HyperSolver: A Practical Unified Framework for Large-Scale Combinatorial Optimization	Parsa Abadi (University of Western Ontario, Canada); Roberto Solis-Oba (University Western Ontario, Canada)
2.30 PM - 2.45 PM	1571200603	Consumer Taste Classification Using Transformer and BiLSTM Models on EEG- fNIRS Signals for Neuromarketing Promotion	Oyshi Pronomy P Sarker (California State University Fullerton, USA); Kiran George (California State University, Fullerton, USA)
2.45 PM – 3.00 PM	1571200743	A Neural Network TensorFlow Framework for PA Distortion Analysis and Mitigation	Luke McCubbin and Vincent Leung (Baylor University, USA); Sravya Alluri (UCSD, USA)
3.00 PM – 3.15 PM	1571200775	Integrated Smart Personal Protective Equipment for Mine Workers	Milka C I Madahana (University of the Witwatersrand, South Africa)
3.15 PM - 3.30 PM	1571200784	A Machine Learning Model Evaluation Metrics in Student Retention Prediction Beyond Relevance: A Scoping Review	Milka C I Madahana (University of the Witwatersrand, South Africa)

#### SESSION 4: ARTIFICIAL INTELLIGENCE SESSION CHAIR: AMIT BHATIA (BAE SYSTEMS, USA)

SESSION TIME: 2:00 PM - 3:30 PM (DAY 1: 29th OCT 2025)

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TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY	
2.00 PM – 2.15 PM	1571200787	Forensic Detection and Attribution of AI-Generated	Adiba Samreen Mahmud and Yasmeen Rawajfih (Tuskegee University, USA); Ross	
		Code: A Multi-Classifier Approach with CVE	Arnold (US Army, USA)	
		Validation		
2.15 PM – 2.30 PM	1571200839	A Real-Time Camera Processing Pipeline for	Harkirat S Hattar and Akhil Singamneni (Del Norte, USA)	
		Blindspot Detection and Correction in Autonomous		
		Vehicles with AI		
2.30 PM - 2.45 PM	1571201182	Reimagining Education: An Architectural Blueprint	Sudipta Sahana and Priyanshu Ghosh (University of Engineering and Management,	
		for a Synergistic AI-Driven Learning Environment	Kolkata, India); Chutiporn Anutariya (School of Engineering and Technology, Asian	
			Institute of Technology, Thailand)	
2.45 PM – 3.00 PM	1571203220	Energy-Efficient Encoding for Multi-Level Cell	Sullivan Gleason (Southeast Missouri State University, USA); Prince Kakadiya	
		PCM Using VQ-VAE-Based Masking	and Marjan Asadinia (California State University, Northridge, USA)	
3.00 PM – 3.15 PM	1571202286	Comparative Analysis of Transformer-Based	Cristopher C. Abalorio and Vicente A Pitogo (Caraga State University, Philippines)	
		Models for Automated Student Feedback		
		Sentiment Analysis and Summarization		
3.15 PM - 3.30 PM	1571204020	A Novel Adaptive Learning Framework Integrating		
		Item Response Theory, Bayesian Knowledge Tracing	Avyakt Agrawal (Woodward Academy, USA)	
		and Deep Learning with Confidence Calibrated		
		Feedback		

3:30 PM- 4:00 PM

**COFFEE BREAK** 

#### **SESSION 5: AI-DRIVEN TECHNOLOGIES**

SESSION CHAIR: UMME ZAKIA (NEW YORK INSTITUTE OF TECHNOLOGY, VANCOUVER, CANADA & FATIGUE SCIENCE, CANADA)

