Massachusetts Institute of Technology

CICS CENTER FOR INTEGRATED CIRCUITS AND SYSTEMS

CICS Spring Research Review (May 1, 2024)

Agenda

50 Vassar Street, Cambridge, MA. Building 34, 4th Floor, Grier Room (34-401)
Zoom: https://mit.zoom.us/j/98704020250

Time	Speaker	Topic
8:30 AM		*Breakfast*
9:00 AM	Prof. Ruonan Han	Welcoming Remarks
9:10 AM	Prof. Song Han	Research Overview
9:20 AM	Guangxuan Xiao	StreamingLLM: Efficient Streaming Language Models with Attention Sinks
9:45 AM	Prof. Vivienne Sze	Research Overview
9:55 AM	Fisher Xue	Tailors: Accelerating Sparse Tensor Algebra by Overlooking Buffer Capacity
10:20 AM		*Coffee Break*
10:35 AM	Prof. Jelena Notaros (Guest Speaker from MIT)	Silicon Photonics for LiDAR, Augmented Reality, Biophotonics, Quantum Engineering, and Beyond
11:05 AM	Prof. Negar Reiskarimian	Research Overview
11:15 AM	Shahab Mohin	A Blocker-Tolerant mm-Wave MIMO Receiver with Spatial Notch Filtering Using Non-Reciprocal Phase-Shifters
11:40 AM	Jamie Koerner (Co-Advised by Charlie Sodini, Vivienne Sze and Thomas Heldt)	Recording Eye Movements using Mobile Devices for Individualized Assessment of Neurocognitive State
12:05 PM		*Lunch*
1:10 PM	Prof. Anantha Chandrakasan	Research Overview
1:20 PM	Maitreyi Ashok	A Secure Digital In-Memory Compute Macro with Protections Against Side-Channel and Bus Probing Attacks
1:45 PM	Deniz Umut Yildirim	A $0.7cm^2$ 3.5GHz, -31dBm Sensitivity Batteryless 5G Energy Harvester Backscattering Chip for Asset Identification in IoT Enabled Warehouses
2:15 PM		*Coffee Break and Demo*
2:40 PM	Prof. David Perreault	Research Overview
2:50 PM	Adam Pressel & Sarah Coston	Modulated Inverter and Frequency Multiplier Techniques for Efficient High-Frequency Power Generation
3:20 PM	Prof. Harry Lee	Research Overview
3:30 PM	Mohamed Elsheikh	TIA-Less, Zero-Crossing Based ADC System for Analog Compute-in-Memory
3:55 PM	Prof. Ruonan Han	Research Overview
4:05 PM	Pradyot Yadav (Co-Advised by Tomas Palacios & Ruonan Han)	Gallium Nitride / Silicon CMOS 3D Integrated Circuits for Next-Gen W-G Band Wireless Systems
4:30 PM		*Adjourn*