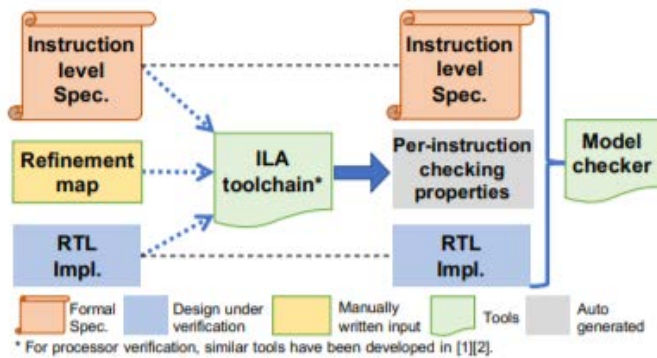
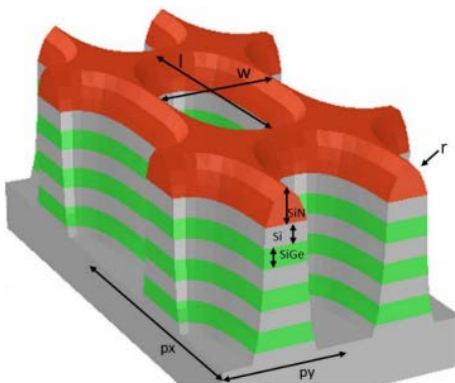


Efficient power to the people - CSE researchers making faster energy-saving circuits [Read more here](#) and [here](#) »



ADA Researchers win DATE 2021 Best Paper Award for ILA Research on General Hardware Modules

Princeton ADA researchers [Yue Xing](#), Huaxi, Lu, Prof. Sharad Malik, and collaborator Prof. Aarti Gupta, have won the Best Paper Award for the Design and Tools “D Track” at the Design, Automation, and Test in Europe (DATE) 2021 conference earlier this month. This research generalizes the ILA model to move beyond processors and accelerators. Members can learn more about the award-winning students, paper, and research [here](#) ».



SRC Researchers Awarded Diana Nyssonen Memorial Best Paper Award at SPIE Advanced Lithography’s Conference

Professor Alain Diebold and his student [Madhulika Korde](#) (SUNY Polytechnic Institute) have been awarded for their pioneering work in X-ray metrology. Their [paper](#), a collaborative effort between Tokyo Electron Ltd., National Institute of Standards and Technology (NIST), Argonne National Laboratory (ANL) and Nanometrics Inc., was supported by Nanomanufacturing Materials and Processes (NMP) research task [2794.001](#). Congratulations to Madhulika and Alain!



Intel Recognizes Academics with Outstanding Researcher Award 2020

Intel recognized 18 academics with the Intel Outstanding Researcher Award 2020, from projects such as optimizing spin-to-charge current conversion, to accelerating datacenter FPGAs for deep learning, to evaluating roadway readiness for autonomous vehicles. Eleven of these are current SRC-supported faculty researchers: Profs. Moinuddin Qureshi (GA Tech), Jae-sun Seo (Arizona State), Shreyas Sen (Purdue), Visvesh Sathe (Univ. Washington), Huili Xing (Cornell), Alyosha Molnar (Cornell), Debdeep Jena (Cornell), Yu Cao (Arizona State), Michael Flynn (Univ. Michigan), Jonathan Ragan-Kelley (UC/Berkeley), and Tomas Palacios (MIT) . [Read more](#) »

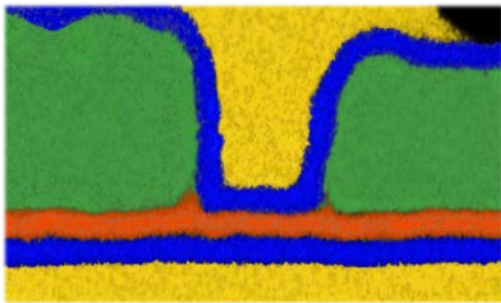
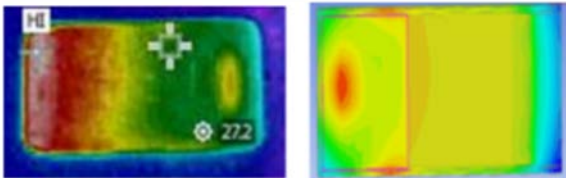


Image: University of Notre Dame

New Type of DRAM could Accelerate AI

One of the biggest problems in computing today is the “memory wall”—the difference between processing time and the time it takes to shuttle data over to the processor from separate DRAM memory chips. A new, capacitor-less DRAM from the ASCENT Center promises huge energy savings for next-gen AI workloads. Congratulations to [Jorge Tomás Gómez Mir](#), Arijit Raychowdhury, and the rest of Suman Datta's team for their December IEDM presentation. [Read more](#) » Members can learn more [here](#) ».

