SILICON VALLEY
WOMEN IN ENGINEERING

2020

vision for a better **future**

2020 Silicon Valley WiE Conference

Saturday, March 14, 2020, 7:30 AM - 7:00 PM
San José State University

Title Sponsor
Mark and Carolyn Guidry
Women in Engineering Program Fund

SJSU | CHARLES W. DAVIDSON COLLEGE OF ENGINEERING

2020.siliconvalleywie.org
#SVWIE2020

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 degree in Electrical Engineering at Louisiana State University in 1959. One week after graduation, she married Mark Guidry (1937-2020), 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

Welcome to the 2020 Silicon Valley Women in Engineering Conference! All of us in the Charles W. Davidson College of Engineering at San José State University are honored to be your hosts.

You are well on your way to getting the education you need to be skilled and ethical engineers. The world needs you to take your seat at the table! Every new technology destined to be used by a globally diverse population such as ours must be envisioned, designed, and created by an equally diverse group of engineers; and that includes you.

Your presence at this conference means that you have made a commitment to listening, sharing, and learning. I also encourage you to build and expand on your own support network. Meet at least three people you don't know at this conference, share your stories and contact information, and make specific plans to meet up again, outside of this conference.

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
San José State University

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

Be You, With Us

cisco.com/careers

We Are Cisco, where each person is unique, but brings their talents to work as a team and make a difference.

#WeAreCisco

Follow @WeAreCisco

CISCO

Message from the Conference Chair

2020 - Vision for a Better Future

Every day, we are surrounded by news of the struggles of our time — from the global health crisis to the impacts of climate change. We are reminded that both our local community and the world are facing complex problems with critically important consequences. We can be paralyzed by these problems, or we can take an active role in finding solutions.

The 2020 Women in Engineering Conference theme, *Vision for a Better Future*, serves as a reminder that as engineers and scientists, we are challenged to the latter— to be a part of the solution. At this year's WiE conference, you will hear from women across a broad spectrum of engineering fields who have used their technical expertise and leadership to make a positive difference in their local and global communities. These leaders are creating a better future by designing greener construction and energy solutions, developing life-saving diagnostics and medicine, and inventing AI and VR tools that promote inclusion and security while revolutionizing the way we interact and work.

In order for engineers and scientists to be effective change agents, we need to fully understand complex technical problems while also understanding the larger business and societal issues. Who benefits from a new technology? Where are the hidden costs in terms of money, labor, or planetary impact? How do we aim for balance when comparing goals such as safety versus privacy, connection versus freedom, quantity versus quality?

The WiE Conference is a special community of faculty, industry leaders, and future engineers and scientists coming together to create a vision for a better future. As a conference participant, you will be able to immerse yourself in the details of technology while also learning about the complexities of implementing that technology to make a difference. Enjoy a full day of programming, from the morning keynote sessions through the evening's Innovation Showcase that highlights the technologies of our sponsors. Take advantage of the many opportunities to explore different technical fields, hear women leaders share their career stories and advice, and build your professional development skills.

We have some of the tech industry's most innovative and accomplished leaders coming to engage with you. We hope that by hearing about their expertise and careers, you will be motivated to tackle complex problems as an innovator and a leader in your chosen field. There are so many ways that engineers and scientists can make a positive difference in the world. The WiE Conference will help you develop your personal Vision for a Better Future.

Stacy H. Gleixner, PhD
Professor, Materials Engineering and College of Engineering Special Projects
Chair, 2020 Silicon Valley Women in Engineering Conference
San José State University

Plenary Sessions

Kate Gordon

Director

California Governor's Office of Planning and Research and Senior Advisor to the Governor on Climate

Morning Keynote
Topic: California Leadership on Climate and Energy

Kate Gordon is a nationally-recognized expert on the intersection of climate change, energy, and economic development. Gordon was appointed Director of the Governor's Office of Planning and Research and Senior Advisor to the Governor on Climate by Governor Gavin Newsom on January 7, 2019. She has authored or co-authored numerous publications, including the Fourth National Climate Assessment's chapter on "Reducing Risks Through Adaptation Actions." Prior to being appointed OPR Director, Gordon was a Senior Advisor at the Henry M. Paulson Institute, where she oversaw the "Risky Business Project," focused on quantifying the economic impacts of climate change to the U.S. economy, and also provided strategic support to the Institute's U.S.-China CEO Council for Sustainable Urbanization. She was also a nonresident Fellow at the Center on Global Energy Policy at Columbia University.

Earlier in her career, Gordon served as Vice President for Climate and Energy at the Center for the Next Generation, Vice President of Energy and Environment at the Washington D.C.-based Center for American Progress, and Co-Executive Director at the national Apollo Alliance (now the Blue Green Alliance).

Gordon earned a J.D. and a Master's degree in City and Regional Planning from the University of California at Berkeley, and an undergraduate degree from Wesleyan University.

