

Local US Central		<b>Aug 4, Monday</b>	
7:30 AM	8:30 AM	Arrival/Registration / Breakfast	
8:30 AM	9:00 AM	Opening - Umit Ogras, Priya Panda, Fatemeh Afghah	
9:00 AM	10:00 AM	Keynote 1 - Prof. Diana Marculescu - Energy Efficient Generative AI from Cloud to Edge	
10:00 AM	10:30 AM	Tea/Coffee Break	
10:30 AM	12:10 PM	Session 1A	Session 1B
		Special Session 1	
12:10 PM	1:30 PM	Lunch	
1:30 PM	3:00 PM	Session 2A	Session 2B
		Special Session 2	
3:00 PM	3:30 PM	Networking & Tea/Coffee	
3:30 PM	5:00 PM	Session 3A	Special Session 3
		TCDE-Sponsored Workforce Development Panel	
5:00 PM	6:00 PM	Networking	
Local US Central		<b>Aug 5, Tuesday</b>	
		Arrival/Registration / Breakfast	
9:00 AM	10:00 AM	Keynote 2 - Dr. Vivek Prasad, Vice President of Design Engineering Ecosystem Enablement, NATCAST	
10:00 AM	10:30 AM	Tea/Coffee Break	
10:30 AM	12:30 PM	Session 4A	Session 4B
		Special Session 4	
12:30 PM	1:30 PM	Lunch	
1:30 PM	2:30 PM	Keynote 3: Mandy Pant	
2:30 PM	3:30 PM	Engagement & Outreach Panel	
3:30 PM	3:45 PM	Tea/Coffee Break	
3:45 PM	5:45 PM	Session 5A	Session 5B
		Tutorial 2 (TBD)	
		<b>Banquet Dinner (ticket needed)</b>	
Local US Central		<b>Aug 6, Wednesday</b>	
		Arrival/Registration / Breakfast	
9:00 AM	10:00 AM	Keynote 4 - Prof. Randall Berry	
10:00 AM	10:30 AM	Tea/Coffee Break	
10:30 AM	12:30 PM	Session 6A	Session 6B
		Session 6C	
12:30 PM	1:30 PM	Lunch	
1:30 PM	2:00 PM	Awards & Closing	

### Zoom Links

Room 313 <https://us06web.zoom.us/j/86498833000>

Room 232 <https://us06web.zoom.us/j/84529776114>

Room 235 <https://us06web.zoom.us/j/84415306512>

<b>Aug. 4, Monday</b>			
<b>Time</b>	<b>Session Name</b>	<b>Paper Information</b>	<b>Room</b>
8:30-9:00 am	Opening		313
9:00-10:00 am	<i>Keynote 1</i>	<i>Keynote 1 - Prof. Diana Marculescu - Energy Efficient Generative AI from Cloud to Edge</i>	313
10:00-10:30 am		Break	
10:30-12:30 pm	<b>Session 1A</b>		232
Session Chair: Abhishek Moitra	In Person	Accelerating Hardware-Aware NAS with ML-Based Edge GPU Performance Modeling (1153) Aishneet Juneja, Matthew Grenier, Md Hasibul Amin and Ramtin Zand	
	In Person	Hardware-efficient tractable probabilistic inference for Neurosymbolic AI applications (8927) Jelin Leslin, Martin Trapp and Martin Andraud	
	In Person	Performance Prediction of SystemC TLM-2.0 Contention-Aware DNN Models (2387)* Maha Bhatti and Emad Arasteh	
	In Person	Cognitive Reserve Measurement: A Mobile Application and a Framework for Detecting, Monitoring and Enhancing Cognitive Resilience (760) Ayesha Noshin, Yagna Manasa Boyapati, Maggie Beach and Arshia Kha	
10:30-12:30 am	<b>Session 1B</b>		235
Session Chair: Miao Sun, Akshay Sharma	Virtual	An Arbitrary Kernel Size Applicable Universal Flexible-Oriented Network on Chip (UFONoC) Neural Network Accelerator with AXI4-stream Data Transmission Protocol (2321) Kun-Chih Chen, Yi-Sheng Liao, Wei-Ren Syu, Hus-Chi Chen and Pin-Ching Shen	
	Virtual	InSureNet: A Graph Transformer Network Approach for Health Insurance Fraud Detection (8502) Aref Dorahaki, Mohamadreza Khanmohamadi and Bahar Farahani	
	Virtual	Development of Methodology of Graph Neural Networks Application in Recommender Systems (6394) Mariia Bulycheva and Eugene Alooeff	

