DESIGN YOUR FUTURE
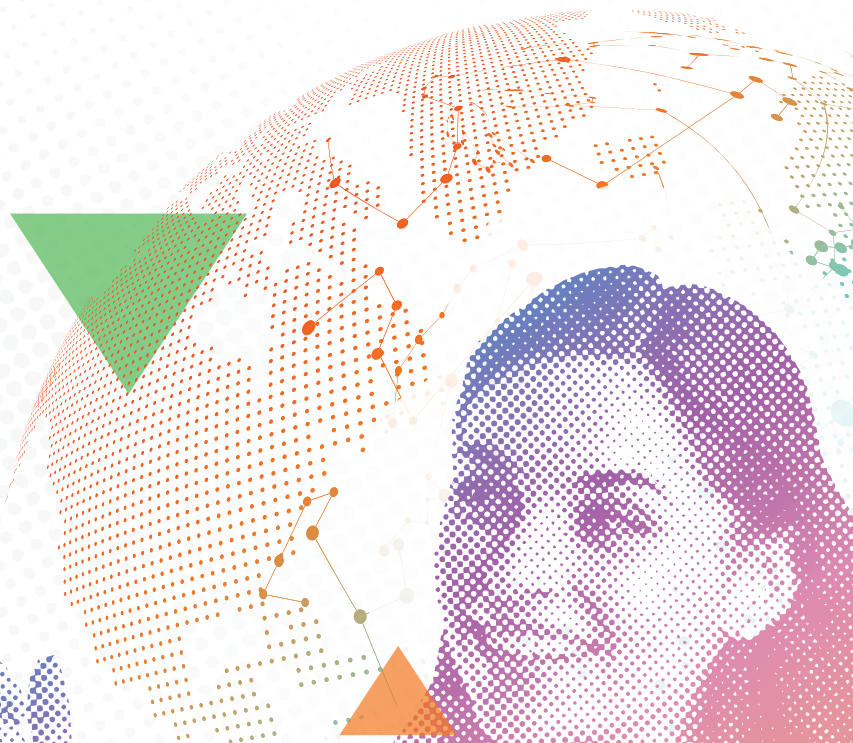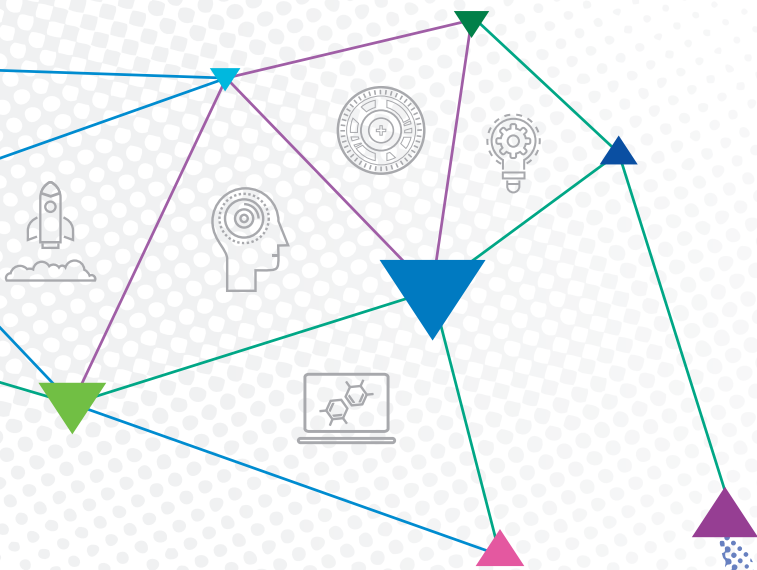
2019 Silicon Valley WiE Conference

Saturday, March 16, 2019, 7:30 AM – 7:00 PM
San José State University
siliconvalleywie.org

Title Sponsor
Mark and Carolyn Guidry
Women in Engineering Program Fund

SJSU | CHARLES W. DAVIDSON
COLLEGE OF ENGINEERING

Title Sponsor

Mark and Carolyn Guidry
Women in Engineering Program Fund

Carolyn Guidry (1937-2009) was born in Mississippi and spent her childhood in the Deep South. She earned her Bachelor of Science in Electrical Engineering at Louisiana State University in 1959. One week after graduation, she married Mark Guidry, a fellow electrical engineering major she met at LSU. Carolyn began her career at Boeing, but soon put her career on hold and devoted 20 years to raising their three children. She returned to school and earned her Master's degree in Computer Engineering from SJSU in 1979. She joined Hewlett Packard and was directly responsible for the development of a new flexible interconnect cable and the micro code for a new computer.

In partnership with Mark, Carolyn founded two successful companies in semiconductor design software and semiconductor product development. Both companies were later acquired and became leaders in their respective fields. After the second company was acquired by Integrated Circuit Systems in 1993, she founded the Mark and Carolyn Guidry Foundation and managed all aspects of the organization. She received an Award of Distinction from SJSU Davidson College of Engineering in 2006. Both she and Mark were inducted into the LSU College of Engineering Hall of Distinction in 2001.

Mark is a Louisiana native. After receiving his BSEE from LSU, he took a position at Boeing. He subsequently earned an MSEE from University of Washington and a PhD from Iowa State University. He taught at LSU, where he conducted research in semiconductor technology, laser technology and radio wave propagation. Prior to founding their companies, Mark worked at Fairchild Semiconductor in Palo Alto, a small San Diego company and Texas Instruments in Houston.

All three of Carolyn and Mark's children graduated with degrees in engineering. The Guidry family strongly believes in the power of education and the importance of developing engineering education in the U.S. for what lies ahead. The Mark and Carolyn Guidry Foundation has been a long-time leader in supporting women in engineering at SJSU. Its commitment and on-going support have made the Silicon Valley Women in Engineering program a model of success for educating new woman innovators regionally and nationally.

Contents

Welcome

It gives me great pleasure to welcome you all to the 2019 Silicon Valley Women in Engineering (WiE) Conference, hosted by the Charles W. Davidson College of Engineering at San José State.

This is our fifth year of bringing students together with outstanding women and men from all engineering disciplines in order to promote both industry knowledge and career wisdom. We have heard from past attendees that this conference changes lives, and I hope you will similarly use what you learn here today to design and launch your own future.

It is common sense that any new technology used by a globally diverse population must be envisioned, designed, and created by an equally diverse group of engineers. To that end, I urge you to build or expand your own support network. Meet at least three people you don't know at this conference, and share your stories as well as business cards.

Finally, I'd like to express my deepest thanks to all of the sponsors, faculty, students, and support staff who help to make this conference possible. We very much appreciate your contributions.

Enjoy the conference,

Sheryl H. Ehrman
Don Beall Dean
Charles W. Davidson College of Engineering, SJSU

Agenda

7:30–8:30 am	**Registration & Breakfast**
8:30–9:30 am	**Welcome & Opening Keynotes**
9:45–10:45 am	**Concurrent Session A**
11:00 am–12:00 pm	**Concurrent Session B**
12:15–1:30 pm	**Lunch Keynote & WiE Roundtable Discussions**
2:00–3:00 pm	**Concurrent Session C**
3:15–4:45 pm	**Concurrent Session D**
5:00–7:00 pm	**WiE Innovation Showcase & Networking Reception**
6:45 pm	**Raffle Drawing**

The most dangerous phrase in the language is, "We've always done it this way."

- Grace Hopper

Let's create our own way.

Message from the Conference Chair

Design Your Future

Hardly a day goes by that we don't see headlines such as "Robots are coming," or "Automation is taking our jobs." According to the 2017 McKinsey Global Institute Report, nearly a quarter of U.S. jobs will be automated by the year 2030. As the next-generation workforce, you should be prepared to face three possible workforce scenarios: your job will become obsolete; your job will require you to have competency with AI; your job will require you to design AI systems. Given these scenarios, it is critical that you are proactive in preparing for a future that will be dramatically different from the past. It's like the difference between boarding a bullet train that will take you where you want to go, and being left behind.

AI and automation have the potential to transform the employment landscape, and therefore the economy as a whole. Climate change has the same potential. Climate change is a reality, and its adverse impacts are growing. It's the reason that the 2018 Camp Fire was the largest and most destructive fire in California's history. A 2012 report by the National Research Council warned that California could experience a sea level rise of up to two feet by 2050. To put this in perspective, the greater San Francisco Bay Area, including our airports and seaports, will be especially vulnerable.

AI/automation and climate change impacts are two of the biggest challenges that we face. We are here today because we know with certainty that engineering innovation must play a leading role in response to these challenges. The issues we need to solve are highly complex, rapidly evolving and global in scope. They require a depth and breadth of engineering knowledge possessed by teams of engineers in different engineering disciplines. No single person, university, or company, can tackle these challenges alone. Increasingly, engineering strategies and teams need to be flexible and adaptable.

What this means for all of you here today is that your career planning and job search strategy must be grounded in this reality. It is not something you typically learn inside classrooms.

We were mindful of this when planning this year's Women in Engineering Conference. We invited women leaders to share valuable insights gained from successes and setbacks in their career experiences.

To pursue a technical education and navigate your best path from campus to career takes discipline and perseverance. There's tremendous benefit in meeting women leaders who've tackled challenges similar to the ones you face today. Whether to gain knowledge or seek guidance from these accomplished women, the conference provides a rare opportunity for you to connect with them on a personal level and by doing so, build a stronger community in the process. Throughout the day, allow yourself to focus fully on what it means to "design your future." It's an important step on your path to join other women trailblazers in the years to come.

Belle Wei
Carolyn Guidry Chair of Engineering Education
and Innovative Learning
Charles W. Davidson College of Engineering, SJSU

Plenary Sessions

Whendee Silver
Rudy Grah Chair and
Professor of Ecosystem Ecology
and Biogeochemistry
U.C. Berkeley

Morning Keynote
Topic: Solving Climate Change:
Perspectives From a Non-engineer

Dr. SIlver's work seeks to determine the biogeochemical effects of climate change and human impacts on the environment, and the potential for mitigating these effects. The Silver Lab is currently working on climate change mitigation potential of working lands, drought and hurricane impacts on tropical forests, and greenhouse gas dynamics of peatlands and wetlands. Professor Silver is the lead scientist of the Marin Carbon Project, which is determining the potential for land-based climate change mitigation, particularly by composting high-emission organic waste for soil amendments to sequester atmospheric carbon dioxide. The Silver Lab was awarded the Innovation Prize by the American Carbon Registry.

Professor Silver is a fellow of the Ecological Society of America and an Aldo Leopold Leadership Fellow. In 2016, she was named a University of California Climate Champion for outstanding teaching, research and public service in the areas of climate change solutions, action and broad engagement. She has over 150 peer-reviewed publications. She received her PhD in Ecosystem Ecology from Yale University.

Michelle Bockman
Global Head of 3D Printing
HP

Morning Keynote
Topic: Applying Industry 4.0 to
Your Future

Michelle Bockman is the Global Head of 3D Printing Commercial Expansion & Development at HP Inc. In this role, she focuses on growing the market through key customer engagements, global alliances, materials partner programs, applications development, creating new software solutions, and ensuring the best customer experience and outcomes.

Previously, Michelle had a long career at GE, most recently as executive vice president at GE Digital where she led the company's ambitious strategy to build a software-driven digital future for large industrial customers and establish GE Digital as a $15 billion stand-alone P&L.

With more than 20 years of digital industrial experience she has led a variety of functions in the healthcare, industrial cybersecurity, pharmaceutical, and automotive sectors spanning commercial, engineering, service, and supply chain roles.

Michelle holds a B.S. in mechanical engineering from the Missouri University of Science & Technology and is based in Palo Alto, California.

Sandra L. Rivera
Senior Vice President and
General Manager
Network Platforms Group
Intel Corporation

Lunch Keynote
Topic: Passion and Purpose: Driving
Your Future Forward

Rivera is responsible for the Intel business group charged with providing innovative technology and solutions to the networking industry. She is also Intel's 5G executive sponsor and is responsible for guiding Intel's strategy, commitments, and deliverables for 5G.

Rivera leads a global organization of over 2500 employees to drive the transformation of network infrastructure to Intel-based solutions. This is one of the Data Center Group's fastest growing businesses, enabling Intel to become a market leader for network logic silicon, an annual $20B market segment.

Rivera joined Intel in 2000 as a marketing director after the acquisition of Dialogic Corporation. Before joining Intel, Rivera co-founded and served as president of The CTI Authority, and served as president of the computer telephony division at Catalyst Telecom.

Rivera holds a bachelor's degree in electrical engineering from Pennsylvania State University. She sits on the governing board of the Linux Foundation Networking project, and is a member of the Intel Hispanic Leadership Council.
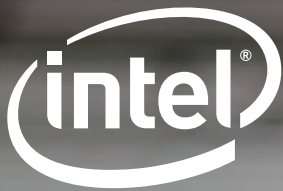
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Intel is proud to sponsor the Silicon Valley Women in Engineering Conference

Track 1:
Better Environment

1A: Energy Generation and Management

Session Chair
Hongrui Liu, Assistant Professor, Industrial and Systems Engineering, SJSU

Location
SU 3A

Energy is one of the most imperative aspects of the country's technological progress. Efficient use of energy and its saving is essential for sustainable development. In this session, we have invited Ms. Deborah W. Powell from PG&E to talk about the energy generation and the new challenges and opportunities posed to energy management; Ms. Sanam Mirzazad from EPRI to talk about how AI has been used in power energy industry and the bottlenecks, and Dr. Michael Toney from SLAC National Accelerator Laboratory to talk about using X-rays to see how Batteries Work to promote sustainable energy materials.

