

FALL IN PHOTOS



New Scholar Orientation - 8/20/19: 3rd/4th year scholars shed light on how to succeed in ORS to 1st/2nd year scholars



ECE Rush - 08/27/19: Volkan Gurses, Ashton Hattori, Rafael Figueroa, Alison Kennedy, Nia Rich, and Jongheon Lee



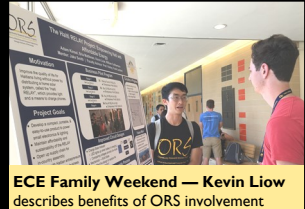
Lab Expo - 8/29/19: Amoree Hodges displays images of Jupiter's atmosphere



Publications & Conferences Discussion — 10/01/19: Prof. Durgin advises 3rd/4th year scholars about the benefits of these activities



Research Roundtable: Kevin Liow, Andrew Dulaney, Carah Camron and Amadou Diallo present research to peers



ECE Family Weekend — Kevin Liow describes benefits of ORS involvement



Lab Expo: 8/29/19: Aline Eid displays printed antennas made in her lab



Intel Resume Review and Networking - 09/10/19: Students network with Intel Representative Kevin Foster



TTM Info Session - 9/18/19: ORS Scholar and TTM intern, Rafael Figueroa, with Alex Budway, TTM HR Mgr



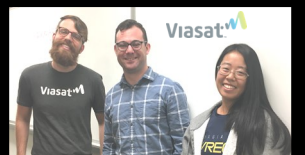
Sandia National Labs Info Session - 9/19/19: Charles Reinke and Deepu Jose meet informally with students following an SNL info session



Dr. Ying Zhang's students meet in the ORS breakout room to have a team meeting



9/10/19: William Schafer has his resume reviewed by Intel Recruiter Leon Wu



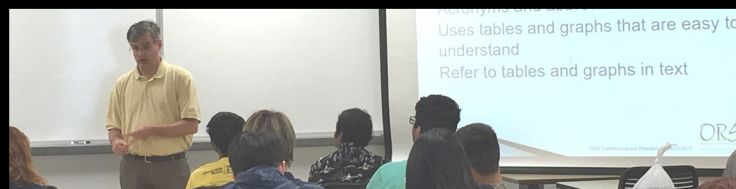
Viasat Info Session - Mentor Josh Roper and James Nichols, both working with VIASAT, with Scholar Maria Saito



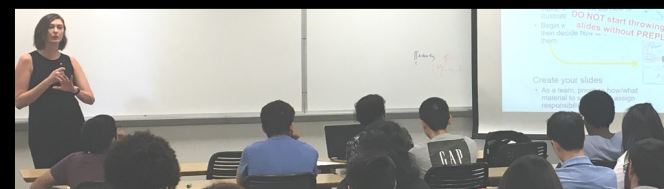
Justin Jiang from Boeing (ORS alumnus) meets with current scholars Andrew Dulaney, Carah Camron, and Kevin Liow



TI Info Session - 9/17/19: Nelson Magdaleno, an ORS alumnus working with Texas Instruments, answers student questions about career opportunities and the company culture at TI



Research Summary Workshop - 9/24/19: Prof. Durgin prepares scholars for writing an effective research proposal



Research Roundtable Workshop - 10/01/19: Anna Holcomb instructs 1st and 2nd year scholars on preparing their research presentations

A community of dedicated students...

SCHOLAR AND MENTOR ACHIEVEMENTS

SCHOLARS

Erik Centeno presented his work on the project titled "Next Generation Transparent RF Rectenna Design for Space Solar Power Collection Sites" at the IEEE Wireless in Space and Extreme Environments Conference at Ottawa University, Ottawa, Canada in September. Additionally, Emily Backer (ORS alumnus, VIASAT), Erik, and Dr. Greg Durgin delivered a workshop on Microwave Power Transfer.



Rafael Figueroa and **Evan Shi** published a conference paper and presented at Wireless Power Week in London, England, June 17-21.

Miguel Garcia received the Georgia Tech Provost Scholar Air Force ROTC Four-Year Scholarship and was designated an Air Force Field Training Distinguished Graduate.