**SESSION TIME: 4:00 PM – 6:00 PM (DAY 1: 29th OCT 2025)** 

		DEDUCT: 111111 000 1111 (	
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4.00 PM – 4.15 PM	1571202364	A Hybrid Deep Learning Approach for Banana Disease Detection Integrating Convolutional Neural Networks with Image Processing Based Domain Knowledge	Joshua A Caalim (Caraga State University, Philippines & ACLC College of Butuan City, Inc., Philippines); Vicente A Pitogo and Mark Phil Banaybanay Pacot (Caraga State University, Philippines)
4.15 PM – 4.30 PM	1571203682	LLM-Assisted Alpha-Fairness for 6 GHz Wi-Fi/NR-U Coexistence: An Agentic Orchestrator for Throughput, Energy, and SLA	Qun Wang (San Francisco State University, USA & LBNL, USA); Yingzhou Lu (Stanford, USA); Guiran Liu, Binrong Zhu and Yang Liu (San Francisco State University, USA)
4.30 PM – 4.45 PM	1571203684	Improving the Generalization Performance of YOLO- Based Wildlife Detection Models in Camera Trap Images Using a Hyperparameter Tuning Framework	Mahesh Sharma, Saqib Gulzar and Md R Islam (Colorado State University Pueblo, USA); Garbriel Cosyleon (Colorado Department of Transportation, USA); Trung H. Duong (Colorado State University Pueblo, USA)
4.45 PM - 5.00 PM	1571203801	PerfSpark: Leveraging LLMs to Monitor and Diagnose Runtime Performance Decay	Nurmyrat Amanmadov (University of Washington, USA); Venkatesh Velugubantla (Meridian Cooperative, USA); Nayan Goel (Upgrade Inc, USA); Tarlan Abdullayev (Northeastern University, USA); Ayush Panchal (Independent Researcher, USA)
5.00 PM – 5.15 PM	1571203969	A Comparative Study of Federated Learning and Synthetic Data for Privacy-Aware Machine Learning	Akhtar Hussain (University of North Dakota, USA); Atiquer Rahman Sarkar (University of Manitoba, Canada); Eunjin Kim (University of North Dakota, USA); Muhammad Habib Ur Rehman (University of Bedfordshire, United Kingdom (Great Britain)); Noman Mohammed (University of Manitoba, Canada)
5.15 PM – 5.30 PM	1571203780	ArchCrafter: Leveraging LLMs to Scan and Interpretable Software Architecture Flaws	Srinivas Bhogavalli (Msr Technology Group Llc, USA); Raj Sonani (Cornell University, USA); Nayan Goel (Upgrade Inc, USA); Venkatesh Velugubantla (Meridian Cooperative, USA); Ayush Panchal (Independent Researcher, USA)
5.30 PM – 5.45 PM	1571200515	A Novel Approach to Fall Prediction and Prevention: Integrating Machine Learning and IoT for Elderly Safety	Ava P George (Fullerton College, USA)
5.45 PM – 6.00 PM	1571203735	Edge-FIT: Federated Instruction Tuning of Quantized LLMs for Privacy-Preserving Smart Home Environments	Vinay Venkatesh (Google, USA); Vamsidhar Reddy Kamanuru (USA); Lav Kumar and Nikita Kothari (Salesforce Inc, USA)

	SESSION CI	HAIR: AMIT BHATIA (BAE SYSTEMS, U SESSION TIME: 4:00 PM - 6.00 PM	•
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4.00 PM – 4.15 PM	1571182676	Real-Time Direction-of-Arrival Estimation for Unmanned Ground Vehicles Tracking	Nizar Tayem (Texas A&M University Commerce, USA) et. al.
4.15 PM – 4.30 PM	1571204166	Low Cost Methods for Estimating an Unknown Number of Sources for DOA	Ahmed Hussain (Prince Mohammed University, Saudi Arabia); Nizar Tayem (Texas A&M University Commerce, USA) et. al.
4.30 PM – 4.45 PM	1571199519	Efficient Simulation-Based Verification Using High- Level Design Error Models	Jasem Ali, Frank Tan and Antonio Sanchez (University of California Davis, USA); Savita Patil and Hussain Al-Asaad (University of California, Davis, USA)
4.45 PM - 5.00 PM	1571200622	Terahertz Wave Generation Based on Current- Induced Surface Plasmons in Graphene	Zijian Qiu and Shengpeng Yang (University of Electronic Science and Technology of China, China) et. al.
5.00 PM – 5.15 PM	1571201629	Design of a Millimeter-Wave Ultra-Wideband Dual- Polarized Quad-Ridged Horn Antenna	Hongtao Zhang and Bingyang Liang (University of Electronic Science and Technology of China, China) et. al.
5.15 PM – 5.30 PM	1571200820	Privacy-Aware Federated Learning for Health IoT Using CKKS Encryption	Rahul Kavati and Sriven Srilakshmi Pulkaram (CSUDH, USA) et. al.
5.30 PM – 5.45 PM	1571203715	A Comparative Survey of Mutation Testing Across Large Language Models, REST APIs, and Database Engines	Bouchaib Falah (Lincoln University, USA) & Al Akhawayn University, Morocco) et. al.
5.45 PM – 6.00 PM	1571200840	UltraVision: An Inclusive Home Security System Addressing Accessibility Requirements	Pranav Das (New Albany High School, USA); Utpal Das (Knitwell Group, USA)