	Virtual	Context-Aware Multi-Step Imputation for Univariate Temperature Time Series Using BiLSTM (8400) Sahibzada Saadoon Hammad and Sergio Trilles Oliver	
	Virtual	LANTNER - Annotation via Large Language Models for Novel Tasks in Named Entity Recognition (0689) William Brach, Adam Novocky, Jakub Jelinek, Kristián Košťál and Michal Ries	
10:30-12:10 am	<b>Special Session 1</b>	<b>LLM 4 EDA/Security</b>	<b>313</b>
Session Chair: Rolf Drechsler, Deliang Fan	In Person	Prompt. Verify. Repeat: LLMs in the Hardware Verification Cycle (7660) Muhammad Hassan, Mohamed Nadeem, Khushboo Qayyum, Chandan Kumar Jha and Rolf Drechsler	
	In Person	Beyond Verilog: Agents for Emerging HDLs (3453) Farzaneh Rabiei Kashanaki, Mark Zakharov and Jose Renau	
	In Person	Uncertainty-Aware LiDAR-Camera Autonomy via Conformal Prediction and Principled Abstention (9077) Divake Kumar, Sina Tayebati, Nastaran Darabi, Vita Pi-Ho Hu and Amit Ranjan Trivedi	
	In Person	Speedy MAST3R (2450) Jingxing Li, Yongjae Lee, Abhay Kumar Yadav, Cheng Peng, Rama Chellappa and Deliang Fan	
12:10-1:30 pm		Lunch	
1:30-3:00 pm	<b>Special Session 2</b>	<b>AI/LLM Accelerators</b>	<b>313</b>
Session Chair: Shaahin Angizi, Abhishek Moitra	Virtual	Acceleration of Large Language Models with Emerging Compute and Communication Technologies (2827) Sharin Shahana K C, Sumit K Mandal and Biresh Kumar Joardar	
	Virtual	Dyna-Optics: Architecting a Channel-Adaptive DNN Near-Sensor Optical Accelerator for Dynamic Inference (6820) Deniz Najafi, Wanhao Yu, Mehrdad Morsali, Pietro Mercati, Mohsen Imani, Mahdi Nikdast, Li Yang, and Shaahin Angizi	
	Virtual	LLM-NPU: Towards Efficient Foundation Model Inference on Low-Power Neural Processing Units (3683)	

		Arnab Raha, Souvik Kundu, Sharath Nittur Sridhar, Shamik Kundu, Soumendu Kumar Ghosh, Alessandro Palla, Arghadip Das, Darren Crews and Deepak A Mathaikutty	
	Virtual	TimelyHLS: LLM-Based Timing-Aware and Architecture-Specific FPGA HLS Optimization (2676) Nowfel Mashnoor, Mohammad Akyash, Hadi Kamali and Kimia Azar	
1:30-3:00 pm	<b>Session 2A</b>		<b>232</b>
Session Chair: George Tzimpragos	Virtual	Collision-Aware Formation Control of Nano-Quadrotors: Theory and Experiments (5364)* Anh Tung Nguyen, Binh Nguyen, Truong X. Nghiem and Sung Kyung Hong	
	In-Person	Multi-Modal Vision at the Edge: Toward Low-Latency Perception for Autonomous Systems (9665)* Lily Lamb, Mohammadreza Mohammadi and Ramtin Zand	
	Virtual	AI-Driven Anticipation of Vehicle Drift Dynamics (6258) Ines Rito Lima, José Santos-Victor and Yukie Nagai	
	Virtual	Power Edge Node Resource Scheduling Mechanism Empowered by Deep Reinforcement Learning (7713) Cong Hu, Ningge Ding, Huimin Fang, Yujia Zhai, Pengfei Yu and Fan Zhang	
1:30-3:00 pm	<b>Session 2B</b>	<b>AI/LLM Accelerators</b>	<b>235</b>
Session Chair: Jennifer Volk	Virtual	The Impact of Chunking Strategies on Domain-Specific Information Retrieval in RAG Systems (2729) Maximilian Staebler, Tobias Müller, Steffen Turnbull, Chris Langdon and Frank Köster	
	Virtual	REACT: Reinforcement Learning for Adaptive ECG Anonymization and Privacy Threat Mitigation (1626)* Aniruddha Datta, Tamonash Bhattacharyya, Elahe Khatibi, Agastya Seth, Ziyu Wang, Sanaz Rahimi Moosavi, Amir Rahmani, Farshad Firouzi and Krishnendu Chakrabarty	
	Virtual	Evaluation of LLM Powered Agentic AI for Solving Multi-Arm Bandit Problems (3123) Junaid Farooq and Jawad Hazime	