Meagan Pi

Vice President
gTech Velocity

Google

Morning Keynote
Topic: My Journey from China to Silicon Valley

Meagan Pi leads gTech Velocity, a partner engineering team for Google Assistant, Search, and Web Ecosystem. A lot of technologies in these areas are either still in incubation or are under major transformation. Meagan joined Google in 2003 as an engineer for Enterprise Search. Before taking her current role, she led the gTech Publishers team supporting Google's global publishers business.

Meagan is a mother of a teenage boy and a 9-year-old daughter. She is actively working toward providing more equity support for the Asian community in tech and women in tech. In her "spare time", she advises startups to use technology to improve education and women's health.

Isaura S. Gaeta

Vice President, Security Research; General Manager, Intel Product Assurance & Security

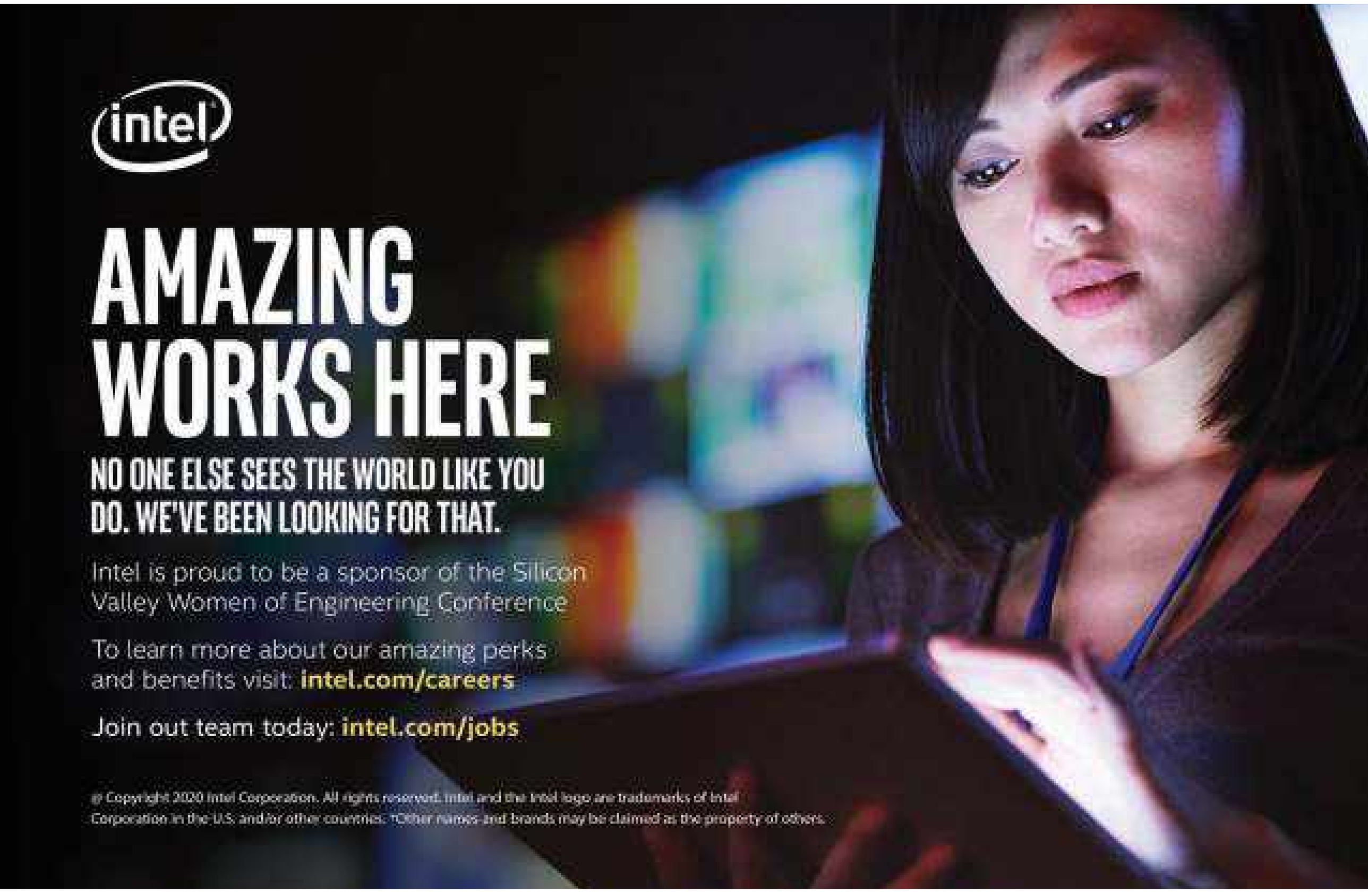
Intel Corporation

Lunch Keynote
Topic: Fearless in Tech

Isaura Gaeta leads an engineering team focused on hardware security research including penetration testing, physical attack mechanisms, and outreach to academia. Previously, she was GM of systems engineering in the Platform Engineering Group and was responsible for optimizing engineering execution capacity, quality management systems, and operational excellence for a global engineering organization of 18,000 people. A 30-year veteran of Intel, Gaeta spent the first two decades of her Intel career developing various semiconductor processing technologies. Her work during that period led to two patents and five Intel Achievement Awards, the company's highest recognition. Gaeta holds Bachelor's and Master's degrees in Electrical Engineering from Stanford University. She founded Intel's Network of Executive Women for the Latin America region and was the Chair of Intel's Hispanic Leadership Council. Outside of Intel, she serves on the board of the Hispanic Foundation of Silicon Valley where she chairs the Nominating and Governance Committee. The Hispanic IT Executive Council has recognized her six times on its top 100 Hispanic professionals in the IT industry.