## Day 2: 30th Oct 2025

TIME	PARALLEL SESSION
9:30 AM-11:00 AM	SESSION 7: CONSUMER ELECTRONICS AND AI [ROOM - SEQUOIA]
9:30 AM-10.15 AM	SESSION 8: ARTIFICIAL INTELLIGENCE [ROOM NO – VENUE]
11:30 PM – 1.00 PM	KEYNOTE SESSION
	[ROOM - SEQUOIA]
2:00 PM – 4:00 PM	TUTORIAL 1: APPLICATIONS ON
	GENERATIVE AI [ROOM NO – SEQUOIA]
2.00 PM-3:30 PM	SESSION 9: ARTIFICIAL INTELLIGENCE AND CYBER SECURITY
	[ROOM - VENUE]
4.00 PM- 6.00 PM	SESSION 10: APPLICATION OF RTIFICIAL INTELLIGENCE [ROOM -
	SEQUOIA]
4.00 PM- 5.45 PM	SESSION 11: APPLICATIONS OF AI IN CYBERSECURITY AND VLSI
	[ROOM NO – VENUE]

	SESSION 7: CONSUMER ELECTRONICS AND AI			
	SESSION CHAIR: NIZAR TAYEM (TEXAS A&M UNIVERSITY COMMERCE, USA)			
	SESSI	ON TIME: 9:30 AM – 11.00 AM (DAY 2: 3	30th Oct 2025)	
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY	
9.30 AM – 9.45 AM	1571204230	Band Power Associations of Memory in Older Adults Using Electroencephalography	Ben Le and Kiran George (California State University, Fullerton, USA)	
9.45 AM – 10.00 AM	1571203458	Enhancing Mixed Reality Accessibility for Color Vision Impaired Users	Haseeb Ali Khan (Sejong University, Korea (South)); Sitara Afzal (Sejong & Mixed Reality and Interaction Laboratory, Korea (South)); Kyungjin Han and Jong Weon Lee (Sejong University, Korea (South))	
10.00 AM -10.15 AM	1571203469	Toward Contactless HRV: Validation of Radar- Derived Heart Inter-Beat Variability	Aref Smiley (University of Arizona, Colledge of Medicine, USA); Joseph Finkelstein (University of Arizona, USA)	
10.15 AM -10.30 AM	1571200207	Transfer Learning for Efficient Domain Adaptation in Sequential Recommendation Systems	Vinay Venkatesh (Google, USA); Akshay Mittal (University of the Cumberlands, USA); Kathiresan Jayabalan (Sathyabama Institute of Science and Technology, India); Sankaranainar Parmasivan (Company, USA & Mastercard, USA)	
10:30 AM – 10:45 AM	1571200265	CARE-PCM: Classification and Analysis of Reliability with Efficient Models for PCM	Yanilette Montano (University of California, Irvine, USA); Marjan Asadinia (California State University, Northridge, USA)	
10:45 AM – 11:00 AM	1571203946	Demonstrating Simple Power Analysis on a B-163 Scalar Multiplier Using ChipWhisperer	Harshitha Ramesh and Hayssam El- Razouk (California State University, Fresno, USA)	

#### SESSION 8: ARTIFICIAL INTELLIGENCE

#### SESSION CHAIR: NIRMALYA THAKUR (SOUTH DAKOTA SCHOOL OF MINES AND TECHNOLOGY, USA)

#### **SESSION TIME: 9:30 AM – 10.15 AM (DAY 2: 30th Oct 2025)**

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TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY		
9.30 AM – 9.45 AM	1571203652	WCF-SGCN: Water Conservation Function	Xuelin Bai, Xianghong Lin, Xiangwen Wang, Xiaoqing Fan and Jinghui Yang		
		Assessment Based on Spatial Graph Convolution	(Northwest Normal University, China)		
		Networks			
9.45 AM – 10.00 AM	1571203653	SPCT: Spiking Point Cloud Transformer for Neuronal Morphological Classification	Mingshuai Yu, Xianghong Lin and Xiangwen Wang (Northwest Normal University, China)		
10.00 AM -10.15 AM	1571203799	Spiking Temporal Dual-Attention Network with Multi-Encoders for Time Series Forecasting	Wenqian Ma, Xianghong Lin, Xiangwen Wang, Xucheng Li and Wenting Yang (Northwest Normal University, China)		

11:00 AM-11:30 AM	COFFEE BREAK

#### **KEYNOTE SESSION [DAY 2: 30th Oct 2025]**

TIME	NAME OF THE EVENT	
11:30 AM-12:15 PM	KEYNOTE TALK BY DR. GUS HANNA (SAN DIEGO STATE UNIVERSITY, USA)	
	TITLE OF TALK: SECURING THE FUTURE: APPLYING AI TO THREAT DETECTION, CLOUD, AND DEVOPS	
12:15 PM - 1:00 PM	KEYNOTE TALK BY PROF. BOUCHAIB FALAH (LINCOLN UNIVERSITY, USA)	
	TITLE OF TALK: ESSENTIAL SOFTWARE TESTING TECHNIQUES FOR UNDERGRADUATE STUDENTS	