	Virtual	Optimizing Financial Decision Making in Cloud Environments: A GenAI-driven Approach to Convert Natural Language to SQL (2806) Gokul Naidu, Pratima Chinta, Manjunatha B and Anand Ponnath	
3:00-3:30 pm		Networking & Tea/Coffee	
3:30-5:20 pm	<b>Special Session 3</b>	<b>LLM for EDA</b>	<b>235</b>
Session Chair: Farshad Firouzi, Sanmitra Banerjee	Virtual	Multimodal LLM-Guided Sequential Detection of Cyber Threats in Electric Vehicle Charging Systems (3380) Ritesh Honnalli and Junaid Farooq	
	Virtual	Towards LLM-based Root Cause Analysis of Hardware Design Failures (3870) Siyu Qiu, Muzhi Wang, Raheel Afsharmazayejani, Mohammad Moradi Shahmiri, Benjamin Tan and Hammond Pearce	
	Virtual	Silicon Whisperers: Improving Test Quality and Cost in the Age of Generative AI (3215) Sanmitra Banerjee, Jonti Talukdar and Farshad Firouzi	
	Virtual	LLM-Sec: Closing the Security Loop using LLMs for AI-guided Secure Hardware Design (8517) Jonti Talukdar, Sanmitra Banerjee and Farshad Firouzi	
	In Person	Efficient Programming on Heterogeneous Accelerators, Peipei Zhou	
3:30-5:00 pm	<b>Session 3A</b>		<b>232</b>
Session Chair: Yatharth Agarwal, Florenc Demrozi	Virtual	WiSe4Car: A Dataset for WiFi Sensing in Automotive Vehicles (4083) Daniel Markert, Estelle Wünsche, Hussein Kerdi, Erik Leo Hass, Ian Robert Blake, Yannic Warias, Ana Perez Grassi and Alejandro Masrur	
	Virtual	Few-Shot Learning for Hand-Based Micro Activity Recognition (7174) Florenc Demrozi and Fadi Al Machot	
	In Person	A Multi-Modal IoT Node for Energy-Efficient Environmental Monitoring with Edge AI Processing (8808) Philip Wiese, Victor Kartsch, Marco Guermandi and Luca Benini	

	Virtual	PRISM: Toward Energy-Efficient AIoT with Processing-In-Sensor+Memory in Battery-Free Devices (4155, S) Arghadip Das, Yatharth Agarwal, Chunguang Wang, Arnab Raha, Sandeep Krishna Thirumala, Sumeet Kumar Gupta and Vijay Raghunathan	
3:30-5:00 pm	<b>Panel</b>	<b>Semiconductor Workforce Development Panel</b>	<b>313</b>
Session Chair: Setareh Behroozi	In Person	Grant Emmel, Faculty Instructor at Madison College	
		Vivek Prasad, Vice President of Design Engineering Ecosystem Enablement, NATCAST	
		Jennifer Volk, Asst. Professor, University of Wisconsin-Madison	
		Daniel van der Weide, Professor, University of Wisconsin-Madison	
<b>Aug 5, Tuesday</b>			
<b>Time</b>	<b>Session Name</b>	<b>Paper Information</b>	
9:00-10:00 am	<b>Keynote 2</b>	<b>Keynote 2 - Dr. Vivek Prasad, Vice President of Design Engineering Ecosystem Enablement, NATCAST</b>	<b>313</b>
10:00-10:30 am		Break	
10:30-12:30 pm	<b>Session 4A</b>		<b>232</b>
Session Chair: Biresh Joardar, Tolunay Seyfi	Virtual	Optimizing Fairness in Machine Learning: A Hyperparameter Tuning Approach (3677) Abdul Nadeem Mohammed	
	Virtual	An Adaptive and Unsupervised Graph-based Approach for Fake News Detection (4540) Manish Vikrama, Monitha Davuluri and Rashida Hasan	
	Virtual	PropEnc: A Property Encoder for Graph Neural Networks (4682) Anwar Said, Waseem Abbas and Xenofon Koutsoukos	
	Virtual	Multi-Class Respiratory Sound Classification Using Machine Learning (9667) Thirumala Maheswara Reddy Yenumula, Jesse P Marin and Ashok Kumar	
	Virtual	Gen-AI Ready Data Strategy (4400) Sowjanya Pandruju	