A Changing Energy Landscape

Debbie Powell
Vice President
Power Generation
Pacific Gas & Electric

Debbie Powell is Vice President, Power Generation for Pacific Gas & Electric Company. In this role, she is responsible for the safe, reliable, efficient operation, and licensing of the Utility's 5400 MW portfolio, consisting of Hydro, Fossil and Renewable generating units. Powell joined PG&E in 2010, and has held leadership positions within the Power Generation and Electric lines of business.

Prior to joining PG&E, Powell led the Lower Colorado River Authority's 425 MW Thomas C. Ferguson Power Plant, as Plant Manager.

Powell began her career in the United States Navy and served in a leadership capacity on several combatant ships. Powell has a B.S. in General Science from the U.S. Naval Academy.

Partnership of the AI Community and the Power Industry Towards a More Intelligent Grid

Sanam Mirzazad
Technical Leader
Electric Power Research Institute (EPRI)

Sanam Mirzazad is a Technical Leader at Electric Power Research Institute (EPRI). In her current position, she leads the integrated grid activities associated with the EPRI's artificial intelligence (AI) initiative where she leverages her expertise in closing the gap between the power industry and AI community. Sanam holds a Master's degree in Power systems from Sharif University of Technology and a Ph.D. in Control systems from The Pennsylvania State University. Before joining EPRI, she worked as a research scientist at Fujitsu labs of America where she worked on multiple projects in smart energy, human-computer interaction, and natural language understanding.

Using X-rays to See How Batteries Work

Michael Toney
Head of Materials
Sciences Division
SLAC National
Laboratory

Michael Toney is head of the Materials Sciences Division and a distinguished staff scientist at the Stanford Synchrotron Radiation Lightsource (SSRL), part of the SLAC National Accelerator Laboratory. He is a pioneer in the use of X-ray diffraction and small angle scattering for the determination of molecular and mesoscale structure of organic and polymeric thin films and for the determination of atomic structure of electrode-electrolyte interfaces. His research interests focus on fundamental understanding of phenomena that underlie functioning of electrochemical energy storage and conversion materials.

Track 2:
Increasing
Productivity

2A: Machine Learning Applications

Session Chairs
Feruza Amirkulova, Assistant Professor, Mechanical Engineering, SJSU

Juzi Zhao, Assistant Professor, Electrical Engineering, SJSU

Location
SU 4B

AI, Machine Learning, Natural Language Processing, and Advanced Analytics are boosting business performance. In this session, we will learn AI applications in enterprise by speakers from leading companies. Ms. Jetcheva from Accenture will share with us the challenges and opportunities in AI in the enterprise. Ms. Li from IBM will describe the Role of AI in enterprise applications. Ms. Ozcan will speak on Exploring Knowledge Graphs via Natural Language Interfaces.

AI in the Enterprise: Challenges and Opportunities

Jorjeta Jetcheva
Senior Manager
Accenture

Jorjeta Jetcheva is a Senior Manager and Distinguished Research Scientist in Artificial Intelligence at Accenture. She is the R&D lead for the Virtual Assistant portfolio within Accenture Operations.

Jorjeta has received multiple innovation and research awards, including top 10 finalist in the Fujitsu Next Generation Product Idea Contest (out of 454) in 2016 for her project "Robo Butler", and the Best Paper Award at SmartGridComm 2014.

She is currently a Board Member for the N2Women organization and serves as its mentoring co-chair. In 1998, Jorjeta co-founded women@scs at Carnegie Mellon.

Jorjeta received a Ph.D. degree in Computer Science from Carnegie Mellon University, and a B.A. degree in Computer Science (summa cum laude) and Mathematics from Mount Holyoke College.

Building Domain-Specific Knowledge Bases with Human in the Loop

Yunyao Li
Senior Research Manager
IBM Research - Almaden

Yunyao Li is a Senior Research Manager with IBM Research - Almaden, where she manages the Scalable Knowledge Intelligence department. She is a member of the New Voices program of the American National Academies. She is a Master Inventor and a member of IBM Academy of Technology. Her expertise is in the areas of NLP, databases, human-computer interaction, and information retrieval. Her contributions have resulted in 50+ research publications, 30+ patent filings and recognized by multiple prestigious IBM internal awards.

She received her PhD and master's degrees from the Univ. of Michigan-Ann Arbor and bachelor's degrees from Tsinghua University. She is deeply passionate about improving the diversity for the STEM field and currently leads the Almaden Women's Interest Network Group at IBM.

Exploring Knowledge Graphs via Natural Language Interfaces

Fatma Ozcan
Principal Research
Staff Member
IBM Research

Fatma Özcan is a Principal Research Staff Member and a senior manager at IBM Almaden Research Center. Her current research focuses on democratizing analytics via NLQ and conversational interfaces to data, platforms and infrastructure for large-scale data analysis, and query processing and optimization of semi-structured data. She has over 17 years of experience in industrial research, and has delivered core technologies into IBM products. She is the co-author of the book "Heterogeneous Agent Systems", and co-author of several conference papers and patents. She serves on program committees of leading data conferences, and editorial boards of journals, as well as NSF panels. She is an elected member of the SIGMOD Executive Committee, and is on the board of trustees for the VLDB Endowment.

Track 3: Improving Health

3A: Robotics and Medical Devices

Session Chairs
Winncy Du, Professor, Mechanical Engineering, SJSU

Wencen Wu, Assistant Professor, Computer Engineering Department, SJSU

Location
ENGR 331

Robots are intelligent systems that can replace humans to perform various tasks. Today, advanced robots are changing the world around us: from restaurant service to assistive surgery to military mission. The increasing application of robots in medical device has greatly reduced operating costs, improved clinical outcomes, and increased efficiency and accuracy. Experts from two well-known robotics companies, Intuitive Surgical and Omron/Adept Technology, will share their experience on developing da Vinci robots and compliant/intelligent robots, followed by a real robot demonstration.

Managing Challenges in Product Development Process

Neeta Mhatre
VP, Program
Management Office,
New Product Development
Intuitive Surgical

Neeta is an accomplished medical industry leader with over twenty years of global experience in diverse organizations from startups to large corporations. She joined Intuitive Surgical in Feb 2015 to form the Project Mgmt Office. Neeta was with Siemens for 12 years and had various leadership roles, from Business Head South Asia Cluster to Chief Information Officer within the Siemens Ultrasound Leadership Team, as well as, Senior Director of Product Management for Product, Portfolio & Strategy team at Siemens.

Neeta has an MBA from Santa Clara University and a BS in Biomedical Engineering from the University of Bombay, India.

Introduction to Collaborative Robots

Norm Williams
Director of Robotics
Omron Corporation

Norm Williams is the Director of Robotics for Omron Corporation. Norm is leading Omron's robotics sales and support for the America's and his team is responsible for developing and implementing robot solutions that promote harmony between humans and machines. With the introduction of collaborative robots, the adoption of robots working in conjunction with humans is skyrocketing.

With over 25 years of experience in the automation and robotics industry, Norm has focused his career around bringing new technologies to market. From starting and selling automation business to working with start-up robotics

companies in Silicon Valley, he has been providing leading technology solutions to companies within the life sciences, semicon/digital, automotive, and food & packaging industries.

Mimi Parker
Product Engineer–Robotics
Omron Corporation

Mimi Parker works with industrial and collaborative robots as a Robotics Product Engineer at Omron. Her work focuses on applications and solutions development for the robot product line and coordinating her tasks with software development engineers, robotics application engineers, service engineers, as well as safety product experts. She is a recent graduate from UC Berkeley with a master's degree in mechanical engineering where she did her research on exoskeleton design. Her interest in robotics grew while interning as an undergrad at Jet Propulsion Laboratory, and prior to that, she worked as a professional audio engineer in Los Angeles. She looks forward to meeting other engineers who are excited about their work!

Emerging Technologies

Track 4: Better Living

4A: Tech for Good

Session Chair
Ayca Erdogan, Assistant Professor, Industrial and Systems Engineering, SJSU

Location
SU 1A

Artificial Intelligence (AI) tools are being used to address challenging health, environmental, and social problems. This section introduces two speakers who will discuss the use of AI for social good. Dr. Kristin Tolle will talk about the AI for Good program in Microsoft Philanthropies, and her role in the Tech for Social Impact Team investigating how AI can deliver impact that benefits the world while ensuring right to privacy. Dr. Michelle Zhou will talk about building AI agents who can understand users' feelings and responsibly guide their behaviors and show initial applications to talent selection, student learning, and user experience research.

Using Artificial Intelligence for Social Good

Kristin Tolle
Chief Data Scientist
Microsoft Tech for
Social Impact

Currently I am the Chief Data Scientist in Microsoft's Tech for Social Impact team where we design and build cloud-based, AI-enabled solutions for non-profits. I am also a Machine Learning lecturer and Senior Data Scientist at the eScience Institute at University of Washington. I've held many leadership positions in Microsoft's Engineering organization, from Visual Studio to our Artificial Intelligence product team. Most of my career has been in Microsoft Research building and managing research initiatives from biomedical computing, natural user interactions, environmental science and data science. I'm also the co-editor and co-author of the earliest books on big data, The Fourth Paradigm: Data Intensive Scientific Discovery.

Getting Virtually Personal: Responsible and Empathetic "Her" for Everyone

Michelle Zhou
CEO
Juji, Inc.

Dr. Michelle Zhou is a Co-Founder and CEO of Juji, Inc., a high-tech startup located in Silicon Valley, specializing in building responsible and empathetic Artificial Intelligence agents that can deeply understand users and guide their behavior based on their psychological characteristics. Prior to starting Juji, Michelle led the User Systems and Experience Research (USER) group at IBM Research – Almaden and then the IBM Watson Group.

Michelle's expertise is in the interdisciplinary area of intelligent user interaction (IUI), including conversational systems and personality analytics. She has published over 100 peer-reviewed, refereed articles and filed over 40 patents. Michelle is currently the Editor-in-Chief of ACM Transactions on Interactive Intelligent Systems (TiiS) and an Associate Editor of ACM Transactions on Intelligent Systems and Technology (TIST). She received a Ph.D. in Computer Science from Columbia University and is an ACM Distinguished Scientist. https://juji.io/people/mzhou

Concurrent Session

A

9:45–10:45 AM

Professional Development

Track 5: Your Career Paths

5A: Design Your Future

Location
ENGR 343

You've heard about the potential impact of automation on future jobs. Are you ready for a future in which occupations could change significantly every 5 to 10 years? In this interactive workshop, you will actively design your future in evolving STEM occupations. From assessing your strengths to mapping strategies to build valuable experience, you will emerge with a process for prototyping your career throughout your life.

Anita Manuel, M.A.
Associate Director,
Career Education
San Jose State
University

Anita Manuel is a career educator and administrator with 17 years of higher education experience serving students at various colleges and universities in the heart of Silicon Valley. She received her M.A. in Counseling from Santa Clara University with an emphasis in Career Development and currently serves as the Associate Director for Career Education at San Jose State University.

Anita is dedicated to helping clients develop innovative strategies that support the creation of meaningful careers. Her specialties include: strategic personal brand development and marketing, career design methods, curriculum development & instructional design.

Track 6: Career Planning

6A: Securing Future Jobs

Chair
Catherine Voss Plaxton,
Director, Career Center,
SJSU

Location
SU 2A

The walls between labor market analysis, recruiting, and employee development are disappearing. Learn from professionals in labor market intelligence, AI-informed recruiting, and talent development how future jobs will be defined, candidates will be recruited, and employees will be developed and retained. Explore how to prepare for this future of job searching.

Julie Lin
People Analytics & HR
Technology Strategy
Dropbox

Julie is currently on the People Analytics and Technology team at Dropbox. Prior to Dropbox, she also had Workforce Planning/ HR Analytics/Reporting and HR Merger & Acquisitions experience in Retail, Insurance and Entertainment industry where her primary focus was on bettering HR and recruiting decision making through strategic use of data. With a bachelor degree in Economics and master degree in HR, she is very passionate about revolutionizing Human Resource function through strategic people analytics and cutting-edge technology.

Shruti Patil
Senior Engineer
Eightfold.ai

Shruti is an early engineer and a technical lead on the data platform component at Eightfold.ai. Before Eightfold, she was a technical lead and an early engineer at YouTube. At YouTube she worked on scaling YouTube infrastructure during its hyper growth phase. She has led product and mobile teams whose work reached millions of users.

In her spare time, she enjoys spending time with her family, gardening, reading and doing yoga.

Sarena Riggi
Technical Recruiter
SAP North America

Sarena Riggi is a Technical Recruiter for SAP North America. Sarena left the Semiconductor industry to join SAP in the summer of 2014 and celebrated her 4-year anniversary in August. These days, she is passionate about talent branding, early talent mentoring, project management, and the candidate experience. Being a California native, camping, time on the water, a good cup of coffee, and anything where her dog Rio can join is considered a good time to this recruiter.

Concurrent Session

B

11:00 AM–12:00 PM

Emerging Technologies

Track 1: Better Environment

1B: Smart Transportation

Session Chair
Francesca Favaro,
Assistant Professor, Aviation Program, SJSU

Location
ENGR 285

This session will cover Smart Transportation broadly defined: from the novelty of e-scooter, to self-driving cars, and then moving up to the sky, describing what the world of micro satellites can do to improve and redesign our future. We are assisting to a revolution of how we conceive transportation, and how smart approaches to these technological challenges can lead to better services for our communities. Speakers from Waymo, Bird, and NASA will showcase how advancements in transportation technology can lead to a safer world, where transportation of people and goods is optimized.