SRC Researchers Receive Best Paper Awards at VLSI Design 2021



Congratulations to SRC researchers at IIT Delhi for receiving the best student paper award at the 34th IEEE International Conference on VLSI Design (VLSID 2021) held in February 2021. The paper titled “A Fast Compact Thermal Model for Smart Phones” is authored by Anjali Agrawal, Anand Singh, Ankit Gola, [Hameedah Sultan](#), and advised by Prof. Smruti Sarangi. The project is funded through SRC's India Research Program. [Read more](#) »



SRC Researcher Elected 2021 Fellow - American Institute for Medical and Biological Engineering (AIMBE)

Congratulations to Professor Kevin Eliceiri, a CRISP Center researcher, on his election to the American Institute for Medical and Biological Engineering (AIMBE) College of Fellows for pioneering research leading to the production and therapeutic application of human retinal cells and tissues from pluripotent stem cells. [Read more](#) »

Research Matters Highlights SRC Publications

SRC funds research around the globe for industry members. Research Matters recently highlighted [a publication](#) featuring work by Professor Udayan Ganguly (IIT Bombay), graduate student [Vivek Saraswat](#) (IIT Bombay) and collaborators on a novel nanodevice that can both store data and carry out logical operations.



Image: Michael Dzedzic on Unsplash

Putting Graphene in a Spin

An international research team led by Prof. Jonathan Bird at the University at Buffalo is reporting an advancement that could help overcome graphene's limited utilization in the field of spintronics. In an nCORE-sponsored study published in the journal Physical Review Letters, the researcher team describes how they paired a magnet with graphene to induce what they describe as "artificial magnetic texture" in the nonmagnetic wonder material. [Read more](#) »

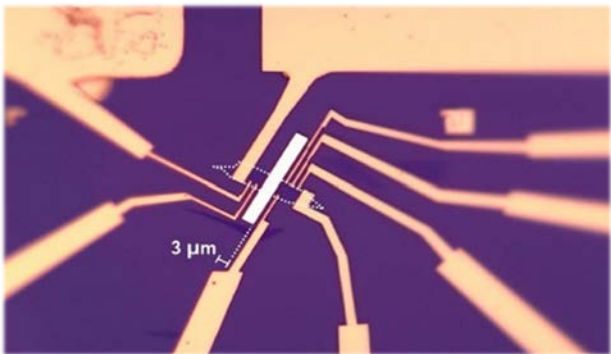
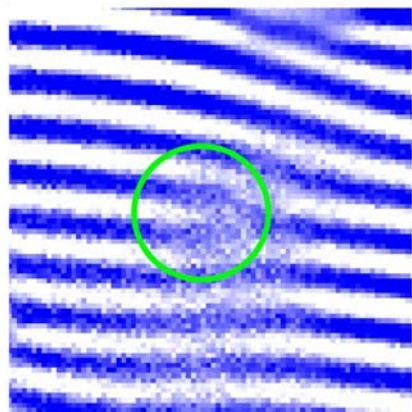


Image: University at Buffalo



UC San Diego Physicists Uncover Phenomena Tied to New State of Matter

For decades, excitons have been theorized as featuring superfluidity—the ability to flow without friction—but only now has such an idea been proven in a series of investigations led by UC San Diego's Prof. Leonid Butov. The research, funded in part by SRC's Nanoelectronics Research Initiative (NRI) through 2019, showed that interference dislocations formed by indirect exciton (IX) matter waves are ballistically propagating over macroscopic distances. Learn more about this exciting, fundamental research [here](#) and [here](#) ».

Top 5 SRC Publications Viewed Across all Programs – Are you Missing out?

The following papers received the most views on the SRC website over the last six weeks. Members of the associated programs have early access to the pre-publications.

Narrow Interconnects: The Most Conductive Metals	SRC Pub ID P102013
Examination of the Interplay Between Polarization Switching and Charge Trapping in Ferroelectric FET	SRC Pub ID P102016
A 71-to-86GHz Packaged 16-Element by 16-Beam Multi- User Beamforming Integrated Receiver in 28nm CMOS	SRC Pub ID P102553
Metal Nitride Electrode Stress and Chemistry Effects on Phase and Polarization Response in Ferroelectric Hf _{0.5} Zr _{0.5} O ₂ Thin Films	SRC Pub ID P102463
Thermal and Electrical Characterization of Sb ₂ Te ₃ /GeTe Superlattice Film	SRC Pub ID P102583

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