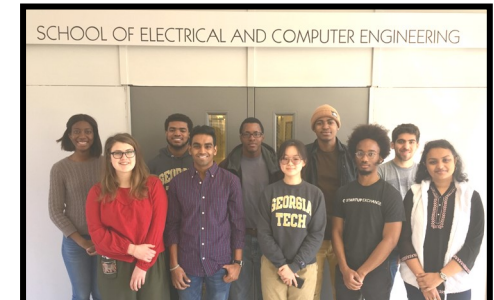
Kenneth Holder is a scholarship recipient in the Transfer Initiative for Engineering Scholars Program and he attended the NSBE Fall Regional Conference in Tampa, FL.

Mohamad-Baasim Rehan was awarded the IEEE Atlanta Section Scholarship through the Georgia Engineering Foundation on November 7.

Katie Weatherwax attended the WE19 National Conference for women in engineering in Anaheim, CA, November 7-9.

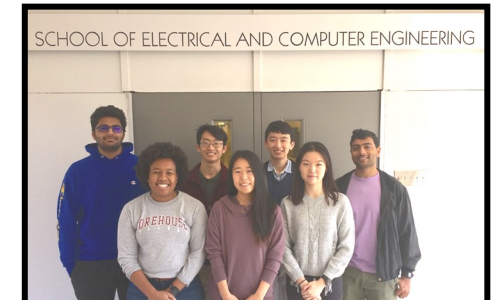
SRC JUMP

There were twelve scholars selected to participate in the Semiconductor Research Corporation Joint Undergraduate Microelectronics Program. They are: (L-R) **Jessica Graham, Laura Heller, Chandler Mason, Vinay Balamourougan, Malik Burton, Yi Li, Kenneth Holder, Solomon Martin, Juan Elizondo-Villasis, Adrija Bhattacharya,** and (not pictured) **Ashton Hattori and William Schaffer.**



SRC URP

There were ten scholars selected to participate in the Semiconductor Research Corporation ORS Undergraduate Research Program. They are: (L-R) **Sai Kilaru, Nia Rich, Kevin Liow, Maria Saito, Daniel Yang, Zhiyu Xu, Ankit Kuchhang,** and not pictured, **Shashwati Da Cunha, Tyler French, and Shukan Shah.**



TECHCON Conference 2019 September 8-10, See story page one.

MENTORS

Alex Chang presented his paper titled "Every Hop is an Opportunity: Quickly Classifying and Adapting to Terrain During Targeted Hopping" at the International Conference on Robotics and Automation in Montreal, QC, Canada, May. He also published a manuscript titled "Shape-centric Modeling for Control of Traveling Wave Rectilinear Locomotion on Snake-like Robots" in Robotics and Autonomous Systems, vol. 124.

Amoree Hodges attended the European Planetary Science Congress/Division of Planetary Science in Geneva, Switzerland Sept. 16-20. Additionally, she presented "Observing Jupiter's Aurorae Using the Juno Microwave Radiometer" at the American Geophysical Union Fall Meeting in San Francisco, CA, December 9-13. She also presented her poster titled "Measurements of Jupiter's Aurorae Using the Juno Wave Radiometer". Amoree is also a recipient of Georgia Tech's Presidential Fellowship.

Chuyao Feng presented his work titled "Identification of Voice Quality Variation Using I-vectors" at the IEEE Workshop on Applications of Signal Processing to Audio and Acoustics, New Paltz, NY.

Matt O'Shaughnessy presented his work titled "Robust Incorporation of Signal Predictions Into the Sparse Bayesian Learning Framework," at the Workshop on Signal Processing with Adaptive Sparse Structured Representations in Toulouse, France, July.

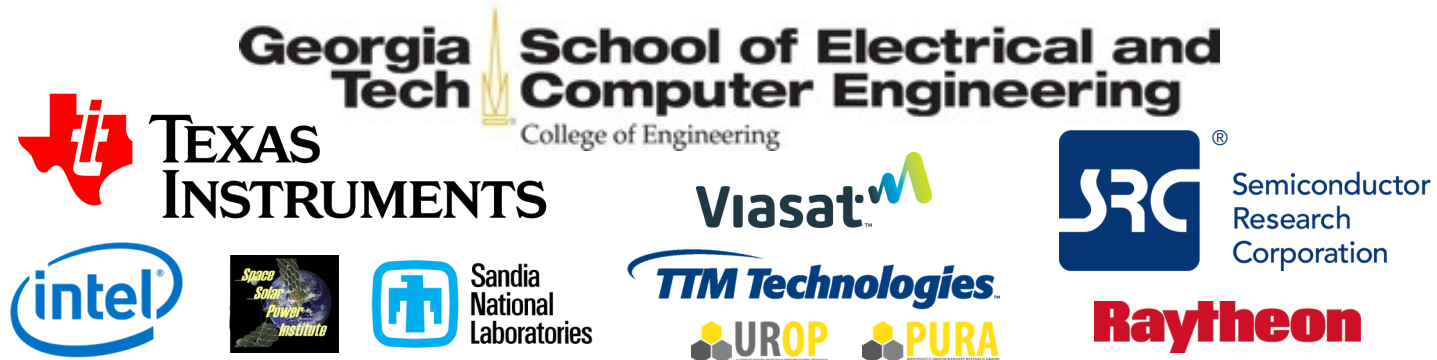
Aline Eid received 1st Place in the Student Design Competition at the International Microwave Symposium in Boston, MA. She also received an Honorable Mention in the student paper competition, 2nd Place and Audience Choice in the Three-minute Thesis Competition.