1:00 PM-2.00 PM	LUNCH BREAK
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# TUTORIAL 1: EVOLUTION AND APPLICATIONS ON GENERATIVE AND AGENTIC AI BY SUDIPTA SAHANA (UNIVERSITY OF ENGINEERING AND MANAGEMENT, KOLKATA)

2.00 PM - 4.00 PM

#### SESSION 9: ARTIFICIAL INTELLIGENCE AND CYBER SECURITY

SESSION CHAIR: AREF SMILEY (UNIVERSITY OF ARIZONA, COLLEDGE OF MEDICINE, USA)

SESSION TIME: 2.00 PM-3:30 PM (DAY 2: 30th Oct 2025)

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2.00 PM – 2.15 PM	1571204203	AI-Driven RISK Gameplay Analysis Using Stochastic Beam Search	Jacob Gillenwater, Brian T Bennett, Ghaith Husari and Jeff Roach (East Tennessee State University, USA)
2.15 PM – 2.30 PM	1571204217	Early Reactions to Measles and Chikungunya on TikTok: Which Outbreak Triggered More Fear, Toxicity, and Identity Attack?	Nirmalya Thakur and Faria Nishat Khan (South Dakota School of Mines and Technology, USA)
2.30 PM – 2.45 PM	1571204262	AI-Powered Cybersecurity Framework: From Reactive Defense to Proactive, Resilient, and Autonomous Protection	Richa Trivedi (Amazon, USA)
2.45 PM -3.00 PM	1571204282	Sentiment-Driven Sector Forecasting: An NLP Based Approach to Investment Strategy	Anthony Taylor and Marjan Asadinia (California State University, Northridge, USA)
3.00 PM – 3.15 PM	1571199208	Anomaly Detection in Distribution Power Grids Using Recurrent Neural Networks: A Digital Twin Simulation Approach	Barsha Upadhyay (The University of Toledo, USA); Ahmad Y Javaid and Weiqing Sun (University of Toledo, USA); Raghav Khanna and William Mccreary (The University of Toledo, USA)
3.15 PM – 3.30 PM	1571203929	Secure and Reusable Memory Protection for AVR Microcontrollers Using an External Tamper- Detection Countermeasure	Kanwalinderjit Kaur (California State University, USA); Atharva Koli (CSUB, USA)

3.30 PM- 4.00 PM

**COFFEE BREAK** 

#### SESSION 10: APPLICATION OF ARTIFICIAL INTELLIGENCE

SESSION CHAIR: HAYSSAM EL-RAZOUK (CALIFORNIA STATE UNIVERSITY,

FRESNO, USA)

SESSION TIME: 4.00 PM - 6.00 PM (DAY 2: 30th Oct 2025)

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
4:00 PM – 4:15 PM	1571193218	Orchestrating Cyber Threat Intelligence Using T-Pot and MITRE ATT&CK: From Cyber Attack Data Collection to	Jaime Velasquez, Jean Angulo, Caroline Mazutti and Humberto Goncalves (New York Tech, Vancouver, Canada); Adetokunbo Makanju (New York Institute of
		Advanced Insights	Technology - Vancouver, Canada); Raqeebir Rab (Ahsanullah University of
			Science and Technology, Bangladesh); Sara Khanchi (New York Tech -
			Vancouver, Canada); Umme Zakia (New York Institute of Technology,
			Vancouver, Canada & Fatigue Science, Canada)
	1571204263	A Memory-Aware Valence Framework for Avoidance,	Nirmalya Thakur (South Dakota School of Mines and Technology, USA)
4:15 PM – 4:30 PM		Recovery, and Goal Pursuit in Autonomous Agents	
	1571199496	Learning-to-Explain Cybersecurity Through Q20 Game: A	Nusrat Mary, Gahangir Hossain and Kinshuk (University of North Texas, USA)
4:30 PM – 4:45 PM		Framework for Explainable Cybersecurity Education	
	1571200222	NLP-Based Cyber Threat Data Analysis with MITRE	Haochen Zhang, Haoyang Hong, Binghan Shen and Marlon Esteban Brenes Rojas
4:45 PM – 5:00 PM		ATT&CK Techniques	(New York Tech, Vancouver, Canada); Ezzeldin Tahoun (Cypienta, Canada);
			Umme Zakia (New York Institute of Technology, Vancouver, Canada & Fatigue
	1571202020		Science, Canada)
5.00 DM 5.15 DM	1571203030	SafeChat: AI-Driven Real-Time Scam Risk Scoring for	Julia Tyszkiewicz and Shahid Noor (Northern Kentucky University, USA)
5:00 PM – 5:15 PM		Messaging Applications	
	1571203326	A Decompilation-Driven Framework for Malware	Aniesh Chawla (USA); Udbhav Prasad (Databricks Inc., USA)
5:15 PM – 5:30 PM		Detection with Large Language Models	
	1571204222	Anti-Eavesdropping Multicast GAN Steganography for	Keru Fu (SFU University, Canada); Sara Khanchi (New York Tech - Vancouver,
5:30 PM – 5:45 PM		Botnet Stealth Communication	Canada)
	_	Synthetic Data as a Catalyst: Applications in Healthcare,	Vaibhavi Tiwari (Montclair State University, USA & NYC DOHMH, USA);
5:45 PM – 6.00 PM	1571201476	Environment, and Beyond	Venkata Sai Ram Dasari (Montclair State University, USA); Krishanu Agrawal
		Environment, and Bojona	(Stevens Institute of Technology, USA)