Google

Google is a proud sponsor of the 2020 Silicon Valley Women in Engineering Conference



Concurrent Session

A

9:45–10:45 AM

Emerging Technologies

TRACK 1

Innovating for the Environment

A1: Sustainable Development & Construction

Session Chair
Mahima Agumbe Suresh
Assistant Professor, Computer Engineering
San José State University

Location
SU 3A

Technological advancements have equipped us with capabilities to connect and automate better than ever before, which open exciting new opportunities for Smart Cities. Besides making cities smarter, better development and construction are necessary to make them sustainable. This session will shed light on the cutting edge of sustainable Smart City innovations, including the environmental impact of construction, the role of recycling, and the future of form factor.

Embodied Carbon in Construction

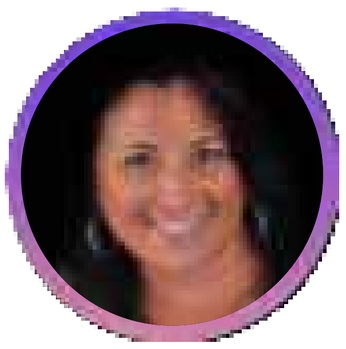
Tanita Jha
Senior Project Engineer
Webcor Builders

Tanita Jha is a Senior Project Engineer working at Webcor Builders in the estimating and preconstruction department. Tanita graduated from San José State University in 2017 with a Bachelor of Science degree in Industrial and Systems Engineering. Since graduating, she has worked for San Jose Airport and Webcor Builders. Although not a native civil engineer, Tanita has applied knowledge of continuous improvement and project management to the construction industry. Tanita has a deep interest in environmental stewardship; she is a LEED Green Associate and is part of Webcor's Green Team.

Recycled Water - A Sustainable Water Resource in Silicon Valley

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 Bachelor of Science degree in Civil Engineering and a 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 29 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.



Driving Down Carbon in the Built Environment with Concrete Technologies

Jenny Mitchell
Lead, Capital Construction Projects
LinkedIn

Jenny joins us from LinkedIn's Global Real Estate Workplace team at their headquarters campus in Mountain View, California. She has more than twenty years of experience in the construction industry leading projects throughout the Bay Area as a concrete manufacturer, general contractor, client representative, and owner. With a passion for sustainability, Jenny is leading the concrete carbon reduction mission for LinkedIn's new Mountain View headquarters building scheduled to open in 2021. Jenny earned a Master of Science degree in Environmental Studies with a Concentration in Sustainable Development and Policy from the University of Illinois, and a Bachelor of Arts degree in Environmental Studies accompanied by a Minor in Business Administration from San José State University.

The Future of Form Factor

Melissa Ruhl
Emerging Mobility Researcher
Ford

Melissa Ruhl recently joined Ford in Palo Alto as an Emerging Mobility Researcher. Previously, she was a Senior Planner for Arup in San Francisco where she managed projects on transportation innovation. She regularly speaks in California and nationally on autonomous vehicles and the future of cities. She has published a number of articles on future mobility and most recently co-authored a chapter on mobility as a service in the recently published *Disruptive Transport: Driverless Cars, Transport Innovation and the Sustainable City of Tomorrow*. In September 2019, Melissa was recognized on the "40 under 40" *Mass Transit* magazine list.

Enterprise-Grade Conversational AI@Scale

Jorjeta Jetcheva
Senior Manager and Distinguished Research Scientist
Accenture

Dr. Jorjeta Jetcheva is the Global R&D Lead for the Virtual Assistant portfolio of Accenture Operations, and is responsible for conceptualizing, building and deploying Virtual Assistants, AI-Powered Knowledge Platforms, and Agent Assist solutions. She has received multiple innovation and research awards, including recognition as a 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.

Dr. Jetcheva holds a PhD 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.

Opportunities and Challenges in Machine Learning and Artificial Intelligence

Monica Martinez Canales
Sr. Principal Engineer
Intel

Dr. Monica Martinez-Canales, Sr. Principal Engineer, is responsible for driving new opportunities in data analytics, AI/DL/ML algorithms, and mathematics-based breakthroughs for deployment in operational processes, software, platforms, accelerators or Silicon and driving new use cases for Edge-to-Data-Center data analytics, supporting software optimization on Intel Architecture, and providing insights on industry trends.

