Welcome to Fall 2021

Dear Students, Alumni, Faculty, Staff, and Friends:

Back in March of 2020, I don’t think any of us dreamed that COVID-19 was going to drag into a second year. As such, the pandemic has dictated how we deliver education to our students. After multiple semesters of online learning, we enter the fall semester with a combination of online, in-person, and hybrid courses. While the faculty did an outstanding job of teaching online and continue to do so, I, for one, must say that I’m excited to be back on campus, seeing students and colleagues in person.

Along with some of our courses, we see a return to campus for this semester’s student events. The Electrical Engineering Comprehensive Exam, although being phased out, will take place on campus this semester on November 12th. We are excited to have our student chapter of IEEE
back on campus in room E376. Follow IEEE on Facebook and Instagram for information on club events. Oral presentations for EE 198A and EE 198B are currently scheduled on campus on December 3rd. And the always-popular Student Project Symposium will take place in the Student Union on December 7th, 2021, with more than 40 presentations from our undergraduate and graduate students. Mark your calendars!

In addition to our regular events, we share some exciting news about our program. San Jose State University is currently developing a doctorate program in Engineering in conjunction with UC Merced. In addition, the Department is participating in the Spartan Accelerated Graduate Education (SAGE) program. The SAGE program is a BSEE/MSEE fast-track program where nine units can be used towards both degrees. The program already has University approval and currently awaits approval by the CSU system. We were even able to collaborate with Advantest Corporation to develop a new EE course in chip testing, using their company’s facility and laboratory equipment, despite numerous COVID-19 pandemic restrictions.

The pandemic had little effect on our faculty’s ability to find grant money. We received more than $2M in grants for research, equipment acquisition, and curriculum development this year. You can find more details about these awards in this newsletter. Lastly, 2021 marks the 75th anniversary of the School of Engineering. Please check out the 75-year timeline on the College of Engineering’s website if you get a chance.

Welcome back to campus, everyone!

Thuy T. Le, Ph.D.
Professor & Department Chair
Electrical Engineering Department
Welcome, Dr. Shrikant Jadhav!

For the fall 2021 semester, we welcome Shrikant Jadhav to our faculty. Dr. Jadhav is joining the Electrical Engineering Department as an Assistant Professor. He received his Ph.D. from North Carolina A&T State University, and his previous teaching experience was at Fort Lewis College in Durango, Colorado.

Dr. Jadhav is teaching EE 178, Digital Design with FPGAs, and EE 277A, Embedded SoC Design, this Fall 2021 semester. His research includes developing a methodology for accelerating computationally intensive applications like image processing, bioinformatics, machine learning, etc. During his Ph.D. and Postdoc period, he enjoyed mentoring several high-school, undergraduate, and graduate students.

Welcome, Dr. Fei Gu!

The Department would also like to welcome a new lecturer. Fei Gu is joining our part-time faculty for Fall 2021. Dr. Gu earned his Ph.D. in Electrical Engineering from UC Irvine. He researched emerging microgrid technologies and their role in the future power grid and taught UCI’s Power Systems Laboratory course. Dr. Gu also works full-time as a senior associate at Exponent, a leading scientific consulting firm. He is teaching EE 134, Power Systems.
Hiu-Yung Wong Wins Multiple Research Grants and Awards

Congratulations to Electrical Engineering’s Hiu-Yung Wong! Hiu-Yung is a recipient of the $500K National Science Foundation (NSF) CAREER award, the most prestigious award in long-term support of early-career faculty who can serve as academic role models in research and education and lead advances in their department’s mission.

Hiu-Yung is also a co-PI of 2 other NSF grants: A $500K NSF research grant in “Cyber-manufacturing of Wide-Bandgap Semiconductor Devices Enabled by Simulation Augmented Machine Learning” and a $739K NSF grant in “A Program for Training a Quantum Workforce.” Dr. Wong is also the 2021 winner of the prestigious Newnan Brothers Award for Faculty Excellence. Brothers Don and Dean Newnan were both SJSU alumni and Engineering faculty members. Their family’s $1M gift in 2008 allowed the University to establish the Newnan Brothers Excellence in Teaching Endowment.

Hiu-Yung joined the SJSU faculty in 2018 after 12 years in the semiconductor industry. He has published more than 70 peer-reviewed papers and holds 9 US patents. Hiu-Yung is passionate about helping his students excel. Currently, he is leading the creation of a Quantum Computing and Information specialization for the MSEE program.
David Parent Awarded DOD Grants

Congratulations to EE Faculty member David Parent, as he and his team were awarded a $600K grant by the Department of Defense. A multidisciplinary team of EE (David Parent as the principal investigator), ME, CME, and BME faculty won this grant from the Department of Defense to upgrade our Microscale Processing Engineering Lab (MPEL).

The equipment upgrade includes a three-stack diffusion/oxidation furnace and reactive ion etcher (RIE). The equipment will be used to study the reliability of silicon carbide (SiC) MOSFETs, a Department of Defense priority. Professor David Parent also works with local high schools to increase Hispanic Student Success in STEM at San Jose State University, San Jose City College, and Gavilan College.

Scholarship Opportunities for EE Graduate Students

The Electrical Engineering Department is excited to hear the news that Broadcom Incorporated has recently made a $20,000 donation to the Tower Foundation to be used for scholarships for URM graduate students in the Electrical Engineering and Computer Science departments.