The Future of Transportation

Vicki Guan
Engineering Manager
Bird

Vicki leads the Core App Experience team at Bird, where she ensures the scooter renting experience is both user-friendly and community-friendly. Previously she was an Engineering Manager at AutoFi, where she developed patented algorithms to enable real-time auto loan comparisons. She graduated from the University of Pennsylvania with a MS degree in engineering and a BS degree in finance and mathematics.

Technology Educational Satellite and the Revolution of Technology

Ali Guarneros Luna
Program Manager
NASA Ames

Ali Guarneros Luna works with the Office of System Safety & Mission Assurance at NASA Ames. Prior to this position, Ali worked in Ames' Engineering Directorate as expert for small satellite development and payloads bound for the International Space Station. Ali has served as system engineer and mission/ground ops/launch expert for multiple CubeSat projects at both the Synchronized Position Hold, Engage, Reorient, Experimental Satellites National Lab, as well as in the Edison Program. She is currently the deputy project manager for SOAREX 10, and Safety Mission and Assurance expert for TechEdSat 5 and 6.

Ali was born in Mexico City and now lives in San Jose. She received her BS and MS degrees in Aerospace Engineering from SJSU in 2010 and 2013.

A Better Safer Future

Chen Wu
Senior Engineering Manager
Waymo, Google

Chen Wu is a senior engineering manager in the perception team at Waymo. Her team is responsible for perceiving the world through various sensor modalities available on the self-driving car. This involves computer vision, machine learning, as well as building robust and real-time self-driving systems. Chen received her Ph.D. and M.S. from Stanford, and her B.S. from Tsinghua University, China. Prior to working on self-driving cars, Chen worked on camera and vision projects at Google Glass and YouTube.

Track 2: Increasing Productivity

2B: Blockchain

Session Chair
Younghee Park, Assistant Professor, Computer Engineering, SJSU

Location
SU 4A

Blockchain technologies have impacted various cyberspaces because they have their unique advantages with immutability and decentralized trustless transactions. In particular, decentralized Applications (dApps) have emerged as a new model for building massively scalable services in digital payments, Internet-of-Things, health systems, and social networks. However, the potential implications of Blockchain technologies go far beyond their decentralized applications as the technological backbone for cryptocurrencies. This session discusses the future roles and directions of Blockchain technologies with three industry speakers who are currently leading in blockchain technologies.

The Next Generation of Identity—One that Belongs to You

Armin Ebrahimi
CEO
ShoCard, Inc.

Ebrahimi is Founder and CEO of ShoCard, a distributed digital identity platform that protects users privacy through patented use of mobile devices and the blockchain. Before ShoCard, he was the CEO of ADR, an AOL company. Prior to filling this role, he was Senior Vice President of Platform Engineering at Yahoo, with responsibility for Yahoo's registration and anti-fraud platform services. He also built Yahoo's original Display Advertising platform that served more than 20 billion transactions a day. Armin founded and was CEO of TRIicon Solutions, acquired by Tandem Computers.

Armin holds a doctorate in organizational management from Capella University, as well as Master and Bachelor of Science degrees in Computer Science from California State University – Chico.

The Next Revolution: Enterprise Blockchain

Pratima Gluckman
Engineering Leader
VMware

Pratima Gluckman has worked in the software engineering field for two decades where she has both developed and driven software solutions for Silicon Valley startups and several Fortune 500 companies. At VMware, she spearheaded several engineering initiatives in Compute and Networking space. She runs Blockchain engineering and is an intrapreneur at heart.

She is passionate about diversity in the workplace and has led the charge on several initiatives for gender and diversity efforts both internally and for the company's campus recruiting. She recently published a book detailing leadership journeys called Nevertheless She Persisted: True Stories of Women Leaders in Tech and speaks at conferences, universities and companies around the world. www.pratimagluckman.com

Blockchain: What Is Real and What We Need to Focus On to Make It Real

Dulce Ponceleón
Principal Research Staff Member
IBM Research Almaden

Dulce Ponceleón is a Principal Research Staff Member in the Infrastructure for Intelligent Information Systems group at IBM Research-Almaden. Her broad interests across different disciplines include natural language processing, machine learning, blockchain, and security. She has worked in information retrieval, multimedia content analysis, numerical linear algebra, and content protection. She led IBM's Content Protection team resulting in significant contributions to Blu-ray Content Protection Standard's consortium. While at Apple Computer, Inc. she was a key contributor to QuickTime Conferencing. She received her Master and Ph.D. degree in Computer Science from Stanford University. She earned her B.S. degree (Cum Laude) in CS from Universidad Simon Bolivar, Caracas, Venezuela.

Track 3: Improving Health

3B: Next Generation Diagnostics

Session Chair
Miri VanHoven, Associate Professor, Biological Sciences, SJSU

Location
ENGR 345

With new technologies that allow mapping and sequencing of genomes in weeks, rather than decades, we have the potential to make treatments more effective by personalizing them. The field of personalized medicine has the potential to revolutionize medicine, allowing us to better understand the molecular underpinnings of diseases, and tailor treatments to individuals. This session will focus on how personalized medicine is being moved forward both in academic settings and in Silicon Valley.

Next Generation Sequencing (NGS) and Liquid Biopsy

Gloria Chui
Staff Scientist, Technology Development
Guardant Health

Gloria Chui received her Bachelor's degree in Public Health from National Taiwan University, her Master's Degree in Environmental Science from Rutgers University, and her PhD in Biochemistry and Molecular Biology at U.C. Berkeley, studying the mechanisms of eukaryotic DNA replication direction with Dr. Stuart Linn. She then joined Dr. Ron Davis's laboratory at Stanford University, where she constructed mutant thermal DNA polymerases and studied DNA damage and repair.

Dr. Chui has worked in several biotech companies, developing analytical test methods for molecular diagnostic products and blood immunophenotyping assays for cancers. Currently, Dr. Chui is developing cancer diagnostic products using Next Generation Sequencing technologies.

Enabling Precision Medicine and Clinical Cancer Research with Next-Generation Sequencing

Stephanie Yaung
Principal Scientist, Medical & Scientific Affairs
Bioinformatics Liaison
Roche Sequencing Solutions

Stephanie Yaung leads a global team of bioinformatics scientists to support clinical studies and product development at Roche Sequencing Solutions. Stephanie joined Roche in 2015 after earning a Ph.D. in Medical Engineering and Medical Physics from the Harvard-MIT Division of Health Sciences and Technology and completing her thesis research in George Church's lab at Harvard Medical School. Stephanie received dual B.S.. degrees in Biological Engineering and Management Science with minors in Mathematics and Biology from MIT.

B

11:00 AM–12:00 PM

Emerging Technologies

Track 4:
Better Living

4B: Machine Learning Systems

Session Chairs
Hyeran Jeon, Assistant Professor, Computer Engineering, SJSU

Birsen Sirkeci, Associate Professor, Electrical Engineering, SJSU

Location
SU Theater

In this session, we will learn machine learning systems by exploring interesting usecases and performance profiling tools as well as challenges faced as women in AI tech from speakers of three leading companies.

Cynthia Kaschub from Intel will overview various challenges that should be considered for designing fully autonomous agents and show the effectiveness of UX for improving productivity and deriving smarter decisions.

Qiumin Xu from Google will introduce Google's machine learning accelerator, TPU, and show the interactive visualization tool that profiles the performance of TPU on Google Cloud.

Renee Yao from NVIDIA will share her experiences as a woman leader working in the AI industry by exploring unique opportunities and challenges that women face in tech.

The Autonomous Mobile Agent Development Challenge

Cynthia Kaschub
Principal Engineer
Intel

Cynthia is a Principal Engineer in Intel's Visual Computing Products Group. She currently leads User Experience (UX) for Video Analytics and led UX for the Autonomous Driving Data Center Research & Development Platform. Cynthia holds a PhD in Cognitive Psychology. She is passionate about increasing women's representation in the tech industry and co-founded the Women in Big Data Forum in 2015 with now 6000+ Linkedin members and chapters worldwide. (https://www.womeninbigdata.org/).

Cloud TPU Profiling

Qiumin Xu
Software Engineer
Google

Qiumin Xu is a Software Engineer at Google. She creates interactive visualization to understand the performance of machine learning models running on large scale accelerators. She is a main contributor to TPU performance tools on Google Cloud. Before joining Google, she spent six years in Los Angeles obtaining a PhD in computer architecture at University of Southern California.

Working in the AI Industry

Renee Yao
Senior Product
Marketing Manager
NVIDIA

Renee Yao is a senior product marketing manager at NVIDIA, focusing on deep learning and data science solutions on AI Systems, the essential instruments for AI development. She graduated from Haas School of Business at the University of California, Berkeley and was named the top 50 B2B product marketers to watch in 2016. When she has free time, she enjoys competitive Latin dancing, horseback riding, golfing, sculpturing.

Track 5:
Your Career Paths

5B: Make the Most of Professional Mentoring

Chair
Kelly Masegian, STEM Career Counselor, SJSU Career Center

Location
SU 1B

A key factor in workplace success is feeling engaged in and connected to the people, culture, and processes of an organization. Another success factor is learning to build on your strengths and improve on your weaknesses. Being a mentee in a professional mentoring relationship is a powerful way to work on these success factors. Learn from panelists engaged in professional mentoring and inclusion initiatives on how you can make the most of your professional mentoring opportunities. Hear about an initiative at SJSU to grow professional mentoring connections.

Rosie Cofre
Belonging and Diversity, Principal Workday

Rosie Cofre is a Belonging and Diversity, Principal at Workday, a software company that develops Finance and HR Cloud Based ERP solutions.

She has over 15 years experience as a Belonging, Inclusion and Diversity Leader working with High Tech companies as they embark on game changing strategies. She has been featured in Mother Magazine: "June/July, 2013 Best Companies for Multi-Cultural Women" and is a recipient of the "Best Service Delivery Optimization-Enterprise Support" award from the Services and Support Professional Association.

She has lived in Europe and South America and loves traveling within the US and Internationally. Rosie received two undergraduate degrees from San Jose State University and a Master Degree from Golden Gate University.

Stephanie Evans-Wemusa
Human Resources Business Partner HP Inc.

Stephanie is a HR Business Partner at HP, working with the CTO Labs in Palo Alto and the UK, a Human Resources and Talent Life Cycle Professional with over fifteen years of experience developing inclusive workplace practices to source, recruit, engage and advance diverse employees. Prior to joining HP, she has worked with some of SF Bay Area's signature organizations such as: Apple, eBay, Yahoo!, Juniper, Solectron, and IBM.

Stephanie holds a BA in Behavioral Science from SJSU and an MS in Human Resources Organization Development from USF.

In addition, Stephanie currently enjoys teaching ENG 100w course in the Engineering Department at San Jose State University and previously taught Leadership Fundamentals at Santa Clara University Levy School of Business.

Cristina Sandoval
Manager, Workforce Development & University Initiatives SEMI

Cristina joined SEMI as a workforce development manager to help the microelectronics industry address talent challenges. She is leading SEMI's mentoring program, university initiatives, and supports SEMI's diversity and inclusion efforts. Cristina is a first generation latina who graduated from the University of California, San Diego with a bachelors of science in cognitive science and a specialization in neuroscience. She's passionate about bringing diverse talent to tech, and hopes that her programs will have a long term effect on the microelectronics industry.

Deborah Sloan
Sr. Engineer, Supplier Development - Chemistry & Reagents Cepheid

Debbie has a Master's in Mechanical Engineering from Stanford, where she did graduate research in molecular spectroscopy. She also has a Bachelor's in aerospace engineering, a professional certificate in genetics and genomics, and a graduate certificate in bioinformatics. She has worked in the aerospace and semiconductor industries, before finding her home in biotech. Currently Debbie is leading a technical team within the supply chain group at Cepheid, the global leader in molecular diagnostics.

Debbie logged over 300 skydives while in her 20's, but has since retired from the sport. She currently enjoys philosophy, reading, learning new skills, and backpacking with her husband in the summer.

Track 6:
Career Planning

6B: What Are Employers Looking For?

Chair
Andrea Schwartz Boone, Founding Executive Director, Braven

Location
ENGR 343

You've put in the hard work in your classes, and now it's time to land a strong internship or job. But how can you stand out to employers? Join two technical recruiting leaders and a product manager as they share their personal stories and best advice to future job seekers. They'll save time to answer your questions, too!

Jasmín Garcia
Sr. Technical Recruiter
Google

Jasmin is a Sr. Technical Recruiter at Google and an SJSU alum. Before joining the Diversity Staffing team, Jasmin was a top producing recruiter for the Ads Product Area at Google. As a Bay Area native, Jasmin has the unique opportunity to combine all of her passions into one determined objective: bringing opportunity to underrepresented talent to excel in technology with the purpose to innovate and improve the world. She is currently working on projects focused on reaching local communities and talent in Mexico. While work is both fun and challenging, Jasmin makes time to incorporate some favorite hobbies into her routine. She practices yoga and mindfulness regularly, actively follows and supports social justice causes, loves to dance salsa, and spends quality time with her family.

Nury Phillips
Director, Global Talent Acquisition & Mobility
Agilent

Nury Phillips has been with Agilent 25 years, starting with HP as a campus hire and moving to Agilent at the time of the company split in 1999. Nury has had the opportunity to hold various positions in order fulfillment, IT, and HR. Nury has been the Director of Global Talent Acquisition and Mobility since 2014. In this role, she has honor of attracting and hiring the best talent to Agilent. Agilent's values, global reach, and mission, to improve the quality of life, are a huge draw for Nury. She enjoys the adventure of a challenge, in addition to being constantly inspired by her team. Nury received her BBA and MBA from the University of Miami in Coral Gables, Florida. For more information regarding opportunities at Agilent, please visit our website at www.agilent.com/go/careers.