	SESSION 11: APPLICATIONS OF AI IN CYBERSECURITY AND VLSI				
SESSION CHAIR: ASHOK VARDHAN RAJA (PURDUE UNIVERSITY NORTHWEST, USA)					
	SES	SION TIME: 4.00 PM – 5:45 PM (DAY 2: 30t)	h Oct 2025)		
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY		
4:00 PM – 4:15 PM	1571204244	Mitigating Cryptocurrency Misuse: A Survey with a Cross-Domain Adaptive Framework	Vaibhavi Tiwari (Montclair State University, USA & NYC DOHMH, USA); Venkata Sai Ram Dasari (Montclair State University, USA); Krishanu Agrawal (Stevens Institute of Technology, USA)		
4:15 PM – 4:30 PM	1571199756	A Quaternary Interpretation of Quantum Dynamics (QIQD) Dialogic Computer	Pravir Malik (Deep Order Technologies, USA); Ken Hilton (Phractal Systems, USA)		
4:30 PM – 4:45 PM	1571200250	QIQD Dialogic Quantum Bioenergetics with OQE Seeding for ATP Enhancement	Pravir Malik (Deep Order Technologies, USA)		
4:45 PM – 5:00 PM	1571204224	Proactive Soft Error Prediction in Multi-Level Cell PCM Using Machine Learning	Solomon Xu (University of California, Los Angeles, USA); Prince Kakadiya and Marjan Asadinia (California State University, Northridge, USA)		
5:00 PM – 5:15 PM	1571199054	A Machine Learning Approach to Sleep Stage Classification in Mice Using Polysomnography	David F Rivas (Columbia University, USA & State University of New York - New Paltz, USA); Min Chen (State University of New York - New Paltz, USA); Rebecca Muhle (Columbia University, USA)		
5:15 PM – 5:30 PM	1571200717	Graph Signal Prediction Using Learned Laplacian with Application to Weather Data	Christopher Duran and Jing Guo (California State University, Chico, USA)		
5:30 PM – 5:45 PM	1571204250	Measuring Far-UVC Radiation Using off-the-Shelf Sensors and Spectrometer: A Comparative Study	Cleonilson Protasio de Souza (Federal University of Paraiba, Brazil); Ane Polline Lacerda Protasio (Federal University of Paraíba, Brazil); Thalita Ferreira Cavalcanti (Federal University of Paraíba, Brazil & Universidade Federal da Paraíba, Brazil); Nataly Albuquerque dos Santos (Federal University of Paraíba, Brazil); Virgínia Vieira Aires (Federal University of Paraiba, Brazil)		

## Day 3: 31<sup>ST</sup> Oct 2025

TIME	PARALLEL SESSION
9:30 AM - 11:00 AM	SESSION 12: CYBERSECURITY AND BLOCKCHAIN FOR ICT SYSTEMS [ROOM - SEQUOIA]
9:30 AM - 11:15 AM	SESSION 13: CYBERSECURITY AND BLOCKCHAIN [ROOM NO – VENUE]
11:30 PM - 1:00 PM	KEYNOTE SESSION [ROOM - SEQUOIA]
2:00 PM - 4:00 PM	TUTORIAL 2 [ROOM NO- SEQUOIA]
2:00 PM - 3:30 PM	SESSION 20: ARTIFICIAL INTELLIGENCE AND BIG DATA [ROOM NO. – VENUE]
4:00 PM - 5:30 PM	SESSION 22: INTERNET OF THINGS AND AI [ROOM NO. – SEQUOIA]
4:00 PM - 5:30 PM	SESSION 23: COMMUNICATION AND AI [ROOM NO. – VENUE]
6:00 PM – 7:00 PM	VALECDICTORY SESSION [ROOM - SEQUOIA]