Shang-Jen Su presented his work at the Microwave Conference on 5G Hardware and System Technologies.

Ayca Ermis presented her paper titled "Recursive Subspace Identification for Online Thermal Management of Implantable Devices" at the 57th Allerton Conference on Communication, Control and Computing in Monticello, IL Sept. 24-29.

...who work together to broaden the academic experience

This program would not be possible without our forward-thinking sponsors:



2019-2020 Research Teams

Dr. David Anderson Chuyao Feng (Ph.D. Mentor) Akhil Gazula Vincent Wang David Yu	Dr. John Barry Derrick Chu (Ph.D. Mentor) Rajan Ajani, Harley Ovell Kombundit Chitranuwatkul	Dr. GK Chang Shang-Jen Su (Ph.D. Mentor) Shelby Crisp Abigail Drun Yue Teng Robert Walker	Dr. Mark Davenport Dr. Chris Rozell Matt O'Shaunessey (Ph.D. Mentor) Mark Faingold Miguel Garcia Jason Palmer	Dr. Greg Durgin Qi Cheng (Ph.D. Mentor) Erik Centeno Alaina Do Rafael Figueroa Evan Shi, Lycia Tran
Dr. Jennifer Hasler Aishwarya Natarayan (Ph.D. Mentor) Adrija Bhattacharya Justin Kelley Qian Zhu	Dr. Bernard Kippelen Gunhee Kim (Ph.D. Mentor) Luca DeCicco Leah Jackson Katie Weatherwax	Dr. Deepak Divan Frank Lambert Kartavya Agarwal (Ph.D. Mentor) Carah Camron, Kevin Liow Amadou Diallo Andrew Dulaney	Dr. Azah Naeemi Mufatau Akuruyejo (Ph.D. Mentor) Kenneth Holder Jongheon Park Baasim Rehan Michael Schmidt	Dr. Andrew Peterson Josh Roper (Ph.D. Mentor) Alessandria Holley Nathan Jenkins Sai Kilaru, Maria Saito Chandler Mason
Dr. Justin Romberg Cole DeLude (Ph.D. Mentor) Juan Elizondo-Villasis Siddhanta Panda Vijay Prasad	Dr. Shyh-Chiang Shen Dr. Minkyu Cho (Mentor) Shashwati Da Cunha Hubert Elly Yi Li William Schaffer	Dr. Paul Steffes Amoree Hodges (Ph.D. Mentor) Allison Kennedy Caleb Page Gracen Wallace Corey Wang	Dr. Madhavan Swaminathan Ahadi Dolatsara (Ph.D. Mentor) Vinay Balamourougan Jessica Graham Eunsun Mo	Dr. Manos Tentzeris Aline Eid (Ph.D. Mentor) Ashton Hattori De-Pie Ho Aksaya Manickandan Nia Rich Daniel Yang
Dr. Patricio Vela Alex Chang (Ph.D. Mentor) Alexander Faché Sterling James Kimberly Lie	Dr. Patricio Vela Shiyu Feng (Ph.D. Mentor) Brennon Farmer Dylan Nektalov Tara Poteat Rajan Vivek	Dr. Shimeng Yu Feng (Ph.D. Mentor) Malik Burton Laura Heller Tarun Maddali Mory Fode Traore	Dr. Ying Zhang Ayca Ermis (Ph.D. Mentor) Mark Goldstein Solomon Martin Nikhil Patel Alex Xu	

A community of dedicated students who work together to broaden the academic experience.

