**Program Overview**

**SUNDAY**

- **12:00 pm – 5:00 pm** Registration Corwin Lobby
- **8:30 am** Intro and Awards Corwin Lobby
- **8:50 am** PLENARY Silicon Carbide Power Devices: A 35 Year Journey from Conception to Commercialization (Baliga)
- **9:50 am** Coffee Break Lagoon Plaza
- **11:30 am** A Three-Terminal Edge-Triggered Mott Switch (Aziz)
- **12:00 pm** Lunch (Not provided by Conference)

**MONDAY**

- **8:00 am – 9:00 am** Registration Corwin Lobby
- **8:30 am** Session I. Plenary Corwin West
  - **9:00 am** Electronic Gain and Loss Measurements of Semipolar III-Nitride Laser Diodes (Liu)
  - **9:40 am** Hysteresis/Memory Window in an Asymmetric DG MOS Device: A Path to a Reconfigurable Logic-Memory Device (Tasneem)
  - **12:00 pm** Coffee Break Lagoon Plaza
- **1:30 pm** Session III-B. Steep-Slope and NC 2D Devices Corwin West
  - **2:00 pm** INVITED Steep-Slope Hysteresis-Free Negative-Capacitance 2D Transistors (Yee)
  - **2:40 pm** Sub-Termionic Steep Switching in Hole-Doped WSe2 Transistors (McCluskey)
  - **3:00 pm** INVITED High Performance, Sub-Thermionic MoS2 Transistors Using Tunable Schottky Contacts (Bhat)
- **3:40 pm** Session IV-A. Spin and Ferroelectric Devices Corwin West
  - **4:00 pm** Tunable Random Number Generation Using Single Superparamagnetic with Perpendicular Magnetic Anisotropy (Debashish)
  - **4:20 pm** Large Room Temperature Charge-to-Spin Conversion Efficiency in Topological Insulator/CrFeB Bilayers (Shao)
  - **4:40 pm** INVITED Spin-Based Majority Gates for Logic Applications (Radu)
  - **5:20 pm** Domain Formation in Ferroelectric Negative Capacitance Devices (Hoffmann)
  - **5:40 pm** Insights on the DC Characterization of Ferroelectric Field-Effect-Transistors (Jerry)
- **6:00 pm – 7:00 pm** Poster Session Lagoon Plaza

**TUESDAY**

- **7:30 am – 9:00 am** Registration Corwin Lobby
- **8:00 am** Session VI. Plenary Corwin West
  - **9:00 am** PLENARY Frontiers of Information Technology (Riel)
- **10:00 am** Coffee Break Lagoon Plaza
- **11:30 am** Session VII-B. Neuromorphic and Quantum Devices Corwin East
  - **1:30 pm** INVITED Approaches for Dynamic IR Nano-Optics Using 2D Materials for 3D Substrates: Materials and Device Perspectives (Nesnas)
  - **2:50 pm** Three-Dimensional Integration of Multi-Channel MoS2 Devices for High Drive Current FETs (Zhou)
  - **3:00 pm** Effects of Single Vacancy Defects on 1/f Noise in Graphene/h-BN FETs (Khalil)
- **12:00 pm** Lunch (Not provided by Conference)
- **1:30 pm** Session VIII-A. 2D Electronic Devices II Corwin East
  - **2:00 pm** INVITED Recent Advances in Ga2O3 MOSFET Technologies (Higashiwaki)
  - **3:00 pm** Design and Demonstration of (Al,Ga)2O3 MOSFET Devices: Effect of the Growth Substrate (Alharbi)
- **3:40 pm** Session VIII-B. Optical and THz Devices Corwin East
  - **4:00 pm** INVITED Liquid-Phase Exfoliated Two-Dimensional Nanosheets: Processing and Applications (Nicolosi)
  - **5:00 pm** INVITED Paper-Electronics (Fortunato)

**WEDNESDAY**

- **7:30 am – 12:00 pm** Registration Corwin Lobby
- **8:00 am** Joint EMDRC plenary Lotte Lehmann
  - **9:20 am** Coffee Break Lagoon Plaza
- **11:10 am** Session X. Thin-Film Electronics Corwin East
  - **9:50 am** INVITED Recent Progress in Spintronics and Devices (Cegielski)
  - **10:30 am** INVITED Towards Scalable Silicon Quantum Computing (Vinet)
  - **12:00 pm** Lunch (Not provided by Conference)

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**All DRC attendees may attend Wednesday EMD technical sessions.**
Experimental Investigation of N-Channel Oxygen-Inserted Probing Self-Heating in RRAM Devices by Sub-100 nm Multi-Level 2-Bit/Cell Operation Utilizing Hf-Based Fast Recovery Performance of Surface Passivated InN Nanowire and Graphene Flexible Thin-Film PZT Ultrasonic Transducers (Liu)

Theory and Design of Electron Blocking Layers for III-N All CVD Boron Nitride Encapsulated Graphene FETs

A Vacuum Multi-Finger Transistor in CMOS Technology


Monday, 6:00 pm – 9:00 pm | Lagoon Plaza

SPECIAL THANKS

CONFERENCE DISSERTATION RECEPTION & RUMP SESSIONS

- Teledyne Technologies Inc.

CONFERENCE SUPPORT

- Lake Shore Cryotronics, Inc.
- Qorvo US, Inc.
- National Science Foundation
- Office of Naval Research

CO-SPONSOR

- Materials Research Society

TECHNICAL CO-SPONSOR

- IEEE Electronic Devices Society

EXHIBITORS

SUNDAY 6:00 pm – 8:00 pm

TUESDAY 9:00 am – 12:00 pm 1:30 pm – 4:00 pm

MONDAY 9:00 am – 12:00 pm 1:30 pm – 4:00 pm 6:00 pm – 9:00 pm

- Keithley, A Tektronix Company
- Novel Crystal Technology, Inc.