#### SESSION 12: CYBERSECURITY AND BLOCKCHAIN FOR ICT SYSTEMS

#### SESSION CHAIR: SHAHAB TAYEB (CALIFORNIA STATE UNIVERSITY, FRESNO, USA)

SESSION TIME: 9:30 AM-11:00 AM (DAY 3: 31ST Oct 2025)

	SESSION TIME. 9.50 AM (DAT 5. 51 OCT 2025)			
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY	
9:30 AM – 9:45 AM	1571187972	Designing High-Throughput Event-Driven Architectures for E-Commerce Fulfillment at Global Scale	Karan Kumar Ratra (Walmart Global Tech, USA); Dhruv Seth (Walmart Labs, USA); Hemant Burman (Walmart, USA & Google, USA); Deepika Verma (Walmart Global	
			Tech, USA)	
9:45 AM -10:00 AM	1571202274	Side Channel Power Analysis on Area Efficient Montgomery		
		Ladder Algorithm for Elliptic Curve Scalar Multiplication	Eric K Rivera and Hayssam El-razouk (California State University, Fresno, USA)	
10:00 AM – 10:15 AM	1571203479	A Machine Learning-Driven Framework for Cybersecurity in VANETs: Streamlining Nash Equilibrium Identification	Farha Jahan and Julia Devore (Ohio Northern University, USA)	
10:15 AM -10:30 AM	1571199510	Designing Accessible Cybersecurity Curriculum for K-12 Educators: A Content Analysis of the PERFECT	Tayiba Raheem and Gahangir Hossain (University of North Texas, USA); Mikyung Shin (Illinois State University, USA)	
		Project's Framework		
10:30 AM – 10:45 AM	1571200215	Evaluating Security Checks Against Malicious Payloads	Lalchandra Rampersaud and Behzad Ousat (Florida International University, USA);	
		with Forged Signatures	Seyed Ali Akhavani (Northeastern University, USA); Javad Zandi (Florida	
			International University, USA); Selcuk Uluagac (Florida International University & School of Computing and Information Sciences, USA); Amin Kharraz (Florida	
			International University, USA)	
10:45 AM – 11:00 AM	1571204249	EPXcoin: Blockchain-Enabled Electricity Power eXchange	Madhusudan Singh (Penn State University & Blockchain Data Intelligence Lab, USA);	
		Mechanism in the Smart City	Dhananjay Singh (Pennsylvania State University, USA & The Pennsylvania State	
			University, USA); Jong-Hoon Kim (Kent State University, USA)	

SESSION 13: CYBERSECURITY AND BLOCKCHAIN				
SESSION CHAIR: ASHOK VARDHAN RAJA (PURDUE UNIVERSITY NORTHWEST, USA)				
		<b>SESSION TIME: 9:30 AM-11:15 AM (D</b>	AY 3: 31 <sup>ST</sup> Oct 2025)	
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY	
9:30 AM – 9:45 AM	1571203476	On the Effectiveness of End-Users' Data Backup Practices Against Data Corruption	Lalchandra Rampersaud, Behzad Ousat and Caitlin Brown (Florida International University, USA); Selcuk Uluagac (Florida International University & School of Computing and Information Sciences, USA); Amin Kharraz (Florida International University, USA)	
9:45 AM -10:00 AM	1571200843	Python-Based Architectural Framework of End-to- End BB84 Noise Simulation	Larry McMahan and Aditya Das (ASDRP, USA); Sophia Ren (National Graphene Research and Development Centrr, USA); Samiha Das, Elaine Huang, Sai Sanjay Devi and Ashvik Ghosh (ASDRP, USA)	
10:00 AM – 10:15 AM	1571200516	A Hybrid Framework for Dynamic Patient Consent Management Using Blockchain and OAuth 2.0	Raghu Avula and Cliff Zou (University of Central Florida, USA)	
10:15 AM -10:30 AM	1571204271	From Detection to Action: A Concept-Based Framework to Reduce Dwell Time in IT Infrastructure	Richa Trivedi (Amazon, USA)	
10:30 AM – 10:45 AM	1571204208	Da Vinci: A Forensic Tool Recommendation System	Harshith Sunkara, Gnaneswar Naidu Reddy and Grace Sarah Sunitha Yenubari (New York Tech, Vancouver, BC, Canada); Umme Zakia (New York Institute of Technology, Vancouver, Canada & Fatigue Science, Canada)	
10:45 AM – 11:00 AM	1571203807	CodeClarity: A Framework for Monitoring Code Quality Erosion with LLMs	Srinivas Bhogavalli (Msr Technology Group Llc, USA); Raj Sonani (Cornell University, USA); Hema Yalamancheli (Tyler Technologies Inc, USA); Balajee Asish Brahmandam (University of Texas Austin, USA)	
11.00 AM – 11:15 AM	1571178639	AI-Enhanced API Gateway: a Unified Framework for Security and Performance for Next Generation Microservies	Karan Kumar Ratra (Walmart Global Tech, USA); Dhruv Seth (Walmart Labs, USA); Deepika Verma (Walmart Global Tech, USA); Hemant Burman (Walmart, USA & Google, USA)	

