



Learn more about our 2020 award winning students, liaisons and faculty [here](#) »



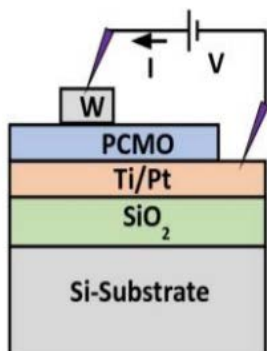
Before Dr. Su was an award-winning CEO, she was an SRC sponsored research student

We would like to join SIA in congratulating AMD CEO, Dr. Lisa Su, as the recipient of the [2020 Robert N. Noyce Award](#), which recognizes her impressive impact to the semiconductor industry. Dr. Su was also an SRC-sponsored student participating in *SRC task #309*, an MIT Center of Excellence in Microsystem Technologies, which was highlighted in SRC's 1993 Annual Report. While our research topics have evolved to meet the times and our researchers have changed, SRC students are still amazing and are out to change the world. Get to know our outstanding students [here](#) »

SRC Microstructure Sciences research highlights for 1993 include:

- Massachusetts Institute of Technology – Dimitri A. Antoniadis and graduate student Lisa Su have delineated the fully depleted (FD) design space for 0.1 micron silicon on insulator (SOI). Drain Induced Barrier Lowering (DIBL) is more significant in SOI than in bulk devices and film thickness must be thinner than junction depth in bulk.

IIT-Bombay team demonstrates PCMO-based 3T-RRAM for Energy-Efficient In-Memory Computation



SRC India Research Program Professor Udayan Ganguly of IIT-Bombay talks about the [reasoning behind their push into in-memory computing](#) architectures and memristors in the context of his recent PCMO RRAM research published in [IEEE Electron Devices Letters](#). In-memory computing embodies the idea that memory-based logic is more efficient for computing in the “search era.” Through that approach, a large number of simple computations occur in the memory bank and such sifting, within the memory, produces startling efficiency gains. This program receives funding from SRC and engagement from Intel, IBM, and TI. Learn more [here](#) »



SRC student wins Best Poster at IThERM 2020

Congratulations to Albraa Alsaati, Purdue MTEC graduate student, for Best Poster at IThERM 2020! Albraa's work focuses on Confined Immersion Cooling in Microscale Gaps. More details of his work can be found in his [IThERM paper](#). Watch his poster presentation [here](#) »

Annual TxACE Symposium to be held virtually October 19th



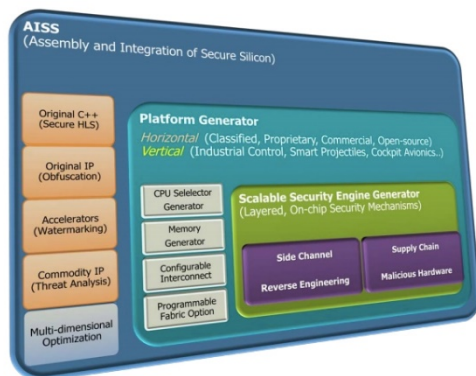
On Oct. 19th the Texas Analog Center of Excellence (TxACE) will hold its annual symposium virtually. The event is open to the SRC community. This year's keynote presentation from Dr. Arjang Hassibi, founder and CEO of InSilixa, will highlight COVID-19 testing from an integrated circuit designer's perspective. In addition, there will be a panel session on IC design in a machine learning era, and a poster session featuring TxACE research. Learn more [here](#) »



SRC Hardware Security researchers receive Best Paper Award at 2020 ASEE Conference

A group of Penn State researchers, led by Prof. Swaroop Ghosh, has been awarded the Electrical and Computer Engineering Division Best Paper Award at the 2020 American Society for Engineering Education (ASEE) conference for “*Hands-on cyber security curriculum using a modular training kit.*” Their paper details the results of the researchers' work on creating a CyberSecurity Training (CST) kit to advance cybersecurity education in K-12 and higher education, both for students and instructors. Coursework on hardware security using Do-It-Yourself (DIY) training modules from the kit has been piloted to introduce cybersecurity issues and prevention to the graduate students. [Read more](#) »

DARPA's recent deal with Arm reflects a history of microelectronics innovation



In an effort to promote American semiconductor advancement, DARPA spearheaded a \$1.5 billion investment, called the [Electronics Resurgence Initiative](#), with the program taking place over five years. The initiative unites contributors from the government, academia, industry, and defense realms—all of whom aim to broaden the U.S.' strategic tech advantage over other nations. The ERI also holds an annual summit, focusing on networking and education. The [ERI Summit](#) grants contributors a forum for discussion and ideation. At this year's virtual summit, DARPA announced an agreement with Arm that constitutes a continued focus on processing and computing advancements. The agency has been given an IP license, allowing the collective to harness the power of Arm's workforce and design resources. [Read more](#) »



SRC PI receives AVS 2020 Peter Mark Memorial Award

Professor Rehan Kapadia, University of Southern California, received the American Vacuum Society's Peter Mark Memorial Award for "*pioneering work in hot-electron emission and electrochemical devices*". This award honors a special type of scientist – one under 35 years of age, who has already made significant scientific contributions in his/her field through outstanding theoretical or experimental work. [Read more](#) »



Professor Adve fights to offset discrimination and harassment in her research community

JUMP Professor Sarita Adve of the Applications Driving Architectures (ADA) Center, continues to fight against discrimination and harassment in the architecture research community. In 2019, she worked with her colleagues to create [SIGARCH CARES](#), which defines itself as a "resource comprising of well-known and respected people in the architecture community who are approachable and willing to listen to and help people who experience or witness discrimination and harassment ...". CARES has gone a long way already to shine a light on bias and harassment. [Read more](#) »

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