



**37th ANNUAL MICROELECTRONIC
ENGINEERING CONFERENCE at RIT**

April 15-16, 2019



AGENDA

Tuesday April 16, 2019 – Center for Integrated Manufacturing Studies –CIMS

8:00 am **Registration and Continental Breakfast, Upper Lobby – SLA Hall – 2210/2240**

8:30 am **Opening Remarks**, Doreen Edwards, *Dean of Kate Gleason College of Engineering, RIT*

Invited Talks Session Chair: Robert Pearson

8:40 am **Single Electron Transistors for Molecular Computer Readout**, Matthew Filmer, *Electrical Engineering, University of Notre Dame*

9:10 am **Demonstration of Record-High mm-Wave Power Performance using N-Polar Gallium Nitride HEMTs**, Brian Romanczyk, *Electrical and Computer Engineering Department, University of California Santa Barbara*

9:40 am **Coffee Break & Poster Session**

10:10 am **2D materials for a new generation of multi-functional devices**, Steven J. Koester, *Professor, Department of Electrical and Computer Engineering, University of Minnesota*

10:40 am **“Tiger Stripes” – A model for resolving complex process interactions in the pursuit of defect elimination**, Chelsea Mackos, *Director of Engineering, Solar Cells & CIC, SolAero Technologies*

11:10 am **Super activation obtained by melt UV laser annealing of highly surface-segregated dopants in high Ge content SiGe**, Leonard M. Rubin, *Chief Device Scientist, Axcelis Technologies*

Noon Luncheon, Louise Slaughter Hall 2220 - Dinosaur Barbeque

Invited Talks Session Chair: Santosh Kurinec

- 1:00 pm** **The RIT impact**, Ken Way, *Head of WW Business Development and Sales, Xilinx*
- 1:30 pm** **Integration of hafnium oxide based ReRAM with CMOS for neuromorphic computing applications**, Nathaniel C. Cady, *Professor, Colleges of Nanoscale Science & Engineering, SUNY Polytechnic Institute*

Talks from RIT Microelectronic Engineering Students

Session Chair: Michael Jackson

- 2:05 pm** **Fabrication of AlGaIn/GaN High Electron Mobility Transistors**, Vijay Gopal Thirupakuzi Vangipuram
- 2:20 pm** **Fabrication of Photonic LPCVD Silicon Nitride Waveguides**, Robert Dalheim
- 2:35 pm** **Fabrication of Sub-300nm Fins at RIT by SADP**, Kelly Weiskittel
- 2:50 pm** **LivAbility Lab: Force and Position Monitoring System**, Nicholas Petreikes

3:05 pm Afternoon Break & Poster Session

Session Chair: Sean Rommel

- 3:30 pm** **FeFET Fabrication and Characterization at RIT**, Jordan Merkel
- 3:45 pm** **Transfer Process with 2-Dimensional Transitional Metal Dichalcogenides Materials**, William Huang
- 4:00 pm** **Etching process characterization of Nitride layer and Poly silicon layer using TRION III Etcher**, Sudmun Habib
- 4:15 pm** **Capping Layers for Increased Thermal Stability of IGZO Thin-film Transistor**, Jason Konowitch
- 4:30 pm** **Biristor Array Investigation**, Jeremiah Leit
- 4:45 pm** **Closing Remarks--38th AMEC on April 13 and 14, 2020**