10:30-12:30 pm	<b>Session 4B</b>		<b>235</b>
Session Chair: Abhishek Moitra	In Person	A Dual-Read SOT-MRAM Bitcell Architecture for Robust In-Memory Computing (4330) Rouhan Noor, Md Abdullah-Al Kaiser and Akhilesh Jaiswal	
	Virtual	Smart Hat 2.0: An Energy-Aware Wearable Navigation System for Visually Impaired (4901) Kushal Sri Rangam, Punam Ram Pukale, Shounak Palnitkar Jitendra, Dongbin Lee and Jinzhu Gao	
	In Person	CADI: Carbon-Aware Distributed Inference (8794) Robert Viramontes and Azadeh Davoodi	
	Virtual	CATALYSE: Communication-aware Task Mapping for DNNs on Multicore Systems at Edge (8650) Ankit Ahirwar and Sumit K. Mandal	
	Virtual	LiM Pruner: Efficient Pruning for Large Language-in-Memory Models (7165) Sri Sai Rakesh Nakkilla, Aniruddha Datta, Ashish Reddy Bommana, Jeff Zhang, Farshad Firouzi and Krishnendu Chakrabarty	
10:30-12:30 pm	<b>Special Session 4</b>	<b>Low-Power Design</b>	<b>313</b>
Session Chair: Jianqing Liu	In Person	Privacy by Design via Novel Memory Technologies (5592) Jianqing Liu, Na Gong, Hritom Das and Mario Pinon	
12:30-1:30 pm		Lunch	
1:30-2:30 pm	<b>Keynote 3</b>	<b>Keynote 3: Mandy Pant, Senior Director and Lead Technologist, Intel Corporation; IEEE TCVLSI Chair</b>	<b>313</b>
2:30-3:30 pm	<b>Panel</b>	<b>Engagement &amp; Outreach Panel</b>	<b>313</b>
Session Chair: Peipei Zhou	In Person	Panelists: Mandy Pant, Azadeh Davoodi, Bhuvana Krishnaswamy	
3:30-3:45 pm		Networking & Tea/Coffee	
3:45-5:30 pm	<b>Session 5A</b>		<b>232</b>
Session Chair: Matthew Delorenzo, Jeremy Abbott	In-Person	O2-RAN: Orbital Open RAN for Non-Terrestrial Networks and Space-Based Edge Computing Farshad Firouzi, Nathaniel Bleier, Bahar Farahani, Fatemeh Afghah and Tolunay Seyfi	

Session Chair: Matthew Delorenzo, Jeremy Abbott	In Person	Watermarking LLMs — Challenges and Opportunities in Electronic Design Automation (3400) Matthew DeLorenzo, Phat Tieu, Chen Chen, Vasudev Gohil and Jeyavijayan Rajendran	
	In-Person	Efficient Self-Driving: A Study on the Behavioral Cloning based Autonomous Navigation (5782) Eric Nguyen, Jeremy Abbott, Ashton Johns and Lin Zhang	
	Virtual	The Role of Generative Artificial Intelligence in Testing and Automation of Open RAN Systems: GNG-OTA Framework (1093) Aly Sabri Abdalla and Vuk Marojevic	
	Virtual	Real-Time Multiple Obstacle Avoidance and Navigation in Unstructured Spaces with Applications to Indoor Delivery Robots (3193) Yuhui Wang, Unnikrishna Pillai, Junaid Farooq and Juntao Chen	
3:45-5:15 pm	<b>Session 5B</b>		<b>235</b>
Session Chair: Abhishek Moitra, Miao Sun	Virtual	Design of AI-Driven Modular Snake Robot with Active Skin Enhanced Mobility (6479) Victor Luo	
	Virtual	Bio-Inspired Drone Control: A Reinforcement Learning-Trained Spiking Neural Networks for Agile Navigation in Dynamic Environment (9061) Yin-Ching Lee, Sebastiano Mengozzi, Luca Zanatta, Andrea Bartolini, Andrea Acquaviva and Francesco Barchi	
	Virtual	Control of Cable-Driven Parallel Robots Using Uncalibrated Visual Servoing (9748) Jarrett-Scott Jenny and Matt Marshall	
	In-Person	Lightweight Inertial Guidance & Mapping Algorithm (661) Zerui Wang, Vincent X Z Kwok and Kenneth Y T Lim	
	Virtual	QCSNN: A Memory-Efficient Spiking Neural Network for On-Device ECG-Based Arrhythmia Detection (2237) Olamilekan Banjo and Behnaz Ghoraani	
3:45-5:15 pm	<b>Talk / Tutorial</b>		<b>313</b>
Session Chair: Farshad Firouzi, Tolunay Seyfi	In Person Oral Talk	The Rise of Data Lakehouse: How Apache Iceberg is Revolutionizing Big Data (790) Dipankar Saha	