Alice Xiong
Senior Product Manager
LinkedIn

Alice Xiong is the Product Lead for Search and Discovery at LinkedIn. Before LinkedIn, Alice has worked in product management in Oracle, Motif Investing, and Airbnb. She has a B.S. in Computer Science from Shanghai Jiao Tong University and Masters from MIT. She is an activist for women in tech and women in product, and has been giving talks and panel discussions about product management and women in product.

7:30–8:30 am	Conference Registration & Continental Breakfast

8:30–9:30 am
Location: Ballroom A/B/C

Welcome and Opening Keynotes

Solving Climate Change: Perspectives From a Non-engineer
Dr. Whendee Silver, Rudy Grah Chair and Professor of
Ecosystem Ecology and Biogeochemistry, U.C. Berkeley

Applying Industry 4.0 to Your Future
Michelle Bockman, Global Head of 3D Printing, HP

9:30–9:45 am — Break

Emerging Technologies

Tracks	**1** Better Environment	**2** Increasing Productivity	**3** Improving Health
Concurrent Session A 9:45–10:45 am	**1A** Energy Generation and Management Chair: Hongrui Liu **Location: SU 3A**	**2A** Machine Learning Applications Chairs: Feruza Amirkulova, Juzi Zhao **Location: SU 4B**	**3A** Robotics and Medical Devices Chairs: Winncy Du, Wencen Wu **Location: ENGR 331**

10:45–11:00 am — Break

Concurrent Session B 11:00 am–12:00 pm	**1B** Smart Transportation Chair: Francesca Favaro **Location: ENGR 285**	**2B** Blockchain Chair: Younghee Park **Location: SU 4A**	**3B** Next-Generation Diagnostics Chair: Miri VanHoven **Location: ENGR 345**

12:00–12:15 pm — Break

Lunch Keynote & WiE Roundtable Discussions

12:15–1:30 pm
Location: Ballroom A/B/C

Passion and Purpose: Driving Your Future Forward
Sandra L. Rivera, Senior Vice President and General Manager, Network Platforms Group, Intel

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1:30–2:00 pm — Break

Concurrent Session C 2:00–3:00 pm	**1C** Smart Cities Chair: Mahima Agumbe Suresh **Location: ENGR 341**	**2C** Internet of Things Chair: Dahyun Oh **Location: ENGR 337**	**3C** Flexible Electronics and Wearable Devices Chair: Lile He **Location: ENGR 345**

3:00–3:15 pm — Break

Engineering Career Panels

Concurrent Session D 3:15–4:45 pm	**I** Software and Information Technology Chair: Magdalini Eirinaki **Location: SU Theatre**	**II** Electronics and Semiconductor Equipment Chair: Jinny Rhee **Location: ENGR 285**

4:45–5:00 pm — Break

5:00–7:00 pm
**Location: Ballroom C
& Ballroom Foyer**

WiE Innovation Showcase & Networking Reception

Professional Development

4 Better Living	5 Your Career Paths	6 Career Planning
4A Tech For Good Chair: Ayca Erdogan **Location: SU 1A**	**5A** Design Your Future Presenter: Anita Manuel **Location: ENGR 343**	**6A** Securing Future Jobs Chair: Catherine Voss Plaxton **Location: SU 2A**
4B Machine Learning Systems Chairs: Hyeran Jeon, Birsen Sirkeci **Location: SU Theater**	**5B** Make the Most of Professional Mentoring Chair: Kelly Masegian **Location: SU 1B**	**6B** What Employers are Looking For? Chair: Andrea Schwartz Boone **Location: ENGR 343**
4C Augmented/Virtual Reality Chair: Valerie Carr **Location: SU 1B**	**5C** Develop Your Digital Story Chair: Catherine Voss Plaxton **Location: SU 2A**	**6C** Career Stories and Strategies Chair: Sheryl Ehrman **Location: SU 4A**

III Biomedical	IV Building, Infrastructure, and the Environment
Chair: Melanie McNeil **Location: SU 1A**	Chair: Nicole Okamoto **Location: SU 4B**

Track 1: Better Environment

1C: Smart Cities

Session Chair
Mahima Agumbe Suresh, Assistant Professor, Computer Engineering, SJSU

Location
ENGR 341

Technological advancements have equipped us with capabilities to connect and automate better than ever before, which open exciting new opportunities for Smart Cities. However, the adoption of these technologies come with unique challenges. In this session, we will learn about how the cities of San Jose and Oakland leverage the latest technology and overcome obstacles, and how important it is to manage curbs, an important component of Smart Cities.

San Jose's Vision to be a Smart City

Denzil Eden
Technology Strategist
City of San Jose-
Mayor's Office of
Technology & Innovation

Denzil is a San Jose native with a passion for disrupting stagnant industries through the use of technology. She last worked as a software engineer at Yammer (secretly, a Microsoft company). Before that, Denzil tackled the roles of PM at Power-Point and an adjunct lecturer of Computer Science at Foothill Community College and San Francisco State University. Her interests include crowdsourcing community initiatives, leveraging data to find innovative solutions to long-standing challenges, and creating solutions to help users increase productivity while building their digital footprint.

In her spare time, Denzil enjoys playing the piano and authoring op-eds and fiction while sipping green tea. Denzil holds a MBA from Harvard Business School, and a BS & MS in computer science from MIT.

Resilient Oakland

Alexandria McBride
Chief Resilience Officer
City of Oakland

Alexandria McBride is the Chief Resilience Officer (CRO) for the City Of Oakland. In her role, she joins a network of CRO's in the 100 Resilient Cities initiative tackling local urban resilience challenges. Prior to this role, Alexandria was the Director of Environment & Sustainability at ITI, a Washington, DC-based trade association where she advocated energy and sustainability policy for tech companies. Alexandria has also held leadership roles at the Tishman Environment and Design Center, The Engine Room, Groundswell and ExxonMobil Environmental Services. Alexandria has a B.S. in Civil Engineering from Howard University and an M.S. in Environmental Policy and Sustainability Management from the Milano School of International Affairs, Management and Urban Policy.

The Future of Mobility at the Curb

Melissa Ruhl
Planner
Arup

Melissa Ruhl is a planner for Arup in San Francisco where she manages projects on transportation innovation. Partnering with cities and transit agencies, Melissa helps communities plan for tomorrow while improving quality of life today. She has published a number of articles on future mobility and recently co-authored Autonomous Vehicles: A Horizon Initiative Perspective Paper on behalf of the San Francisco Metropolitan Transportation Commission. She regularly speaks in both California and nationally on autonomous vehicles and the future of cities. In June 2018, the Northern California American Planning Association granted her the Special Recognition Award – Emerging Planner. Melissa earned a Master of Urban Planning from San Jose State University and a Master of Arts in History from the University of Oregon.

Track 2: Increasing Productivity

2C: Internet of Things

Session Chair
Dahyun Oh, Assistant Professor, Materials Engineering, SJSU

Location
ENGR 337

The Internet of Things (IoT) is expected to dramatically change the pattern of everyday life in a smart way for a wide range of applications. These include home appliances, healthcare, transportation, and urban infrastructure, which nearly doubles the IoT market in the near future, 2021. Based on the easy network between electronic devices and human life, the development of IoT platform will be accelerated along with breakthroughs in sensors, machine learning, and data management. Silicon Valley is leading the advancement of key technologies for IoT development. This session introduces the future of IoT and related product development in Silicon Valley.

Future of IoT

Woosuk Chang
Head of Technology
Panasonic Ventures

Woosuk Chang is working on creating new business with new technology.

It is helping to set the direction of the technology by analyzing the technical trends that will appear in the future. He is responsible for finding and mentoring startups, building a corporation partner network and evaluating new technologies and businesses. Woosuk leads a pilot project that evaluates the compatibility of technologies with new businesses. He also participates in hands-on coding.

Level up! How IoT is Enhancing Our Lives

Jenifer Piccioni
Manager, Product Management
Cisco Systems

Jenifer Piccioni is a seasoned product management leader with 20 years of experience in the high-tech industry. With a career experience spanning various technologies such as voice, video, and security, she has guided the direction of product strategy for IoT at Cisco from concept to market.

Jenifer is an advocate for women in technology, dedicating time to mentoring and supporting women in this field. Jenifer is a proud graduate of San Jose State University.

Building Emotional Connections & Human Resilience

Mirjana Spasojevic
VP, Head of Immersive Experiences Lab
HP Inc

Mirjana Spasojevic heads the Immersive Experiences Lab at HP Labs which focuses on people and practices in order to craft the best experiences with future HP products and technologies. This entrepreneurial team of engineers, designers, and researchers address the areas of blended reality and UI/UX for new devices, applications and services.

Previously, Mirjana co-founded educational startup Kindoma, served as Director of Exploratory Research at the Nokia Research Center, Silicon Valley and led research activities and technical teams at Harman, HP, Yahoo and Transarc.

Mirjana is a recognized expert in HCI and Ubicomp fields and has a PhD in Computer Science from Penn State University. In 2017 she was awarded Women Worth Watching in STEM Award by the Profiles in Diversity Journal.

Track 3: Improving Health

3C: Flexible Electronics and Wearable Devices

Session Chair
Lili He, Professor, Electrical Engineering, SJSU

Location
ENGR 345

Flexible and wearable electronics are attracting wide attention due to their enormous applications in various technological areas: flexible displays, flexible solar cells, wearable skin-like pressure sensors, and conformable RFID tags and more. Flexible/wearable electronics have generated great impact in today's economy and have brought unbelievable convenience in our daily lives. It is no doubt that they will be the most important area of future electronics. In this session, we invite three Bay Area experts/leaders working in this exciting area to present recent developments in flexible/wearable electronics and share their personal experience and contributions to this industry.

Designing Health for Technology: the User Study Perspective

Caroline Currie
Manager, Health Data Acquisition
Apple Inc.

Caroline Currie is the manager of health data acquisition on the Health Sensing Software team at Apple. She has over 10 years of experience in program management and process development in a variety of health research, engineering, and clinical settings. She spent her early days at Apple developing guidelines and best practices for designing and conducting engineering health studies, and since then, she has managed the data collection strategy for many health-related Apple Watch features. Before Apple, Caroline's work focused in sports medicine, childhood obesity research, and health behavior change methodology, driven by her passion for improving overall wellness through technology innovation.

Wearable Devices: Expanding What's Possible

Tracy Giest
Manager of R&D Operations
Fitbit

As the Manager of R&D Operations at Fitbit, Tracy Giest leads Fitbit's Human Research Lab and the Research's program management team. Giest's fascination with human movement and physiology led her to pursue a Ph.D. at the Georgia Institute of Technology followed by a post-doc investigating wearable robotics. Her research has focused on the intersection of neurological control and biomechanics as it relates to human walking and running, amputee locomotion, and stroke rehabilitation. As a former middle school teacher with Teach for America and industrial biomechanics consultant for one of the largest railroad companies in the U.S., Giest has a unique blend of professional experience that has led her to her current leadership role at Fitbit.

Design Considerations & Trade-Offs When Designing Wearable Products

Meeta Roy
Head of Operations
Bose

Meeta Roy is the Head of Operations at Bose where she is responsible for defining and implementing strategic objectives for Bose Frames, and ensuring the team is firing on all cylinders to execute on goals. Prior to Bose, Meeta was the Chief of Staff at Jawbone where she was a strategic partner to the executive staff and senior leadership in driving operational excellence, innovation, and program management.

Meeta is also the founder of MERORA, an apparel and accessories brand reclaiming the word geek. She created this line to encourage a culture of innovation, advocacy, and activism in designs that range from celebrating women in tech, to advocating for equality and rising up together, to promoting inclusion and diversity in STEM fields.

She received her BSEE from SJSU in 2003.

C

2:00–3:00 PM

Emerging Technologies

Track 4: Better Living

4C: Augmented/Virtual Reality

Session Chair
Valerie Carr, Assistant Professor, Psychology, SJSU

Location
SU 1B

Augmented and virtual reality (AR/VR) have the potential to change numerous aspects of our daily lives, ranging from the manner in which we learn, to how we conduct business, practice medicine, and entertain ourselves. In this session, you'll discover how university researchers, health care providers, and tech companies are combining the real and virtual worlds to create exciting new experiences. Learn about the technology involved, its application to a wide range of disciplines, and potential career paths for students interested in AR/VR. Join us as our speakers share their journeys and discuss the promise and challenges of AR/VR.

Science, Art, and Virtual Reality

Talia Lyric Weiss
Lab Manager /
Head of Medical VR
Virtual Human
Interaction Lab
Stanford University

Talia received her Bachelor's degree from Dartmouth College, where she studied Neuroscience and Digital Art. Interested in more deeply exploring the intersection of these two fields, she went on to pursue a Master's degree in Biomedical Visualization from the University of Illinois at Chicago. While in graduate school she discovered a passion for developing virtual reality applications for medical education and simulation. Talia has experience designing, programming, 3D modeling, and animating for VR and AR applications. As the lab manager of VHIL, she facilitates research projects, coordinates lab outreach, and maintains the lab's software and hardware. Talia also directs the lab's medical VR projects. vhil.stanford.edu | www.talialyric.com

This is Your Brain: VR in Neurosurgery

Malie Collins
Program Manager
of the Stanford
Neurosurgical Simulation
and VR Center
Stanford Health Care

Joining Stanford in 2017, Malie Collins leads the first medical 3D VR program in the greater Pacific Northwest, including the first ever VR-enabled clinic for functional neurosurgery in the United States. She has brought patient-specific, virtual models to over 800 patients across the clinic and operating room to-date. She continues to develop this technology as a patient engagement and surgical planning tool for specialties such as skull base and cerebrovascular neurosurgery. Other interests include researching the impact of VR on patient education and comfort, and the application of VR and immersive technologies in medical school curricula. Malie earned her B.S. in Biomedical Engineering from USC and her M.S. in Medical Sciences from the Boston University School of Medicine.