Monica earned a PhD degree in Computational and Applied Mathematics from Rice University and a B.S. degree in Mathematics from Stanford University. Monica has authored/co-authored over 80 reports, papers, and presentations and over 10 patent applications (with one in Autonomous Vehicles recently granted). Monica was named a HENAAC Luminary in 2007, and one of *Hispanic Business* magazine's 25 Elite Women in 2009, and was profiled in CAWIT's Women Innovators Series in 2017. Monica has been a long-time STEM/STEAM advocate and mentor.

TRACK 2
The Future of Work

A2: Machine Learning Technologies

Session Chair
Hyeran Jeon
Assistant Professor, Computer Engineering
San José State University

Location
SU Theater

In this session, we will host three wonderful talks all about machine learning and AI systems. Jorjeta Jetcheva from Accenture will cover the challenges of deploying conversational AI at scale, and the key role of AI-assisted knowledge management in deploying enterprise-grade AI applications. Daphne Luong from Google will introduce an overview of research at Google, which tackles challenges that define the technology of today and tomorrow with examples of recent AI research and applications. Monica Martinez Canales from Intel will introduce various opportunities and challenges in machine learning and artificial intelligence.

Research at Google

Daphne Luong
Sr. Engineering Director
Google

Daphne leads efforts in natural language understanding and human computation at Google Research. Her expertise is in building technologies from the ground up, with experience across a range of startups and established companies. Daphne has led teams and delivered enterprise-grade platforms at Nest, [24]7.ai, Microsoft, and Tellme.

Daphne is an active community volunteer who advises social entrepreneurs across the globe through Santa Clara University's GSBI program and mentors local AVID high school students. She has served on the boards of Los Altos Art Docents and World Pulse, and on the advisory boards of El Camino Women's Hospital, Needslist, and SJSU Engineering IAC. She is the recipient of the President's Volunteer Service Award and the Microsoft Silicon Valley Women's Inspiration Award.

Concurrent Session

A

9:45–10:45 AM

Emerging Technologies

TRACK 3

Our Connected World

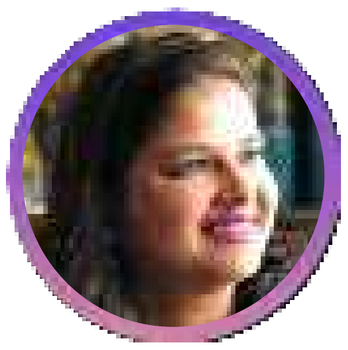
A3: Ethics of Artificial Intelligence

Session Chair
Magdalini Eirinaki
Professor and Associate Chair
Computer Engineering
San José State University

Location
ENGR 331

We allow AI to curate our music and movie playlists, answer our questions and translate foreign languages, and even drive our cars. In the past few years, a broad range of AI applications have become so ubiquitous we can't imagine everyday life without them. AI has allowed us to visualize how we will look when we get old and add funny headpieces to our selfies, but also to fight cyberbullying and diagnose cancer in its early stages. However, AI can also discriminate against underrepresented groups, or become a tool of propaganda and warfare. After many decades of baby steps towards Alan Turing's vision of an intelligent machine, we are now experiencing an extraordinary growth with no signs of stopping. Our efforts to make machines intelligent raise several ethical questions that go beyond the design of the underlying algorithms and technologies.

In this panel, we will discuss the ethical aspects of AI, from the models and algorithms (bias, fairness, explainability, transparency, etc.), to the end outcomes (safety, privacy, malicious use, control, etc.), and finally the impact AI has on humans (automation, impact to democracy, human interaction, etc.).

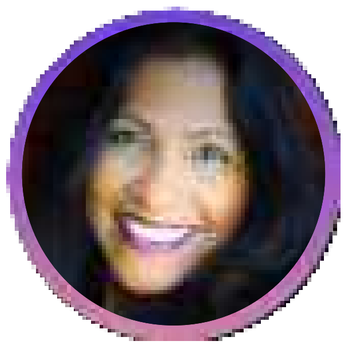


Shilpi Agarwal
CEO
Social Strategi LLC

Shilpi Agarwal is a Social Impact Leader and the CEO of Social Strategi LLC, a Social Enterprise that leads initiatives to help scale the impact of social good. One such initiative is the Social Data for Social Good Initiative, a Free 10 Weeks Marketing Acceleration Program for nonprofits. Another Social Good Initiative led by Shilpi is the DataEthics4All Initiative, with a mission to raise awareness for ethical data-driven practices. Shilpi is the driving force behind the first Data Ethics Advisory Council, an honorary advisory board that brings together brilliant business minds to help lead the responsible development of data ethics. Shilpi is a firm believer in Social Good. She has taught at Stanford and UC Berkeley and is an MIT $100K Launch Mentor.