Award distribution is yet to be determined but is earmarked for fall 2022. We are very grateful for their generous donation! Broadcom Corporation is an American fabless semiconductor company that makes products for the wireless and broadband communications industry. They are headquartered in North San Jose.
IEEE Back on Campus

The Institute of Electrical and Electronics Engineers (IEEE) is a worldwide professional society for engineers. It is also a student-led club on campus dedicated to helping Electrical Engineering students transition from students to professional engineers. (In fact, San Jose State has the most active student IEEE branch in the bay area.)

The SJSU chapter wants you to know that they are back on campus in room ENG376. Their new officers include Marielle Deguzman, Andrew Wang, Geoffrey Fierro, Umama Muntaha Kamal Oishi, and Ryan Wicklund. The IEEE has a large room where students can study, work on projects and socialize. They host events with the industry and help members with personal, professional, and technical development. They have many activities going on, making it a great way to network and make friends.

Follow IEEE on Facebook and Instagram for information on club events. For more info, contact the club at ieee@sjsu.edu.
New Curriculum in Electrical Engineering

The Electrical Engineering Department continues to expand its curriculum. We are excited to announce that the following new courses will be offered this coming Spring and Fall 2022:

- EE 171 - Introduction to Machine Learning for Electrical Engineers
- EE 182 - Analog and Mixed-Signal IC Test Development
- EE 226 - Cryogenic Nanoelectronics
- EE 282A - Reinforcement Learning for Multi-Robot Networks

In addition, we have restructured our graduate curriculum such that we now have nine areas of application specialization, which include:

3. Microprocessors, Computer, Embedded Systems, and Digital Systems
4. Device Physics, Micro Electronics, and Nano Electronics
5. Analog Electronics and Integrated Circuits
6. Power Electronics and Energy Systems
7. Artificial Intelligence, Machine Learning, and Deep Learning
8. Control, Robotic, and Autonomous Systems
9. Quantum Information and Quantum Computing
EE Faculty and Staff

Mohamed Badawy,
Assistant Professor
Ph.D., University of Akron

Sotoudeh Hamedi-Hagh,
Professor
Ph.D., University of Toronto

Shrikant Jadhav,
Assistant Professor
Ph.D., North Carolina AT&T State University

Essam Marouf,
Professor
Ph.D., Stanford University

David W. Parent,
Professor
Ph.D., University of Connecticut

Birsen Sirkeci,
Professor
Ph.D., Cornell University

Juzi Zhao,
Assistant Professor
Ph.D., George Washington University

Eric Crabill,
Lecturer
MSEE, Stanford University

Navid Ghazisaidi,
Lecturer
Ph.D., University of Quebec

Tri Caohuu,
Professor
Ph.D., Texas A & M University

Lili He,
Professor
Ph.D., State University of New York

Binh Q. Le,
Assistant Professor
Ph.D., Stanford University

Nader F. Mir,
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Ph.D., Washington University

Jonathan Ponniah,
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Ph.D., University of California, Illinois at Urbana-Champaign

Belle Wei,
Professor
Ph.D., University of California, Berkeley

Eveline Bellegarda,
Lecturer
Ph.D., University of Rochester

Ibrahim Delibalta,
Lecturer
Ph.D., Koc University

Fei Gu,
Lecturer
Ph.D., University of California, Irvine

Chang Choo,
Professor
Ph.D., Rensselaer Polytechnic Institute

Ping Hsu,
Professor
Ph.D., University of California, Berkeley

Thuy T. Le,
Professor & Department Chair
Ph.D., University of California, Berkeley

Robert H. Morelos-Zaragoza,
Professor
Ph.D., University of Hawaii

Jalel Rejeb,
Associate Professor
Ph.D., Syracuse University

Hiu-Yung Wong,
Assistant Professor
Ph.D., University of California, Berkeley

Anindita Bhattacharya,
Lecturer
Ph.D., Northeastern University

Khosrow Ghadiri,
Lecturer
Ph.D., International Technological University

Bhawandeep Singh Harsh,
Lecturer
MSEE, San Jose State University
Morris Jones,  
Lecturer  
MSEE, Brigham Young University  

Ray Kwok,  
Lecturer  
Ph.D., University of California, Los Angeles  

Nhat Nguyen,  
Lecturer  
Ph.D., University of California, Berkeley  

Ahmad Shahsiah,  
Lecturer  
Ph.D., Rensselaer Polytechnic Institute  

Igor Tyukhov,  
Lecturer  
Ph.D., Moscow Power Engineering Institute  

Bradley Carrell,  
Department Analyst  

Jalil Kamali,  
Lecturer  
Ph.D., Stanford University  

Sang-Soo Lee,  
Lecturer  
Ph.D., Carnegie Mellon University  

Tan V. Nguyen,  
Lecturer  
Dr. Eng., Santa Clara University  

Chao-Li Tamg,  
Lecturer  
Ph.D., University of Washington  

Tom Wrappe,  
Lecturer  
MBA, University of Chicago  

Roopa Gadham,  
Department Coordinator  

JeongHee Kim,  
Lecturer  
Ph.D., New Mexico State University  

Bhaskar Mantha,  
Lecturer  
Ph.D., University of Cincinnati  

Christopher Pham,  
Lecturer  
MSEE, San Jose State University  

Simon Tian,  
Lecturer  
Ph.D., Virginia Tech  

Manizeh Zand,  
Lecturer  
MSEE, San Jose State University  

Audrey Leong,  
Systems Analyst
### Industry Advisory Council

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<td>Infrastructure Technologist</td>
<td>IBM Almaden Research Center</td>
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