Inventing the Future of AR/VR

Dharani Govindan
Senior Technical
Program Manager
Google

Dharani Govindan is a Senior Technical Program Manager at Google. She was the first Program Manager for Augmented and Virtual Reality products called Daydream. Currently she is working on next generation wearables and technologies. In 14 years of working at Google, she has worked on Chrome browser, Chromebooks and the first Mobile apps such as Google Mobile Maps, YouTube and Search. She received her BS in Electronics and Communication in India and MS in Computer Science in San Jose State University. In her free time, she spends it with her family in the Bay Area. She also enjoys adventuring to different places and eating variety of food.

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**Professional
Development**

Track 5:
Your Career Paths

**5C: Develop Your
Digital Story**

Chair
Catherine Voss Plaxton,
Director, Career Center,
SJSU

Location
SU 2A

With so many platforms inviting you to establish a professional presence, do you wonder how to stand out in a digital world? Just like you consider how to dress for a job interview, you can craft a compelling digital story. In this hands-on workshop, you will learn how to share your unique strengths and interests through channels that resonate with those most likely to appreciate your talent.

Tina L. Simms
Operations Manager
Northern California Joint
Pole Association

Tina is currently the Operations Manager for the 116-year-old Northern California Joint Pole Association, administering to 50 Northern California joint utility member companies and organizations. Tina Simms is a retired Senior Network Process & Quality Manager for AT&T's Network Operation Construction and Engineering West Region. Tina's AT&T background

also includes Outside Plant Design Engineering (Project Pronto-DSL, Project Light-speed-Uverse) as well as AT&T's Fiber to the Building Project VIP.

Tina holds a Masters in Telecommunications Management from Golden Gate University. She is a highly sought-after part-time instructor for the University of Phoenix's Bay Campus and is also a 2013 Distinguished Faculty of the Year Awardee, as voted by the students. Tina has been a California MESA AT&T industry volunteer since 1997. She has supported and guided MESA statewide and local funding efforts toward specific AT&T funding and hiring resources (AT&T Aspire, AT&T Technology Development Program). Tina is a sought after Leadership and Diversity presenter for Northern California and Bay Area STEM college and high school events. She is also the recipient of President Obama's Service Award. Tina Simms truly lives for the opportunity to assist others with tapping into their full individual potential.

Track 6:
Career Planning

**6C: Career Stories and
Strategies**

Chair
Sheryl Ehrman, Don Beall Dean, Charles W. Davidson College of Engineering, San Jose State University

Location
SU 4A

This session will provide conference attendees with an opportunity to gain professional and personal insights from three San Jose State University alumnae who are not only highly accomplished in their respective fields of endeavor, but also passionate in their advocacy of women as leaders and innovators in technology careers. Each of our panelists will share personal and professional challenges faced, lessons learned, and successes achieved during their college years and their careers. They will also reveal what employers are looking for and how to land that first job as a college graduate.

Erica Lockheimer
Sr. Director, Software
Engineering–
LinkedIn Learning
Women In Tech Lead–
LinkedIn WIT
Executive Team
LinkedIn

Erica Lockheimer has been at LinkedIn for over 8 years and most recently held the role of Sr. Director of Engineering heading the Growth Engineering team, where her focus was on increasing growth in new members and deepening engagement with members across LinkedIn's products. She started the Growth Team from the ground up to now a high performing 120-person team. In January 2018, she moved on to her next play at LinkedIn and is now the head of Engineering for the LinkedIn Learning team, formerly known as Lynda.com. She is also responsible for LinkedIn's Women In Tech (WIT) initiative that is focused on empowering women in technical roles within the company. Prior to LinkedIn, she worked at Good Technology as Director of Server Engineering to securely manage and synchronize e-mail and calendar data between Exchange and mobile devices.

She loves the challenge of starting with something nascent and carving out the right strategy, hiring the best people, and plotting a course to drive results. In 2014 and 2015, Erica was also voted amongst the top 22 women engineers in the world by Business Insider. Erica is a San Francisco Bay Area native, has 2 kids, loves to run and is a graduate from San Jose State University with a B.S. in Computer Engineering

Meagan Pi
Vice President
Google

Identifying as a "modern geek," Meagan Pi leads gTech Velocity, an organization that is working to activate, accelerate, and scale Google's biggest bets by being trusted advisors to internal and external partners. Meagan started her career at Google in 2002 as an engineer before becoming a manager and leader in Google's technical account management teams. As a strong advocate for her team and their customers, Meagan believes investing in trust-based relationships and diverse team leads to the greatest success.

Outside of Google, Meagan enjoys running, skiing, and spending time with her two kids. Fun fact: Prior to University, Meagan had a childish and fun stint as a flight attendant!

Sonar Thekdi
Vice President of
Business Operations
Internet of Things
Business Group
Cisco

Sonar Thekdi is the Vice President of Business Operations for Cisco's Internet of Things Business Group. Sonar leads the business intelligence and analytics, strategic planning, program and release management, and technical documentation teams and is responsible for driving the organization's business planning and strategic direction setting, operational framework and governance, quality and execution excellence to scale the business with speed and deliver aggressive growth. Sonar is also chartered to drive an inclusive, fun and innovative culture across the organization.

Prior to her current role, Sonar led Operations for the multi-billion dollar Data Center business for Cisco. Sonar has also held a variety of engineering and operations roles in the switching and wireless business groups during her seventeen years at Cisco and has been instrumental in bringing industry-leading products to the market. From 2010-2011, Sonar was Cisco's global engineering talent strategy director where she was responsible for establishing an inclusive culture for recruiting, retaining, and developing the best talent.

Sonar is passionate about mentoring and sponsoring women in tech. She actively engages in various mentoring activities across Cisco and her broader community.

Sonar holds a Bachelor of Science Degree in Computer Engineering from San Jose State University.

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Panel I: Software and Information Technology

Chair
Magdalini Eirinaki
Professor, Computer
Engineering, SJSU

Location
SU Theater

Panelists

Helen Holder
Distinguished Technologist
HP

Distinguished Technologist
and leader of the Nanolab
in HP Labs, responsible
for printed electronics, IOT
tracking, display technolo-
gies, voice interfaces, and
materials research.

Narae Kim
Lead Software Engineer
Salesforce

I have been with Sales-
force for almost 5 years
now. I work both as a data
scientist and as a software
engineer in various Sales-
force Einstein products like
lead scoring, forecasting,
and engagement scoring, all
designed to help improve
sales reps' efficiency and
better execute on sales
quota on predictive revenue
forecasting. I've made
gradual transition into a
data scientist from a regular
software engineer role little
over 3 years ago. In those

years, I had gain experienc-
es ranging from building
the data pipeline, managing
data product life cycle and
designing and implementing
scalable predictive models.

I graduated from Rice Uni-
versity in Houston, TX with
B.S. in Computer Science
and Master's degree with
specialization in Machine
Learning.

Yanbing Li
Senior VP / General
Manager
VMware

Dr. Yanbing Li is a globally
minded high tech executive
with extensive leadership
experience in the US and
in China. She is the Senior
Vice President and General
Manager for the Storage
and Availability Business
Unit (SABU) at VMware
and led the BU to become
the fast growing business
at VMware and a market
leader in the past 2 years.

Yanbing holds a Ph.D.
degree from Princeton Uni-
versity, a Master's degree
from Cornell University, and
a BS degree from Tsinghua
University (Beijing), in
Electrical Engineering and
Computer Engineering. She
was inducted to the Women
in Technology International
(WITI) Hall of Fame in 2018.

Marily Nika
Product Manager
Google

Based in San Francisco,
Marily Nika works for Goo-
gle as a Product Manager.
Marily holds a Ph.D in Com-
puter Science from Imperial
College London and is also
a part-time Teaching Fellow
at Harvard Business School.
Marily has delivered three
TEDx talks and has received
international recognition —
including the Woman of the
Year in tech 2018 Award
as well as the Women in
Science and Engineering
(WISE) Influence Award in
2015, for empowering and
mentoring the Women in
tech community by having
founded 3 women in tech
groups, and for launching
a mentorship app. You can
find Marily on Twitter @
marilynika.

Sonar Thekdi
Vice President of
Business Operations
Internet of Things
Business Group
Cisco

Sonar Thekdi is the Vice
President of Business Op-
erations for Cisco's Internet
of Things Business Group.
Sonar leads the business
intelligence and analytics,
strategic planning, program
and release management,
and technical documenta-
tion teams and is responsi-
ble for driving the organiza-
tion's business planning and
strategic direction setting,

operational framework and
governance, quality and ex-
ecution excellence to scale
the business with speed and
deliver aggressive growth.
Sonar is also chartered to
drive an inclusive, fun and
innovative culture across
the organization.

Prior to her current role,
Sonar led Operations for
the multi-billion dollar
Data Center business for
Cisco. Sonar has also held
a variety of engineering
and operations roles in
the switching and wireless
business groups during her
seventeen years at Cisco
and has been instrumental
in bringing industry-leading
products to the market.
From 2010- 2011, Sonar
was Cisco's global engineer-
ing talent strategy director
where she was responsible
for establishing an inclusive
culture for recruiting, retain-
ing, and developing the best
talent.

Sonar is passionate about
mentoring and sponsoring
women in tech. She actively
engages in various mento-
ring activities across Cisco
and her broader community.

Sonar holds a Bachelor of
Science Degree in Computer
Engineering from San Jose
State University.

Panel II: Electronics and Semiconductor Equipment

Chair
Jinny Rhee
Associate Dean, College of Engineering, SJSU

Location
ENGR 285

Panelists

Rose Castanares
VP of Business Management
TSMC

Rose is proud to lead a team of engineers (50% women!!) who are Sales Business Managers and Technical Managers. She joined TSMC in 1998 and is presently responsible for account management and sales for several system and fabless customers. Before her promotion to TSMC Vice President in 2015, she served as Senior Director in TSMC North Americas San Jose office responsible for an account team and major, mid-size and emerging customers; in Austin as Central Region Director for Texas where she managed regional sales and support; and as Deputy Director in San Diego responsible for several customers in the region.

Prior to TSMC she was in account management with Chartered Semiconductor and National Semiconductor. She began her technology career as a manufacturing engineer with GTE and Siliconix.

Rose holds a Bachelor of Science degree from the University of Illinois at Urbana-Champaign, Department of Materials Science and Engineering.

Rahima Mohammed
Senior Principal Engineer
Intel

Rahima is a Senior Principal Engineer and leads the Customer Delight Office of Performance, Power and Competitive Analysis team of Intel Architecture Graphics Software team. Prior to this, she served as a Data Center Customer Solutions Technologist in the Manufacturing Validation Performance (MVP) team. Rahima led the data mining efforts on customer returned parts. She has been with Intel over 20 years after attending Graduate school at Yale. She also chairs various technical steering committees and serves on Industry advisory boards. She demonstrates consistent leadership in IP creation, and has published 100+ papers in Intel internal and external conferences and filed 5 patents. She is a diversity champion, and winner of the 2015 SWE PRISM award.

Lena Nicolaides
VP & General Manager
KLA

Dr. Lena Nicolaides, is the Vice President and General Manager of Laser Scanning and Swift products at KLA. She is responsible for P&L management, product development, customer relationships and international collaborations on semiconductor equipment.

Lena has held various technology and business leadership positions at KLA, including general manager of the Implant Metrology Division and chief technology supply executive where she was responsible for supplier business development. Prior to assuming her current role, Lena was vice president and general manager for macro inspection and SensArray products where she led high-performing teams to achieve profitable growth. Before joining KLA-Tencor, Lena held senior marketing and engineering roles at Therma-Wave Inc and PTD Inc.

Lena is the author of more than 50 technical papers, and holds more than 30 US patents. She is an active mentor for young professionals. Lena received her doctorate in Mechanical Engineering, in the field of photothermal science, from the University of Toronto.

Ellie Yieh
Corporate VP
Applied Materials

Ellie Yieh is corporate vice president for Advanced Product Technology Development at Applied Materials, Inc. She is responsible for the technical excellence of the company's state-of-the-art Maydan Technology Center R&D lab and works closely with customers and business units to drive advanced product development and technology roadmaps. She is also a board member for Applied Ventures, LLC, the company's venture capital fund. Yieh joined Applied in 1989 as a process engineer in the Chemical Vapor Deposition (CVD) group and has headed several successful product developments over her 20-plus years with the company. She has held a variety of positions including product unit head of the Low k Dielectric Division and general manager of the Gap Fill, Etch, and Dielectric System and Modules business units. She has led her teams to deliver significant profitability and market share growth, build strong customer relationships, and develop industry standard technologies.

Yieh received a bachelor of science degree in chemical engineering from the University of California, Berkeley and holds more than 95 semiconductor engineering patents. In 2016, she was inducted into the Women in Technology International (WITI) Hall of Fame for outstanding contributions to scientific and technological communities that improve society and business, and for her commitment to supporting and mentoring women and girls worldwide. She was also named one of the 2015 "Top 50 Most Powerful Women in Technology" by the National Diversity Council, and a 2010 "Women Worth Watching" by Profiles in Diversity Journal magazine.