11:00 AM-11:30 AM

#### **COFFEE BREAK**

#### **KEYNOTE SESSION [DAY 3: 31<sup>ST</sup> Oct 2025)**

TIME	NAME OF THE EVENT
11:30 AM-12:15 PM	KEYNOTE TALK BY DR. JIANG GUO (CALIFORNIA STATE UNIVERSITY, USA)
	TITLE OF TALK: ENHANCING FORECASTING ACCURACY THROUGH ENSEMBLE MODELING APPROACHES
12:15 AM-1:00 PM	PANEL DISCUSSION BY DR. MADJID FATHI (UNIVERSITY OF SIEGEN, GERMANY), DR. REZA ALAM (UNIVERSITY OF CALIFORNIA, BERKELEY), DR. PHILLIP BRADFORD (UNIVERSITY OF CONNECTICUT, USA)
	TITLE OF TALK: XAI – EXPLAINABLE AI AND ITS IMPACT IN ENGINEERING 5.0

LUNCH BREAK	1.00 PM-2.00 PM	
TUTORIAL 2: On Aspects of Virtual Reality By Dr. Phillip Bradford (University of Connecticut, Stamford,	2.00 PM- 4.00 PM USA)	

## SESSION 14: ARTIFICIAL INTELLIGENCE AND BIG DATA SESSION CHAIR: FARHA JAHAN (OHIO NORTHERN UNIVERSITY, USA) SESSION TIME: 2:00 PM -3.30 PM (DAY 3: 31<sup>ST</sup> Oct 2025)

TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY
2:00 PM – 2:15 PM	1571204207	AeroNav: A Fine-Tuned LLM Framework to Enhance LLM-UAV's Aerial Navigation Task Performance	Karthisri Meghana Guntupalli and Ashok Vardhan Raja (Purdue University Northwest, USA); Vidhyashree Nagaraju (Embry-Riddle Aeronautical University, USA)
2:15 PM – 2:30 PM	1571203711	Safety Evaluation of Artificial Intelligence and Machine Learning Algorithms Applied to Industrial Robot Arms	Brook Abegaz (Loyola University Chicago, USA)
2:30 PM – 2:45 PM	1571200742	Robotic Control Policies Using Deep Reinforcement Learning	George James and Trung H. Duong (Colorado State University Pueblo, USA)
2:45 PM -3:00 PM	1571203701	Payload Optimization for the Internet of Oceanic Things	Shahab Tayeb (California State University, Fresno, USA); Izaiah Benavides (California State University, USA); Reza Alam (University of California Berkeley, USA)
3:00 PM – 3:15 PM	1571203893	Systematic Exploration of LinuxPTP Configuration in Multi-Hop Networks Using SARB	Tim Brockmann (University of Rostock, Germany); Michael Rethfeldt (University of Rostock & Institute of Applied Microelectronics and Computer Engineering, Germany); Benjamin Beichler (University of Rostock, Germany); Frank Golatowski (University of Rostock & Institute of Apllied Microelectronics and Computer Engineering, Germany); Christian Haubelt (University of Rostock, Germany)
3:15 PM – 3:30 PM	1571203689	Low-Latency Real-Time Data Storage for Zigbee- Connected Autonomous Surface Vehicles	Shahab Tayeb (California State University, Fresno, USA); Kavan Singh (California State University, USA); Reza Alam (University of California Berkeley, USA)