Opportunity Research Scholars' Program
 School of Electrical and Computer Engineering
 777 Atlantic Drive, NW, E470 Van Leer Bldg.
 Georgia Institute of Technology
 Atlanta, GA 30332-0250
 Tel: 404.894.4707



Julie Ridings
Assistant Director



La'Darius Thomas
Graduate Assistant



Jill Auerbach
Founder & Director



Dr. Greg Durgin
Professor & Faculty Director

ors.ece.gatech.edu



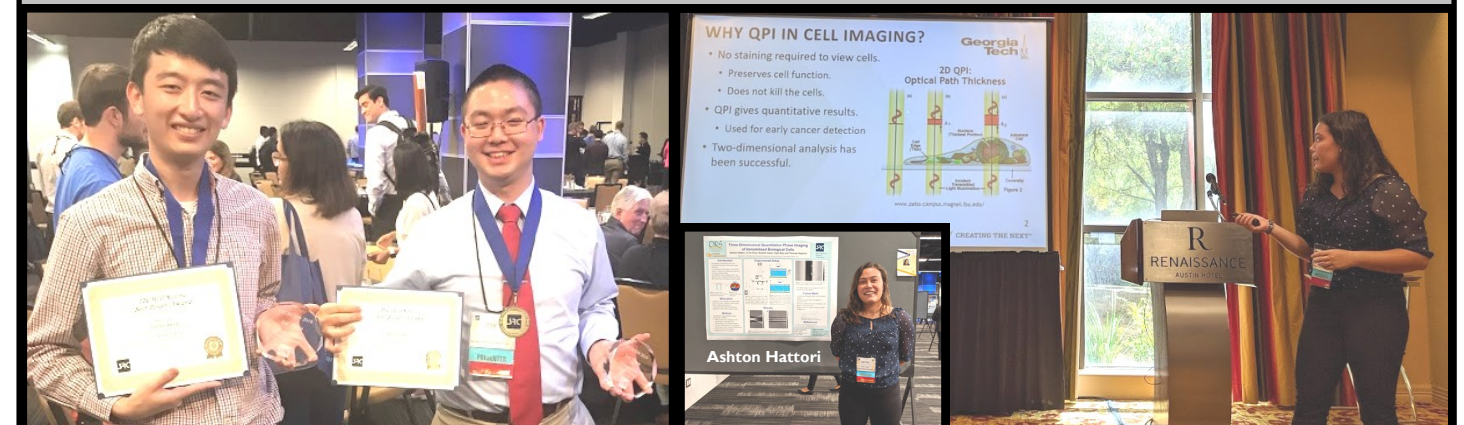
ORS Scholars Present and Win at 2019 TECHCON

By: Jackie Nemeth

Congratulations to **Daniel Yang** on receiving the best student research presentation award at SRC TECHCON 2019, held September 8-10 in Austin, Texas. A junior computer engineering major, Daniel is a third year ORS scholar advised by Ph.D. student Aline Eid and Professor Manos Tentzeris. Daniel's award-winning poster is entitled "Fully Inkjet-Printed Schottky Diodes." This research is focused on fabricating Schottky diodes on flexible substrates using inkjet printing techniques and aims to provide a greater understanding of the feasibility and value of printing semiconductor devices.

Including Yang, seven ORS scholars were selected to present at SRC TECHCON including **Ashton Hattori, Laura Heller, Sterling James, Jesse Jiang, Ruth Pavoov, and Will Scott**. In addition to Daniel's first place prize, **Jesse Jiang** won third place in the best student research presentation competition for his poster entitled "24 GHz Semi-Passive RFID Tags." He is a senior electrical engineering major and was advised by ECE Ph.D. student Mohammad Alhassoun and ECE Professor Greg Durgin for this work. **Ashton Hattori** was also asked to give an extended presentation of her poster entitled "Three-dimensional Quantitative Phase Imaging of a Biological Cell." Ashton is a senior majoring in electrical engineering and was advised by Dr. Tom Gaylord and Ph.D. student Yijun Bao for this work.

The conference draws top researchers, scientists, and a large field of students from across the United States to present cutting-edge research in the field of semiconductor electronics. This is an excellent showing by our ORS undergraduate research scholars at this prestigious conference. Keep up the tremendous work, Daniel, Jesse, and Ashton!



For a digital version of this Newsletter and more go to our website:

ors.ece.gatech.edu