Panel III: Biomedical

Chair
Melanie McNeil
Professor, Chemical Engineering, SJSU

Location
SU 1A

Panelists

Hoang Nhan
Product Scientist
23andMe

Hoang received her bachelor's degrees in Neurobiology and English Literature from University of Washington. Fascinated by the brain, she went on to get a PhD in Neurosciences from University of California, San Diego, where she spent a lot of time searching for new types of brain cells (and she found one!). After her PhD, she completed a postdoctoral fellowship in the field of Alzheimer's disease, researching the genetic basis of that devastating neurodegenerative condition. Prior to joining 23andMe, Hoang was a curation scientist at Illumina and an NGS scientist at Thermo Fisher. Currently, she is a Product Scientist at 23andMe, responsible for developing genetic health reports. She has made a switch from studying the brain to studying genetics because DNA is both intriguing and powerful. Our genes control everything, including our brain!

Denise Robello
Manager of Planning and Scheduling
Bayer U.S. LLC

Denise Robello grew up in Redwood City, CA. She graduated from SJSU in 1994 with a Chemical Engineering B.S. Degree. She first worked as environmental engineer for a few years during which time she passed the EIT. When the recession hit, she switched to contracting in different pharmaceutical manufacturing plants, worked as an electrical engineer at UL, and eventually came to work at Bayer in Berkeley. She's been laid off more than once, and switched industries multiple times. Denise says: My career can be characterized as adapting to change, taking opportunities to learn, working hard, and not being afraid to take risks. Life isn't just career, it's also about balance. I have two teenagers, and a cat. I love being a mom, and I love to travel, to run, to run when travelling, and textiles.

Carol Schembri
Section Manager, Agilent Research Laboratories
Agilent Technologies

Carol Schembri manages an outstanding research team of engineers at Agilent Research Laboratories and leads many multi-disciplined projects involving engineers and scientists. Over her career, she has held a variety of research and development roles including individual contributor, manager, director and vice president. She has created innovative products and led teams at large companies and start-ups including Varian, LifeScan (Johnson & Johnson), Abaxis, eNeura, Applied BioSystems, Hewlett-Packard and Agilent Technologies. She holds a MS in Engineering Management from Stanford and a BS in Mechanical Engineering from Cornell.

Allison Schulkins
Chief Operating Officer
Single Cell Technology, Inc.

Allison serves as COO at Single Cell Technology, where she has worked for 6 years. As a research associate, she made several breakthroughs and optimized critical processes to bring SCT's process to the marketplace. As a business development manager, she secured and managed projects for large pharmaceutical customers. Allison has presented materials at conferences and advises in marketing strategy for SCT's biopharma customers. She specializes in project management, business development, and contract negotiation. She has her B.S. in Biochemistry from University of California, Santa Barbara and M.S. in Chemical Engineering from San Jose State.

Panel IV: Building, Infrastructure, and the Environment

Chair
Nicole Okamoto
Department Chair
Mechanical Engineering, SJSU

Location
SU 4B

Panelists

Ellen Greenberg
Deputy Director for Sustainability
Caltrans

Governor Jerry Brown appointed Ellen Greenberg in 2016 as the Caltrans Deputy Director for Sustainability, a position created to lead the department's efforts in developing and implementing initiatives to align with California's goals on sustainability. Prior to joining Caltrans, Ellen was a Principal at Arup, working in San Francisco and London on major planning and infrastructure projects. Her career includes over three decades of work in the public, private and non-profit sectors. Ellen holds degrees in Geography, City and Regional Planning, and Transportation Engineering from UC Berkeley.

Mary Hoang
Principal
HydroScience Engineers, Inc.

Mary Hoang is a Principal and Vice President with HydroScience Engineers, a civil and environmental engineering firm specializing in water related projects. Mary has a BS in civil engineering and Master's in Public Administration from SJSU. Mary was the Operations Manager for potable and recycled water for the City of San Jose and Director of Water Quality for San Jose Water Company, one of the largest urban water retailers in the US. She has over 28 years of experience, primarily in water utility management and water resources. She has worked for both public and private water utilities, and her experience ranges from engineering capital and development projects to operating and maintaining both potable and recycled water systems.

Lily Lim-Tsao, PE
Acting Deputy Director of Transportation Safety Operations and Parking City of San Jose

Lily Lim-Tsao is a professional civil engineer and a 26-year transportation industry expert focused on moving people and traffic efficiently and safely for the City of San Jose. Lily leads San Jose's Traffic Management Division and is credited for many of the City's innovative traffic technology deployments that include a state-of-the-art-traffic management center, real time traffic monitoring capability and sensor rich technologies that enable deep data utilizations. Lily's progressive traffic management strategies has made San Jose the innovation incubator for traffic sensor and management technologies. Lily is actively engaged in the City's Autonomous Vehicle Pilot, Smart City solutions, and emerging technologies. She is a graduate of San Jose State University and a long-time supporter and mentor of SJSU's engineering students. She has a deep passion for developing staff and has served as a mentor for the City of San Jose's Department of Transportation for over 15 years.

Belen Verduzco
Project Superintendent
Turner Construction

Belen Verduzco joined Turner in 2003 after graduating from Santa Clara University with a BS in Civil Engineering. During her 15 years with Turner, she has worked on numerous exciting projects including Stanford Bing Concert Hall, Stanford Graduate School of Business, Safeway Corporate Headquarters, and various projects for Intel. Belen played a key role in delivering the Levi's® Stadium ahead of schedule and also served as superintendent at Sacramento Entertainment and Sports Center.   Belen is currently working on a Bio Med campus in south San Francisco.
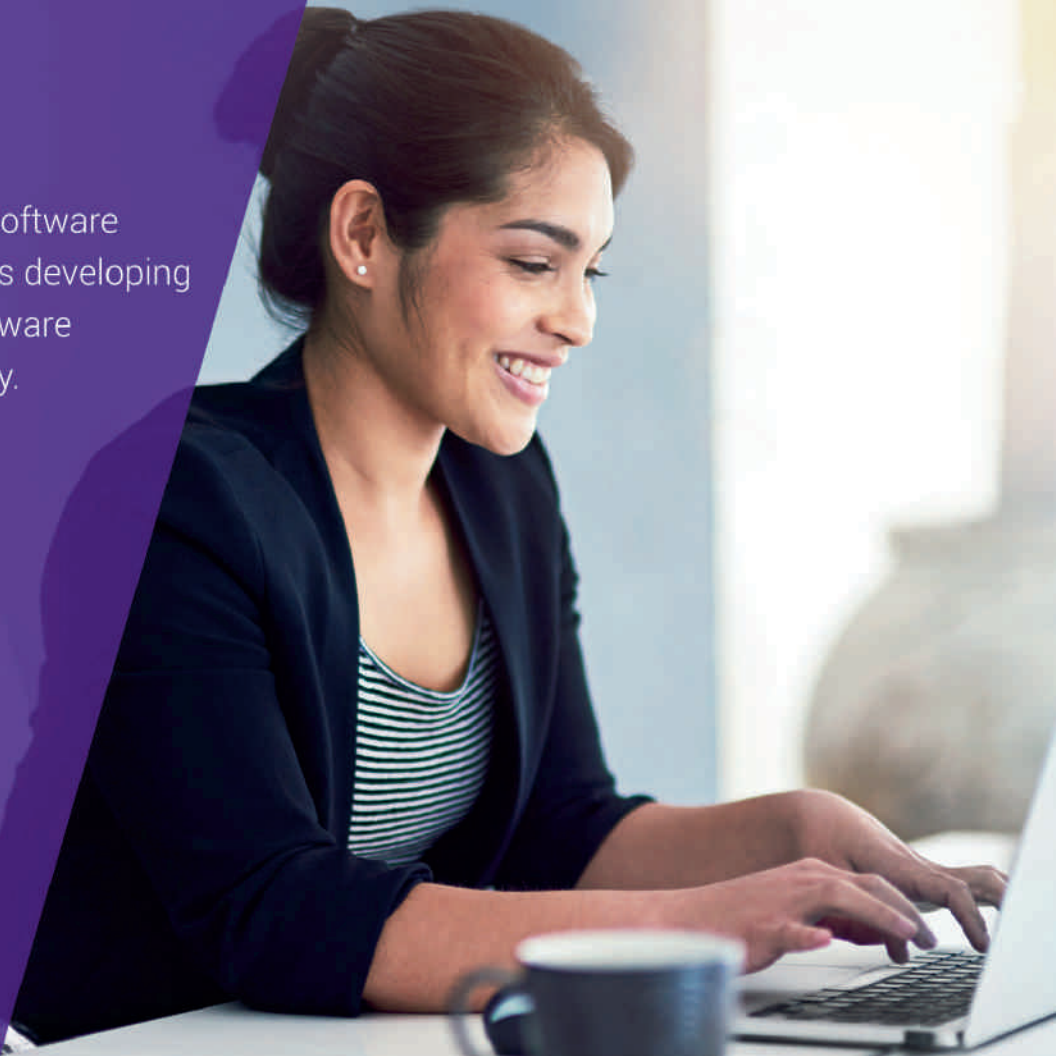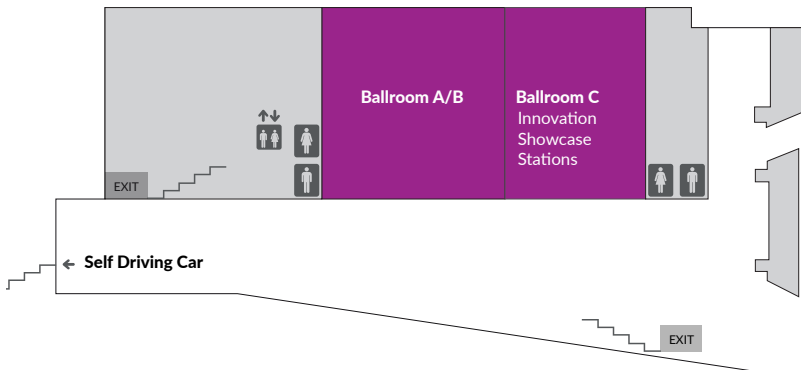
WiE Innovation Showcase & Networking Reception

5:00–7:00 PM
Connect with other women, peers, potential future co-workers, and mentors, while enjoying good food and music at Silicon Valley's best conference for women in engineering

Ballroom & Foyer (Student Union 2nd Floor)

Ballroom A/B

Ballroom C
Innovation Showcase Stations

EXIT

← **Self Driving Car**

EXIT

EXIT

semi

SJSU SAN JOSÉ STATE UNIVERSITY

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intel

CISCO

hp

KLA

NETGEAR

APPLIED MATERIALS

IBM

EXIT

Agilent

Women at Agilent help to change the world by delivering trusted answers in food safety, water and air purity, research, fighting cancer – improving lives. Together, they make Agilent a great place to work.

Agilent is a global leader in life science, diagnostics and analytical laboratory technologies. Leveraging more than 50 years of expertise, we create instruments, software, services and solutions that provide trusted answers to our customers' most critical questions. We are passionate about helping our customers solve their most ambitious scientific challenges, increase laboratory performance, and advance the quality of life.

Please stop by our booth for an invitation to a site tour of Agilent headquarters. You will meet the Agilent Team, learn about what we love most about our jobs, and how you can join our Agilent global family.

For more information visit www.agilent.com or www. agilent.com/go/careers.

APPLIED MATERIALS
make possible

Applied Materials is the leader in materials engineering solutions used to produce virtually every new chip and advanced display in the world. Our expertise in modifying materials at atomic levels and on an industrial scale enables customers to transform possibilities into reality. In a Virtual Reality experience empowered by Samsung Oculus, take a glimpse inside the Maydan Technology Center, our state of the art facility dedicated

to advanced chip manufacturing. At Applied, our innovations make possible the technology shaping the future.

CISCO

Cisco Kinetic IoT Platform unlocks the value of IoT data, by helping our customers securely connect their IoT devices, then extract, compute and move their data from connected devices to drive significant business outcomes.

Cisco Kinetic complements our strength in networking and security enabling compelling IoT solutions across many industries and use cases.

This demo showcases the different aspects of Kinetic IoT platform: Connect, Extract, Compute and Move data.

Google

The Google booth will be hosting a live demo of the Google Assistant. Google will be demonstrating its pioneering interpreter mode with real time, 2-way translation. The exhibit will present an overview of the Google Assistant technology and home automation capabilities.

With your Google Assistant, you can enjoy entertainment, find answers, manage everyday tasks, and easily control smart home devices -- just by using your voice. Listen to your favorite song, find a delicious brownie recipe, or check your commute to work. Or, prepare for movie night by dimming the lights and streaming the latest blockbuster. The more you use it, the more useful it gets. It's your own personal Google, always ready to
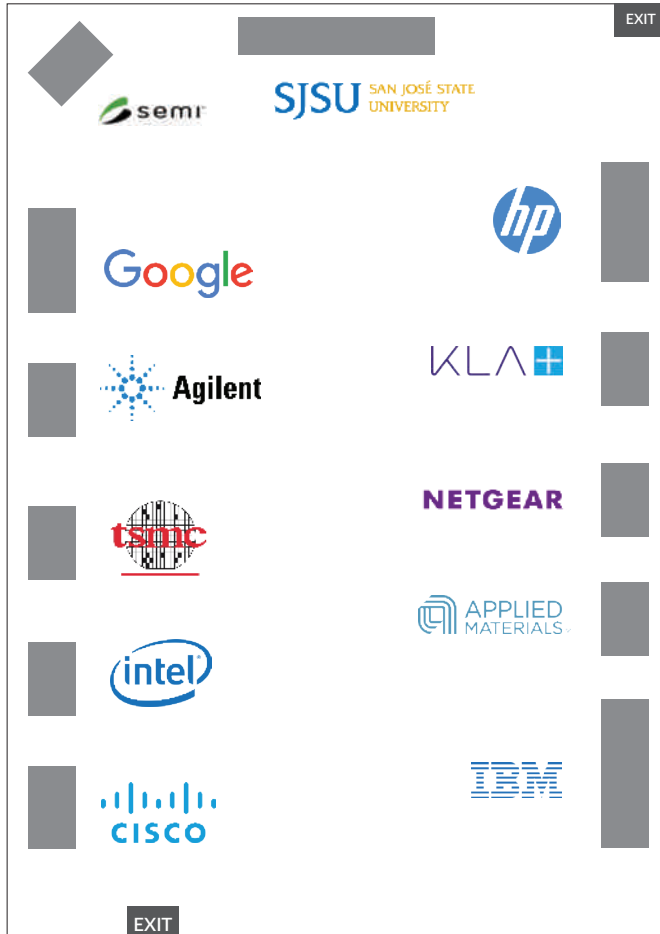
help. Your Google Assistant can also help in situations where you may not speak the local language. For example, the Google Assistant interpreter mode can translate up to 27 languages. It uses machine learning to make context aware translations. You may have heard of it -- this technology was debuted at CES 2019. It will help small businesses and hotels everywhere to communicate and build relationships with people across the globe. The demonstration of the Google Assistant technology will give insight into how voice assistant is progressing as the latest cutting-edge technology trend.