03:30 PM - 04:00 PM	COFFEE BREAK

#### **SESSION 15: INTERNET OF THINGS AND AI** SESSION CHAIR: FARHA JAHAN (OHIO NORTHERN UNIVERSITY, USA) SESSION TIME: 4:00 PM - 5:30 PM (DAY 3: 31ST Oct 2025) **AUTHORS WITH AFFILIATION & COUNTRY** TIME ALLOTTED PAPER ID **PAPER NAME** 1571203993 Non-Wearable Survey-Based Deep Learning Umme Zakia (New York Institute of Technology, Vancouver, Canada & Fatigue Techniques for Measuring Fatigue - Predicting Science, Canada); Luis Lopez, Paul Kenny and David Mcgrail (Fatigue Science, 4:00 PM - 4:15 PM Mining Workers' Readiness Vancouver, BC, Canada) A Hybrid Edge-Cloud Smart Door Surveillance Chuan-En Hou and Regina Sliusar (New York Tech (NYIT), Canada): Armin 1571203930 4:15 PM - 4:30 PM System with Real-Time Risk Assessment and Secure Ghauforian (The Door Face Panel, Canada); Tokunbo Makanju (NYIT, France); Umme Access Control Zakia (New York Institute of Technology, Vancouver, Canada & Fatigue Science, Canada) Evaluating AI-Assisted Performance Review Tools: A 1571205321 4:30 PM - 4:45 PM Framework for Fairness, Efficiency, and Usability Gaurav Nanda (Independent Researcher, USA) 1571201383 Adversarial Robustness in Cloud-Native Core Banking Systems: Topological Data Analysis (TDA) 4:45 PM - 5:00 PMRajesh Vayyala (PRA Group Inc, USA) for AI Model Integrity Under Cyber-Physical Attacks BugBlaze: An Explainable Framework for Detecting Hema Yalamancheli (Tyler Technologies Inc, USA); Nazia Shaik (Merck, USA); 1571203926 Latent Defect Ignitions in Software Systems Nurmyrat Amanmadov (University of Washington, USA); Tarlan Abdullayev 5:00 PM - 5:15 PM (Northeastern University, USA); Balajee Asish Brahmandam (University of Texas

#### All the timings are given in Pacific Daylight Time (PDT (GMT+7))

SoK: Synthetic Data Generation for Bias Mitigation

1571204213

5:15 PM - 5:30 PM

Austin, USA)

Savannah N Shannon and Md mahfuzur Rahman (Clark Atlanta University, USA);

Kishor Datta Gupta (Clark Atlanta University, USA & Silicon Orchard Ltd,

Bangladesh); Roy George (Clark Atlanta University, USA)

SESSION 16: COMMUNICATION AND AI							
SESSION CHAIR: GAHANGIR HOSSAIN (UNIVERSITY OF NORTH TEXAS, USA)  SESSION TIME: 4:00 PM - 5:30 PM (DAY 3: 31 <sup>ST</sup> Oct 2025)							
TIME ALLOTTED	PAPER ID	PAPER NAME	AUTHORS WITH AFFILIATION & COUNTRY				
TIME ALLOTTED		· ·	AUTHORS WITH AFFILIATION & COUNTRY				
4:00 PM – 4:15 PM	1571203500	Over-the-Air Federated Transformer Learning for Dynamic 6G Network Slicing and Real-Time Edge Intelligence	Santosh Kumar (HCLTech, USA)				
4:15 PM – 4:30 PM	1571204227	Hybrid CNN-BiLSTM for Skeleton-Based Human Activity Recognition	Oussema Kirmani and Sazia Mahfuz (Acadia University, Canada)				
4:30 PM – 4:45 PM	1571203506	AI-Driven Digital Health: Pioneering Innovations, Overcoming Challenges, and Shaping Future Frontiers	Santosh Kumar (HCLTech, USA)				
4:45 PM – 5:00 PM	1571200031	Barriers to Integrating Low-Power IoT in Engineering Education: A Survey of the Literature	Vladimir Sanchez Padilla (Virginia Polytechnic Institute and State University, USA); Albert Espinal (Escuela Superior Politecnica del Litoral & ESPOL, Ecuador); Jose Cordova-Garcia (ESPOL, Ecuador); Lisa Schibelius (Virginia Tech, USA)				
5:00 PM – 5:15 PM	1571203762	EdgeCareRT: A Real-Time Federated Generative AI Framework for Clinical Decision Support in Mobile and Remote Healthcare Settings	Santosh Kumar (HCLTech, USA)				
5:15 PM – 5:30 PM	1571204089	Leveraging CNN-Based Deep Learning Learning Model to Enhance Wound Healing Assessment	Anay Ghosh, Avijit Chakraborty, Rupsa Bhattacharya, Dibyajit Lahiri, Moupriya Nag and Sudipta Sahana (University of Engineering and Management, Kolkata, India)				

	VALEDICTORY SESSION	6:00 PM – 7:00 PM
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