	Virtual Tutorial	The Transformative Role of Emerging Artificial Intelligence on Ethical Paradigms Vishnu Pendyala	
<b>Aug 6, Wednesday</b>			
<b>Time</b>	<b>Session Name</b>	<b>Paper Information</b>	
9:00-10:00 am	<b>Keynote 4</b>	<b>Keynote 4 - Prof. Randall Berry - Meeting the Spectrum Needs of Next Generation Wireless Systems</b>	<b>313</b>
10:00-10:30 am		Break	
10:30-12:30 pm	<b>Session 6A</b>		<b>232</b>
Session Chair: Akhilesh Jaiswal	In Person	Exploiting DCI Leakage: A Stealthy 5G Uplink Jamming Attack Using Compromised User Equipment (9910) Rosolino Alaimo, Domenico Garlisi and Ilenia Tinnirello	
	In Person	CONCEAL: Covert NoC Exploitation in In-Memory Computing-based DNN Accelerators (2497) Sanjay Das, Shamik Kundu, Sumit K. Mandal and Kanad Basu	
	In Person	Memristor-Assisted Secure SRAM Architectures for Protection Against Data Imprinting Attacks (7879) Ankur Singh, Subhradip Chakraborty, Zihan Yin and Akhilesh Jaiswal	
	Virtual	Practical Adversarial Attacks on Industrial AI: Evaluating Camera Sticker Techniques with MVTec AD (8415) Satoshi Okada and Takuho Mitsunaga	
	Virtual	Transmission Analysis and Space-Efficient Structuring of Triangular TSVs for Dense Integration (3374) Prosen Kirtonia, Kasem Khalil and Magdy Bayoumi	
10:30-12:30 pm	<b>Session 6B</b>		<b>235</b>
Session Chair: Dharmendra Ahuja	Virtual	Opportunities and Applications of GenAI in Smart Cities: A User-Centric Survey (2366) Lakshit Arora, Dipen Pradhan, Ankit Shetgaonkar, Sanjay Surendranath Girija, Shashank Kapoor and Aman Raj	
	Virtual	Optimizing Decentralized Local Energy Trading: Enhancing Scalability and Storage Efficiency through DAG Pruning and Smart Contract Optimization (4563)*	

Session Chair: Dharmendra Ahuja	Virtual	Fostering interoperability in agricultural data spaces: A DIVINE use case (9335)* Marios Paraskevopoulos and Ioanna Roussaki	
	In Person	A Decentralized IoT Payment Service for Digital Currencies (565) Uwe A. Kuehn	
	In Person	Cyber-security threat modeling for small modular reactor stations (8246) Carmen Haseltine and Laura Albert	
10:30-12:30 pm	<b>Session 6C</b>		<b>313</b>
Session Chair: Tolunay Sefi	In Person	Assessing Feature Importance in Cardiovascular Variability for the Classification of Physiological Stress (5724) Marta Iovino, Marlis Ontivero-Ortega, Chiara Barà, Sebastiano Stramaglia, Michal Javorka, Riccardo Pernice and Luca Faes	
	Virtual	Multi-channel Time-series Transformer for Wearable Monitoring of Rigidity in Parkinson's Disease (1439) John Forde, Mustafa Shuqair, Behnaz Ghoraani and Joohee Jimenez-Shahed	
	In Person	Preliminary Automatic Analysis of Photoplethysmographic and Respiratory Signals for Sleep-Wake Pattern Identification in Young Infants at Risk of SIDS (2701) Sara Groppo, Massimo Violante and Silvia Noce	
	In Person	EM-aided Federated Learning for Quality Assessment of Embryo Development (3191) Jung-Hua Wang, Chang-Hong Wu, Ming-Jer Chen, Yu-Chiao Yi, Huai-Wen Chang and Rong-Yu Wu	
	In Person	Detecting Oral Cancer Using Tabular Deep Learning (3780) Zhiyun Xue, Zhaohui Liang, Sivaramakrishnan Rajaraman, Niccolo Marini and Sameer Antani	
12:30-1:30 pm		Lunch	
1:30 - 2:00 pm		<i>Awards and Closing</i>	<b>313</b>