HP

To help your business get ready for a future era of digital manufacturing, HP is working hard to enable new materials innovations that break down some of the traditional barriers to 3D printing adoption. Produce functional parts in full color, black or white—with voxel control —in a fraction of the time. The cost-effective HP 3D printer tailored for small/medium-sized product development teams, design firms, and universities.

IBM

Detecting Backdoor Attacks on Deep Neural Networks by Activation Clustering
Dr. Nathalie Baracaldo, Research Staff Member, AI Platforms, IBM Research

While machine learning (ML) models are being increasingly trusted to make decisions in different and varying areas, the safety of systems using such models has become an increasing concern. In particular, ML models are often trained on data from potentially untrustworthy sources, providing adversaries with the opportunity to manipulate them. In this demo, I will demonstrate how poisoning attacks work and showcase a novel and very effective approach to backdoor detection and removal for neural networks.

Can Blockchain enhance Loyalty Programs?
Dr. Dulce Ponceleon, Content Protection Competency Center, IBM Research

Loyalty programs are structured marketing strategies designed by merchants to encourage customers to continue to shop at their businesses associated with each program. We present a decentralized Loyalty Program that enables different entities with their own program to interact through a broker service on the blockchain. This enables new forms of reward point exchanges.

Natural Language Query (NLQ) demo
Dr. Fatma Ozcan, Principal Research Staff Member-Big Data, IBM Research

Natural Language Interface to Database (NLIDB) eliminates the need for an end user to use complex query languages like SQL by translating the input natural language statements to SQL automatically. In this demo, we will showcase a wide range of complex business intelligence queries against a financial dataset, which conforms to a combined FIBO and FRO ontologies. The users will be able to submit their queries and examine the resulting SQL queries that the system generates.

Knowledge Graph for Intellige
Nidhi Rajshree, Engineering Manager & Architect, Knowledge Graph, IBM Watson AI Platform

With the enormous amount of unstructured data available, it is important for customers to rapidly narrow down the search over a large corpus in a structured manner and find relevant information quickly. We propose a system to construct a minimally supervised knowledge graph which generates a query-based faceted structure for searching a document collection. Customers are able to narrow down search results by filtering and retrieve the most relevant document.

intel

Self-Driving Car
Intel & Mobileye's technology powers the "eyes" and "brains" in the majority of the autonomous test cars on roads today. The fleet will showcase Intel and Mobileye's full suite of safety-minded and economically scalable software, including surround-view computer vision, crowdsourced REM-based mapping and localization, several levels of sensor fusion, efficient, semantic-based artificial intelligence (AI) for driving policy (decision-making), and a formal safety layer. Our fleet will be used for development and validation providing a highly scalable and cost-effective L4/L5 platform.

Intel Drone Light Shows
Intel's drone light shows take the wonders of drone technology and transform them into an entirely new form of entertainment. With Intel® Drone Light Shows, brands or organizations have the power to brighten up the night sky and indoor spaces with a perfectly choreographed light show of hundreds, even thousands of drones—creating a stunning way to communicate.

KLA

At KLA, we develop and manufacture process-control and process-enabling solutions that accelerate tomorrow's electronic devices. As a global electronics company, we bring innovation and optimism together to solve complex technical challenges, so our customers can create the new products and experiences that have a positive impact in the world. We're optimists, energized by how technology can enrich the human experience. We're physicists, engineers, data scientists and problem solvers, all helping transform the world we live in. We're at the nexus of electron and photon optics, sensor technology and artificial intelligence. We collaborate with leading technology companies, moving seamlessly from silicon wafers to next-gen chips to revolutionary new devices.

Last year we invested over $600 million in R&D. That's a measure of our commitment to solving the most daunting technical challenges. From our ground-breaking mask inspection tool in 1975 that signaled the dawn of semiconductor process control, to today's broadband plasma technology that discovers defects at the speed of light, we like to arrive first.

Learn more about why KLA is a place for curiosity, intellectual challenges and industry transformation. Think big, drive progress and enjoy the journey.

NETGEAR

NETGEAR® Inc., the worldwide leader in home networking and smart home security products, is proud to be a sponsor of the 2019 Silicon Valley Women in Engineering Conference.

Our award winning Orbi WiFi Systems have been lauded for their innovative design and engineering. They have a unique, industry-first Tri-band architecture that extends both reliable WiFi coverage and maximum internet speed throughout your entire home.

Our powerful Nighthawk line of routers provide the latest innovations, such as our patented Fastlane3 technology, to increase WiFi coverage on all of your devices.

Our advanced Switches provide solutions to consumers, business, and service providers without the cost and complexity of big IT.

Our Nighthawk® 5G Mobile Hotspot is the world's first standards-based millimeter wave mobile 5G device, and this 5G mobile hotspot combines NETGEAR's continued leadership and expertise in mobile hotspot devices.

NETGEAR works tirelessly to engineer devices and software that deliver best-in-class performance, innovation, reliability and ease-of-use for our customers.

![SEMI logo]

Please stop by the SEMI Foundation table and register for your complimentary admission to SEMICON West! Bring your resume and enter to win an Amazon gift card when you stop by to ask us more about SEMI's new student membership, and sign up for the SEMI mentoring program.

SEMICON West is the premier microelectronics and semiconductor conference focusing on innovation, technology, and talent. The industry has thousands of open positions to fill and HR personnel from industry leading companies will be speaking to candidates and reviewing resumes at the show. In addition, students will be able to sign up for an industry mentor, take professional headshots, attend networking events, learn about innovative technology from experts, and much more. Don't miss your chance to connect to over 2,000+ employers in the microelectronics industry through SEMI's complimentary student programs. SEMI Foundation is a non-profit organization dedicated to education, career exploration, and workforce development. Don't miss your chance to connect to over 2,000+ employers in the microelectronics industry through SEMI's complimentary student programs. We are serious about connecting companies with university talent, make sure to stop by our table and learn more! Visit www.semifoundation.org to view information on all of our programs.

SJSU SAN JOSÉ STATE UNIVERSITY

Come experience VR and AR demos using the HTC Vive goggles (Virtual Reality) and Microsoft Hololens glasses (Augmented Reality) to get a sense of how these technologies are transforming the ways we learn, work, and play.

Discover the many cross-disciplinary opportunities in this explosive field and the steps you can take to immerse yourself in the field. If you have an interest in hardware or software development, AI, human factors and user interface, graphics, mechanics, optics, audio, kinesiology, psychology, or art and design, there's a place for you. Google, Facebook, Intel, Microsoft, Apple, and Amazon are just a few of the many companies actively recruiting for AR/VR positions. Come learn how you can help transform reality as we know it.

tsmc

TSMC is the world's largest dedicated semiconductor foundry, and more than half of its employees are women. In fact, the company has consistently employed women in a wide range of executive, management, and technical responsibilities since it opened its doors 32 years ago. TSMC is where you see people in action developing and sustaining technology leadership, manufacturing excellence, and customer collaboration. In TSMC, you are surrounded with talented people from all around the world. Please stop by our booth and meet our team to learn more about TSMC's comprehensive training programs and flexible career paths.

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Join us at July 9-11 at SEMICON West 2019 to connect with the microelectronics industry and get ready to jumpstart your career. At SEMICON West you can:

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- Meet with HR representatives hiring for entry-level positions.
- Take a tour of the expo floor and view the newest technologies in the industry.
- Hear directly from industry leading experts and so much more!

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SEMI FOUNDATION

Come visit SEMI's table for your complimentary admission to SEMICON West 2019 and more information on SEMI's university and mentoring programs.

semi

Committee Members

Feruza Amirkulova
Assistant Professor
Mechanical Engineering, SJSU

Dr. Feruza Amirkulova joined SJSU as an Assistant Professor of Mechanical Engineering in Fall 2018. She received her B.Sc. and M.Sc. in Mathematics, and Ph.D. in Techniques (Civil Engineering) from Samarkand State University in 1995 and 2000 correspondingly, and M.Sc. and Ph.D. degrees in Mechanical and Aerospace Engineering from Rutgers University in 2010 and 2014 respectively. She was a Postdoctoral Fellow in Physics and Astronomy Department at Vassar College from 2015 to 2016. She teaches Dynamic Systems Vibration and Control Course. Her area of research includes wave propagation and vibrations, multiple scattering, "invisibility" cloak, super-lenses, metamaterials, Willis materials, sound diffusers, high performance computing, fast recursive and iterative techniques, inverse design, non-convex optimization, and deep learning.

Valerie Carr
Assistant Professor
Psychology, SJSU

Valerie Carr is an Assistant Professor in the Department of Psychology at SJSU. As a cognitive neuroscientist, Valerie conducts interdisciplinary research involving the application of computer programming to creating experiments and analyzing data. She collaborated with faculty across several departments to help develop SJSU's new minor in Applied Computing for Behavioral and Social Sciences (ACBSS). This minor is designed to develop the programming skills of students in fields such as psychology and economics, equipping them to solve real-world problems in their chosen domains. Valerie currently teaches the first course in the ACBSS minor series, which covers the application of Python to current social science topics, as well as the use of programming in careers such as data analysis, user experience, and econometrics.

Winncy Du
Professor
Mechanical Engineering, SJSU

Dr. Winncy Du is the director of Robotics Lab at SJSU. She received her PhD, two MS, and BS degrees from Georgia Tech, West Virginia University, and Jilin University, respectively. She is the sole author of one sensor textbook and co-author of two sensor books. She has received many research grants and has published many journals and peer-reviewed conference papers.

Sheryl Ehrman
Don Beall Dean
Charles W. Davidson College of Engineering
San Jose State University

Dr. Sheryl Ehrman is the Don Beall Dean of the Charles W. Davidson College of Engineering at San Jose State University. She previously served as Keystone professor and chair of the Department of Chemical and Biomolecular Engineering, at the University of Maryland, College Park. Dr. Ehrman received a bachelor's in chemical engineering from U.C. Santa Barbara and went on to complete a doctoral degree in chemical engineering in the major field of aerosol science and technology and the minor field of atmospheric science at UCLA. She is a licensed professional engineer in the state of Maryland.

Dr. Ehrman served as a visiting scientist with the National Institute of Standards and Technology, in Maryland and as a National Science Foundation-sponsored post-doctoral fellow at the Paul. Scherrer Institute, in Switzerland. In 2006, she was named a Fulbright Scholar and visiting associate professor at the Indian Institute of Technology, Bombay, where she engaged with students and faculty in the Department of Chemical Engineering. She served as a Fulbright Alumni Ambassador from 2013-16.

Magdalini Eirinaki
Professor
Computer Engineering, SJSU

Dr. Magdalini Eirinaki is a Professor and Associate Chair at the Computer Engineering Department of the College of Engineering at SJSU. Her research interests cover the areas of recommender systems and machine learning and, in particular, on social recommender systems, aspect-based recommendations, social network mining, deep learning applications, and personalization. She has published several papers in refereed journals and international conference proceedings in the above areas. Dr. Eirinaki received the SJSU distinguished faculty mentor award in 2015 and is the recipient of the 2017 Applied Materials Award for Excellence in Teaching.

Ayca Erdogan
Assistant Professor
Industrial and Systems Engineering, SJSU

Dr. Erdogan is an Assistant Professor at San José State University Department of Industrial and Systems Engineering. She received her PhD in Operations Research form North Carolina State University. Previously, she was a Post-doctoral Research Fellow at Stanford University, and visiting assistant professor at University of California. Her research interests are applications of statistical and operations research methods. She builds data-driven models and methods to optimize operations in service and production systems. She also works on building stochastic simulation models for disease progression to find optimal treatment scenarios that would guide public health policy.
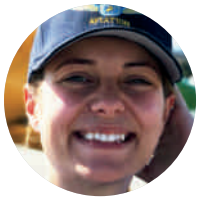
Francesca Favaro
Assistant Professor
Aviation Program, SJSU

Dr. Favaro is an assistant professor in the Aviation Program at SJSU. Her research involves various aspects of risk and safety assessment for autonomous vehicles, such as Unmanned Aerial Systems and self-driving cars. She has authored several journal publications and conference proceedings, and currently serves as technical reviewer for Elsevier's Reliability Engineering and System

Favaro serves on the Board of Directors of the Aero Club of Northern California. She is an FAA certified Advanced Ground Instructor, a certified Remote Pilot, and a solo-endorsed pilot. Prior to joining SJSU she earned a PhD and MS in Aerospace Engineering at the Georgia Institute of Technology, and MS and BS in Space Engineering at Politecnico di Milano, Italy.