Darlene Damm
Chair, Global Grand Challenges
Singularity University

Darlene Damm is Chair and Faculty for Global Grand Challenges with Singularity University, where she helps innovators, companies and organizations use exponential technologies to solve the world's most urgent social problems. Darlene has a broad background spanning both technology and social change. In 2012, she founded DIYROCKETS, the first company to crowdsource R&D for 3D printed rocket engines. In 2011, she was an early co-founder of Matternet, one of the world's first companies using drones for commercial transport and delivery of medical goods. Darlene served with Ashoka, the world's largest association of social entrepreneurs, for nearly ten years, and spent over a decade working in Vietnam, Myanmar, Indonesia, East Asia and the US on educational and economic development programs.



Mia Dand
CEO
Lighthouse3

Mia Dand is the CEO of Lighthouse3, a strategic research and advisory firm based in Oakland, California. Mia advises large organizations on responsible innovation at scale with new and emerging tech including Artificial Intelligence (AI). She has a successful track record of leading complex cross-functional programs at the intersection of business, data, and governance for global companies. Mia is the founder of the global Women in AI Ethics initiative; and creator of the annual "100 Brilliant Women in AI Ethics" list and the Women in AI Ethics online directory, the leading resource for recognition, recruitment, and empowerment of talented women in this space.

Minna Holopainen
Vice President of Communication
Axiado Corporation

Minna J. Holopainen is a dynamic leader with 25+ years of international experience in communication, marketing, and public relations spanning both private and public sectors. She is currently Vice President of Communication at a Silicon Valley cybersecurity startup Axiado. She also teaches a senior capstone class for communication majors at San José State University. Holopainen is a frequent speaker in professional lectures, panels, and conferences on a variety of communication and diversity topics. Her work has earned multiple awards, e.g., "Pride of San José Award" (2013) by the City of San Jose. Holopainen was named "The Most Influential Professor" by SJSU students in 2019.

TRACK 4

The Next Generation of Healthcare

A4: Robotics, Medical Devices and Diagnostics

Session Chair
Winncy Du
Professor, Mechanical Engineering
San José State University

Location
SU 1A

Robots have been applied in healthcare and medical diagnosis for over a decade. Examples include surgeon assistants da Vinci, rehabilitation robots Lokomat, and disease analyzer using artificial intelligence (AI) InData Lab. One of the first steps towards healthcare is diagnosis. Disease detection can be challenging and time consuming, every minute counts when a dangerous infection strikes. Right diagnosis with right care is the key to speedy recovery. Ms. Sree Rajeswari from Cepheid will talk about how to make diagnostics faster, more accurate, and available in remote areas. Ms. Neeta Mhatre from Intuitive Surgical will share her first-hand experience on how da Vinci ® surgical system and the Ion™ endoluminal system were developed, manufactured and marketed with a deep understanding of surgical needs, smart systems/instruments, and actionable digital insights. Finally, Ms. Amanda Abiera from Shockwave Medical will present Intravascular Lithotripsy (IVL) that creates pulsatile sonic pressure waves to safely modify cardiovascular calcium.

Bridging the Gap: from Disease Detection to Patient Care

Sree Rajeswari
Sr. Diagnostic Consumables Engineer
Cepheid

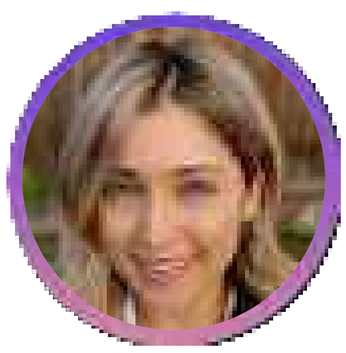
Sree Rajeswari has 11 years of experience in New Product Development projects. Currently, she is working in the NPD group at Cepheid. Her group is developing a new platform to enable viral and bacterial target detection for a multi-disease panel assay with a new range of consumables. Sree previously worked as Senior R&D Engineer at Beckman Coulter Life Sciences (a.k.a Labcyte). She worked on Labcyte's Echo 525 product through its lifecycle. She also worked on development of new consumables to enable and expand Echo 525 capabilities in the genomics domain. Sree holds a Master of Science degree in Chemical Engineering from San José State University and a Bachelor of Science degree in Materials Engineering from Hyderabad, India.

Technology Trends in Robotic Assisted Surgery

Neeta Mhatre
VP, Program Mgmt Office
Intuitive Surgical

Neeta Mhatre is an accomplished medical industry leader with over twenty years of global experience in diverse organizations from start-ups to large corporations. She joined Intuitive Surgical in February 2015 to form the Project Management Office. Previously, Neeta was with Siemens for 12 years in various leadership roles, from Business Head of the South Asia Cluster, and Chief Information Officer for the Siemens Ultrasound Leadership Team, to Senior Director of Product Management for the company's Product, Portfolio & Strategy team.

Neeta holds an MBA from Santa Clara University and a Bachelor of Science degree in Biomedical Engineering from the University of Bombay, India.



Make Waves: Crack Calcium at the Speed of Sound

Amanda Abiera
Sr. R&D Engineer
Shockwave Medical

Amanda Abiera has a BS in Biomedical Engineering from San José State University. Since 2015, she's dedicated her time wearing multiple hats building up a medical device startup called, Shockwave Medical. In 2019, Shockwave Medical had a successful IPO and is currently on a massive upward trajectory. Amanda continues to learn and grow to maximize her potential. Amanda is a driven leader with a passion for creation and innovation.

Concurrent Session

A

9:45–10:45 AM

Professional Development

TRACK 5
Career Planning

A5: Practice Networking for Career Success

Location
SU 2A

This is an active session where you will practice your networking skills while learning from technical leaders who share advice on how to be a great intern or new hire.

Fatemeh Davoudi
Assistant Professor, Aviation And Technology
San José State University

Dr. Fatemeh Davoudi is an Assistant Professor of Manufacturing Systems in the Department of Aviation and Technology at San José State University. She holds a PhD degree in Industrial Technology, with a minor in Statistics. She also holds a B.S. degree in Mathematics and an M.S. degree in Engineering & Technology Management. Her research interests lie in applied machine learning and predictive modeling of industrial systems, quality management and lean manufacturing, and statistical modeling of industrial occupational incidents for improving safety outcomes. Currently, Fatemeh is leading the Machine Learning & Safety Analytics Lab in the Technology Department.

TRACK 6
Your Career Path

A6: Career Stories and Strategies I

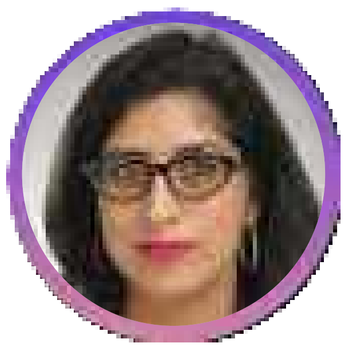
Session Chair
Lili He
Professor, Electrical Engineering
San José State University

Location
ENGR 341

This session will provide conference attendees with an opportunity to gain professional and personal insights from women technical leaders 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 their experiences working in their respective industries, giving attendees a broad perspective of different career options. They will also share their personal and professional challenges faced, lessons learned, and successes achieved during their college years and their careers. They will highlight what employers are looking for and how to land that first job as a college graduate.

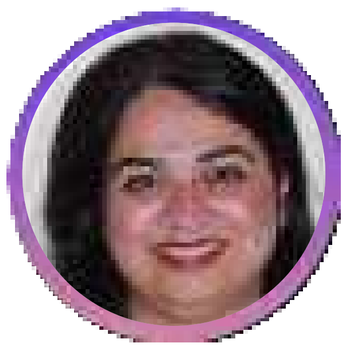
Ellen Greenberg
Deputy Director for Sustainability
Caltrans

Former California Governor Jerry Brown appointed Ellen Greenberg in 2016 as the Caltrans Deputy Director for Sustainability, a position created to lead her 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.



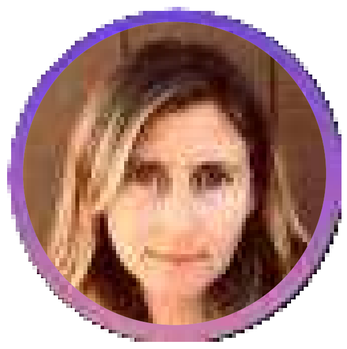
Ali Guarneros Luna
Project Manager
NASA

Ali Guarneros Luna currently works in the Office of Small Satellite Technology Program (SSTP) as a Program Manager at NASA Ames Research Center. She manages flight projects that are in the early development of maturity and are a priority for the government and NASA. Ali was born in Mexico City and now lives in the Bay Area. She received her Master and Bachelor of Science degrees in Aerospace Engineering from San José State University in 2010 and 2013, respectively.



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. She also serves as the Automation and Infrastructure Lead of the organization. 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.



Jessica Rosenthal
Research Associate
Graniterock

Jessica Rosenthal is a Materials Engineer at Graniterock in Watsonville, CA. Her current focus is on building and road materials, including concrete, asphalt, and aggregates. Previously, her background in chemistry and materials, along with her interest in the development of technologies that help solve the world's energy and resource challenges, led to R&D positions with renewable energy and water treatment startups. While working and managing family and kids, Jessica has also taught Chemistry and Materials Engineering courses at DeAnza College, Cabrillo College, and San José State University. She holds an M.S. degree in Chemistry from UC Santa Cruz and an M.S. degree in Materials Engineering from San José State University.

Concurrent Session

B

11:00 AM–12:00 PM

Emerging Technologies

TRACK 1

Innovating for the Environment

B1: A New Era in Air and Space Travel

Session Chair
Maria Chierichetti
Assistant Professor, Aerospace Engineering
San José State University

Location
SU 3B

This session will cover current transformations in air and space travels and will investigate how air transportation is changing toward a more sustainable system. We are assisting in a revolution of how we conceive air and space transportation, and how smart and sustainable approaches to these technological challenges can lead to better services for our communities. Speakers from Joby Aviation, NASA, and Lockheed will showcase how advancements in technology can lead to a safer and more sustainable world, where transportation of people and goods is optimized.