Lili He
Professor
Electrical Engineering, SJSU

Lili He is a professor at San José State University, Department of Electrical Engineering. Lili graduated from Nanjing University for BS in Semiconductor Physics. She received her Master and PhD in Electrical Engineering from State University of Buffalo. Her research area is mainly in semi-conductor device. Recent year, her

research area is focused more in nano-electronics and solar cell and related systems.

Hyeran Jeon
Assistant Professor
Computer Engineering, SJSU

Hyeran Jeon is an Assistant Professor at the Computer Engineering Department. Her research interests include reliable and energy efficient through-put processor design, software and hardware interaction, and emerging memory and storage systems design. She earned her Ph.D. at the University of Southern California in 2015. She spent her summer at IBM T.J. Watson Research Center and the fall at AMD Research as a research intern in 2012. Before pursuing her Ph.D., she worked as a systems software engineer at Samsung Electronics, Korea from 2002 to 2009.

Hongrui Liu
Assistant Professor
Industrial and Systems Engineering, SJSU

Hongrui Liu is currently an assistant professor in Industrial and Systems Engineering at San Jose State University (SJSU). Her research interests include optimization and statistical modeling, algorithms, data analytics and their applications in supply chain and energy industry.

Melanie McNeil
Professor
Chemical Engineering, SJSU

Dr. Melanie McNeil is a chemical engineering professor at San Jose State University. Her teaching and research span bioprocess engineering, environmental engineering, and materials processing engineering. During her career, she has been significantly involved with women and under-represented minority student development. She has been the faculty advisor for the student group of Society of Women Engineers for over 20 years. In addition, she has extensive curriculum development experience as team leader for the development of the Environmental Health and Safety concentration, and as one of the founding members of the task force that developed the BS and MS biomedical engineering programs at SJSU. She was one of three facilitators who brought the Braven career and leadership accelerator program to SJSU, and incorporated it into the SJSU curriculum.

Dahyun Oh
Assistant Professor
Materials Engineering, SJSU

Dahyun Oh is an Assistant Professor in the Materials Engineering Department at San Jose State University. Her research focuses on developing new materials for next-generation batteries. Her research group at SJSU is particularly

interested in building the material design rule to make safe lithium-ion batteries for diverse applications such as electric vehicles, portable electronics, and IoT devices. She received her Ph.D. from Massachusetts Institute of Technology (MIT) in 2014.

Nicole Okamoto
Department Chair
Mechanical Engineering, SJSU

Dr. Okamoto did her BS at Calvin College and MS and Ph.D. in Mechanical Engineering at the University of Illinois at Urbana-Champaign. She taught at Baylor University for several years before moving to SJSU in 2001. She teaches courses in the thermal sciences and does research in the cooling of electronics and modelling and experimental testing of thermal components. She is very interested in developing new methods to improve student success, and she currently serves as Chair of the Mechanical Engineering Department.

Younghee Park
Assistant Professor
Computer Engineering, SJSU

Younghee Park is an assistant professor in Computer Engineering of San José State University. She received her Ph.D. in Computer Science from North Carolina State University in 2010. She has conducted a broad range of research in security areas, including

SDN/NFV security and IoT security. She has two NSF grants related to Smart City and SDN/NFV. She has worked on four industry projects in SDN/NFV, supported by Arista Inc., Nexenta Inc., and VMware Inc. She is a coordinator for the Cybersecurity Certificates program supported by the NIETP. Since 2016, she has served as Center Executive at the Center for STCCS at SJSU, a multidisciplinary research center in the area of the Smart City. She obtained an award of excellence as a distinguished faculty mentor for the SJSU Student Research Competition in 2017. She received the College of Engineering Research Professor Award, as the Kordestani Endowed Chair from 2016 to 2017.

Jinny Rhee
Associate Dean
College of Engineering, SJSU

Dr. Jinny Rhee is currently the Associate Dean of the College of Engineering at SJSU. Her research interests include thermal management of electronics and renewable energy technologies, as well as engineering education and student success. She joined SJSU in 2002 as a professor of mechanical engineering. She received a PhD in mechanical engineering from Stanford University in 1995.

Blanca Sanchez-Cruz
Assistant Director Student Support Programs, College of Engineering, SJSU

After working in TRiO pre-college programs, providing support services to first-generation/low-income high school students in the San José community, for over 8 years, Ms. Sanchez-Cruz joined the College of Engineering at San José State University as the Assistant Director for Student Support Programs to support college efforts in areas of retention, graduation and inclusion, especially among underrepresented student populations. In this position, her many roles include: MESA Engineering Program Director, Silicon Valley WiE Conference Manager, college representative to campus-wide Chicanx/Latinx and African American Student Success Task Forces, Administrator of the National Action Council for Minorities in Engineering Scholarship (block) Grant, and Liaison to Engineering affiliated student organizations.

Ms. Sanchez-Cruz received a Masters of Arts Degree in International Service and Leadership (2008) from Roehampton (UK), BA in Global Studies (2005) and BS in Hospitality Management (2003) from San José State University.

Birsen Sirkeci
Associate Professor Electrical Engineering, SJSU

Birsen Sirkeci is an associate professor in the department of Electrical Engineering at San José State University (SJSU). Prior to joining SJSU, she was a postdoctoral researcher at UC Berkeley, CA. She received her Ph.D. from Cornell University, Ithaca, NY in 2006. Her research lies in the areas of wireless communications, sensor networks and statistical signal processing.

Mahima Agumbe Suresh
Assistant Professor Computer Engineering, SJSU

Mahima Agumbe Suresh joined San Jose State University as an Assistant Professor in August 2018. She received her PhD from the Department of Computer Science and Engineering at Texas A&M University in December 2015. She worked as a postdoctoral researcher at Xerox Research Center, India in 2016, and as a Visiting Assistant Professor at Texas A&M University in the 2017-18 academic year. Her research interests include algorithms, protocol design and modeling, and system design for cyber-physical systems and Internet of Things. She has published in several peer reviewed conferences and journals and been a program committee member at several conferences.

Miri VanHoven
Associate Professor Biological Sciences, SJSU

Dr. Miri VanHoven earned her PhD in Genetics from the University of California San Francisco in Dr. Cori Bargmann's laboratory, and completed her postdoctoral research at Stanford University in Dr. Kang Shen's laboratory studying neural circuit formation. She came to San José State University (SJSU) in 2008. Her teaching primarily focuses on genetics, neuroscience, and science communication. Her research focuses on understanding the molecular mechanisms that underlie critical steps in formation of the nervous system and she has been awarded research grants from the NSF and NIH. Dr. VanHoven collaborated with Dr. Sami Khuri, chair of the SJSU Department of Computer Science, to develop a Minor in Bioinformatics and now serves as the program's advisor. She also collaborated with Dr. Sami Khuri and a multidisciplinary group to develop an MS in Bioinformatics. Dr. VanHoven will serve as a graduate coordinator for the program, and the first student cohort will begin in spring 2019.

Catherine Voss Plaxton
Director Career Center, SJSU

Catherine Voss Plaxton is the director of the SJSU Career Center that serves 35,000 students and 10,000 employers. She brings a multidisciplinary professional and academic background with strengths in strategic assessment and planning, human and organization development, and technology integration to scale interventions. In May, she expects to complete her doctorate in educational leadership with research focused on the effects of cognitive bias on student engagement.

Belle Wei
Carolyn Guidry Chair of Engineering Education and Innovative Learning College of Engineering, SJSU

Dr. Belle Wei served as Provost and Vice President for Academic Affairs at California State University, Chico, and as the Charles W. Davidson College of Engineering's Don Beall Dean of Engineering at San José State University (SJSU) for ten years. She is currently SJSU's Carolyn Guidry Chair in Engineering Education and Innovative Learning.

Dr. Wei has been a champion for fostering inclusive excellence, bolstering STEM education, and broadening participation in computing by creating new interdisciplinary computing degree programs. She led the expansion of educational access for historically underrepresented groups, and the development of the Engineering Pathways to Success initiative that brings Project Lead the Way curricula to middle and high schools in the SF/Silicon Valley region.

Dr. Wei chaired the Engineering Deans Council's Diversity Committee in 2009-2012, and spoke before U.S. Congress in 2006 on innovation, contributing to the 2007 America COMPETES Act.

Wencen Wu
Assistant Professor Computer Engineering Department, SJSU

Wencen Wu is an Assistant Professor in the Computer Engineering Department at San Jose State University. Her research interests include robotics, machine learning, and systems and control as applied to cyber-physical systems and autonomous multi-robot systems. Prior to joining SJSU in Fall 2018, she was an Assistant Professor in the ECSE department of Rensselaer Polytechnic Institute from 2013–2018. She received her Ph.D. from Georgia Institute of Technology in 2013.

Juzi Zhao
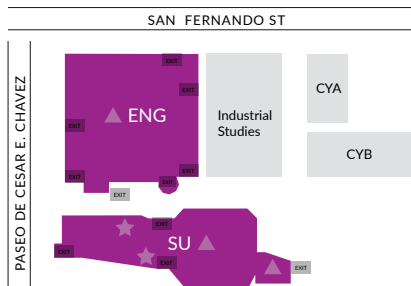Assistant Professor Electrical Engineering, SJSU

Juzi Zhao joined SJSU as an Assistant Professor of Electrical Engineering. She holds a Ph.D. from The George Washington University. Prior to joining SJSU, Juzi worked as a postdoc researcher at University of Massachusetts Lowell and Chalmers University of Technology (Sweden). Her research area is networking.

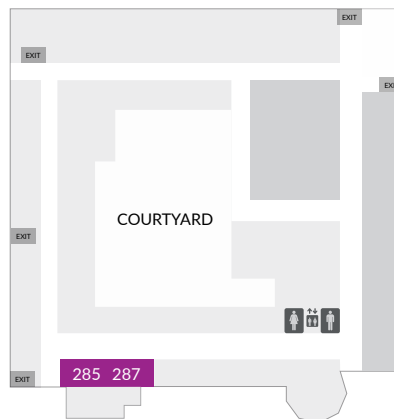# Event and Session Locations

SJSU Campus

Parking: North Parking Garage
$5 Parking (3rd floor and up)
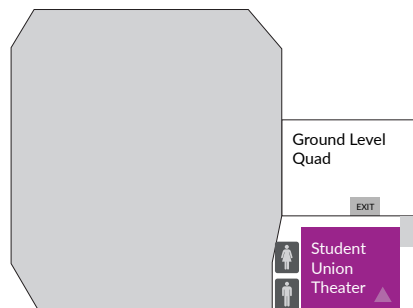
★ Check-In
★ Plenary Sessions
▲ Concurrent Sessions/Panels

North Parking Garage

SAN FERNANDO ST

PASEO DE CESAR E. CHAVEZ

▲ ENG

Industrial Studies

CYA

CYB

★ ★ SU ▲ ▲

EXIT

Engineering Building

Engineering Building 2nd Floor

EXIT
EXIT
EXIT

COURTYARD

EXIT
EXIT

285 287

Student Union

Student Union Ground Floor

Ground Level Quad

EXIT

Student Union Theater ▲

Student Union 1st Floor

Entrance
EXIT
EXIT
EXIT
Info Table
EXIT
EXIT

Engineering Building 3rd Floor

345 343 341 331

EXIT
EXIT

337

COURTYARD

EXIT
EXIT
EXIT
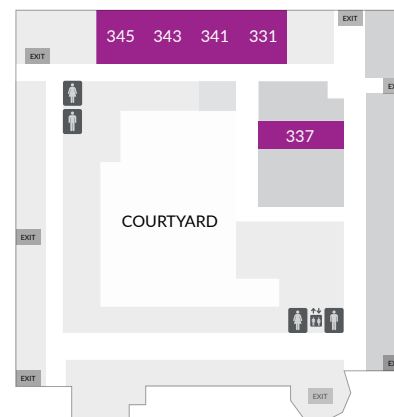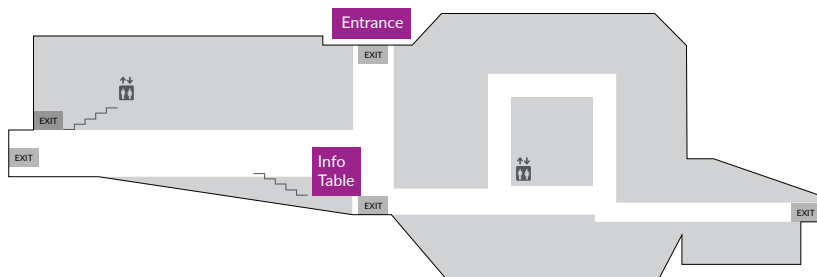
Student Union 2nd Floor (Meeting Rooms)

Ballroom A/B
Ballroom C

4A 4B

3A 3B
2A 2B

1A 1B

EXIT
EXIT
EXIT
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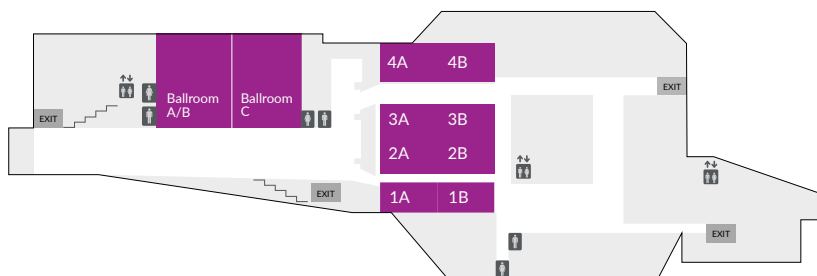
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