Electric Aircraft for Urban Air Mobility

Maryam Khoshlahjeh
Aeroelasticity Lead and Program Manager
Joby Aviation

Maryam Khoshlahjeh is Aeroelasticity Lead and Program Manager at Joby Aviation, an eVTOL venture-backed startup based in Santa Cruz, CA. Prior to joining Joby Aviation, Maryam worked at Sikorsky Aircraft, A Lockheed Martin Company, as a Deputy Program Manager and Dynamics. Maryam was the recipient of the 2016 Marshall-Tan Engineering Leadership Award at Sikorsky and President's Award in 2015. Maryam started her undergraduate education in Iran. She moved to the US at 20 years of age, and received her Bachelor of Science degree in Mechanical Engineering from San José State University. She started working as an Aerospace Engineer at Advanced Rotorcraft Technology Inc, in Sunnyvale, CA. She went on to receive a Master of Science degree in Aeronautics & Astronautics from Stanford University and PhD degree in Aerospace Engineering from Penn State University.

Taking Flight

Diana Acosta
Deputy Technical Area Lead
Autonomous Systems and Robotics
NASA Ames

Diana Acosta has spent over twelve years empowering research and development at NASA. She began her career as a researcher exploring advanced control and automation solutions for future aircraft. As opportunities arose, Diana found herself gravitating toward leadership roles and is proud to have catalyzed innovation by collaborative multi-disciplinary teams in autonomous systems, aviation and aerospace. Her advancements as an engineer and strategies as a leader have been shared in over two dozen publications. In 2019, Diana completed her Master of Science degree in Leadership and Strategy at London Business School. She also holds Bachelor and Master of Science degrees in Mechanical and Aeronautical Engineering from the University of California, Davis.

Systems Engineering for Satellites

Ashley Pietz
System Engineering Associate Manager
Lockheed Martin

Ashley Pietz is a System Engineering Associate Manager at Lockheed Martin Space with thirteen years of experience in the Aerospace industry. She holds a Bachelor of Science degree in Materials Engineering from San José State University and a Master of Science degree in Engineering Leadership and Management from Santa Clara University. Ashley manages a team of eleven system engineers on the Next Gen Overhead Persistent Infrared (OPIR) program. Her career has grown from hands-on materials research and development to leading a multidisciplinary team in the development of specialized spacecraft interfaces for a multi-billion-dollar satellite.

TRACK 2
The Future of Work

B2: Intelligent Systems

Session Chair
Wencen Wu
Assistant Professor, Computer Engineering
San José State University

Location
SU 4A

Intelligent systems are revolutionizing a wide variety of industries ranging from robotics to manufacturing, from security to transportation, etc. They are complex systems that use a large range of technologies including machine learning, computer vision, distributed computing, and wireless networking to help improve the efficiency, quality, and flexibility of the underlying systems. This session focuses on discussing intelligent systems in various applications such as robotics, manufacturing, and video processing.

Intelligent Systems in Manufacturing

Archana Kashikar
Robotics Engineer
Arevo

Archana Kashikar is a Robotics Engineer currently working at Arevo Inc, a Bay Area startup, which is pushing the boundaries of composite 3D printing using robotics and ultra-strong, lightweight materials. She is the main developer for robotic software solutions involving robot motion planning for true 3D printing, an area in which she holds a patent and several pending patents.

She graduated from Santa Clara University in 2017 with an M.S. in Mechanical Engineering with a focus on Mechatronics and Robotics. She also holds an undergrad degree in Mechanical Engineering and Physics. Her passion for robotics and mechatronics goes back to her undergrad days at National Aerospace Laboratory, India, and at SCU's Robotic Systems Lab where she worked on robotics and mechatronics projects like multi-robot navigation systems and energy harvesting composites. She is currently enjoying being a mother to her 4-month-old baby girl and loves hiking with her husband, her baby, and her dog.

Machine Learning for Video

Jayashree Rangarajan
Vice President, FPGA Software Development
Xilinx Inc

Jayashree is Vice President of Interactive Design Tools team at Xilinx, where she is responsible for Vivado tools that enable developers to realize their designs on Xilinx silicon platforms. She is a recipient of the 2011 Tribute to Women and Industry award from YWCA Silicon Valley. Jayashree holds a Masters degree in Computer Science from the University of Florida, Gainesville.

Concurrent Session

B

11:00 AM–12:00 PM

Emerging Technologies

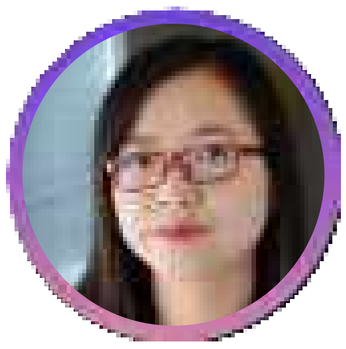
TRACK 3
Our Connected World

B3: Virtual Reality

Session Chair
Birsen Sirkeci
Associate Professor, Electrical Engineering
San José State University

Location
SU 4B

Virtual Reality (VR) is believed to be one of technological innovations that is about to change the world. VR has a wide range of applications including entertainment, military, sports, mental health, medical training, and education. In this session, we will learn about collaboration, social presence, and interactions in VR and shared 3D spaces.



Social Presence & Interactions in VR

Shu Liang
Research Scientist
Facebook

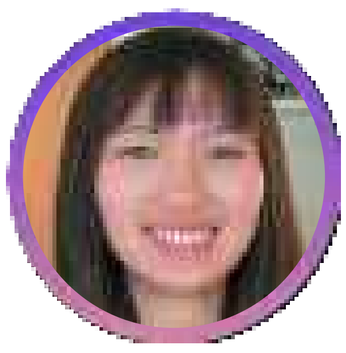
Shu Liang is currently a Research Scientist at Facebook AR/VR. She earned her PhD degree from the Paul G. Allen School of Computer Science and Engineering at the University of Washington. She was part of the UW Reality Lab. She earned her Bachelor's degree from Tsinghua University in 2013, majoring in EE.

Her research interest is mainly in the areas of computer vision and computer graphics, specifically in 3D face analysis, 3D reconstruction, etc.

Collaboration in Social VR and Shared 3D Spaces

Liv Erickson
Senior Product Manager
Mozilla

Liv Erickson is an open-source virtual reality developer who advocates for creating inclusive social VR spaces. She is currently working as a Senior Product Manager on the web-based social VR Hubs team at Mozilla. Previously, Liv worked as an Engineering Lead at the startup High Fidelity and as a Technical XR Evangelist at Microsoft. In 2016, she co-founded ARVR Academy, a non-profit organization dedicated to improving representation in the immersive technology industry. Above all, Liv is focused on building technologies that improve the human experience in an ethical, sustainable way.



Betty Tai
Research Scientist
Facebook

Betty Chun-Jung Tai is a Research Scientist at Facebook who works on virtual reality and brings hand tracking to Oculus Quest. Before joining Facebook, she received a PhD degree in Electrical & Computer Engineering from Purdue University in West Lafayette, Indiana.

TRACK 4

The Next Generation of Healthcare

B4: Diagnostics and Medicine

Session Chairs
Liat Rosenfeld
Assistant Professor, Chemical Engineering
San José State University

Melinda Simon
Assistant Professor, Biomedical Engineering
San José State University

Location
ENGR 285

For most of the 20th century, all patients with the same disorder received similar treatment. Therapy has since become more individualized: the same disorder is now being divided into subtypes and treated accordingly. This march toward personalized, or precision, medicine for many disorders is being hastened by advances in diagnostic tools. These technologies can help physicians detect and quantify multiple biomarkers (molecules that signal the presence of a disorder) to divide patients into subgroups that differ in their susceptibility to a disease, prognosis or likelihood of responding to a specific treatment. This session will focus on the development of new diagnostic tools and treatment methods in academia and in industry.

Unraveling Complexity of Disease, How Do We Get There?

Jacqueline McBride
Associate Director & Senior Scientist
Genentech

Jacqueline McBride is a seasoned Immunologist and received her Ph.D. at the University of Vienna, Austria. She continued her post-doctoral studies at Stanford School of Medicine as well as further studies at Genentech primarily focused on human immunology and autoimmune disease. She currently holds the role of Associate Director and Senior Scientist at Genentech leading a group of biomarker scientists in the areas of Inflammatory Bowel Disease and Infectious diseases. She is passionate about delivering key scientific insights for enabling the development of new medicines and the future of personalized healthcare.

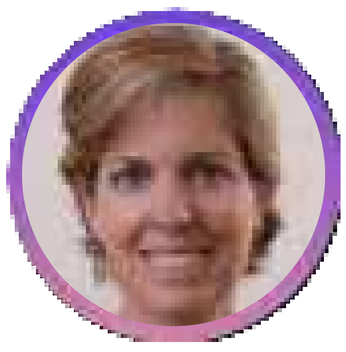
Digital Transformation to Accelerate Innovation in Drug Discovery & Development

Jayanthi Subramani
Director, Research and Development Informatics
Amgen

Jayanthi Subramani is passionate about improving healthcare through data-driven innovative solutions that allow researchers to gain useful insights and understanding of a disease and its cause, and to develop treatment.

As an organizational and people leader, Jayanthi builds and leads high performing multi-domain and cross-functional teams to create platforms and infrastructure that enable drug discovery and development processes. As an Engineer, she has devoted the past 18 years to work in the BioTech industry, developing solutions to support Early Discovery, Preclinical and Clinical stages of drug development and progression.

She holds a Master of Science degree in Computer Engineering from San José State University; and a Bachelor of Science degree in Electronics and Communication from the Government College of Technology, India.



Bringing Transcranial Focused Ultrasound into Focus

Kim Butts Pauly
Professor
Stanford

Kim Butts Pauly holds a Bachelor of Science degree in Physics from Duke University and a PhD degree in Biophysics from the Mayo Graduate School. She is currently a Professor in the Department of Radiology at Stanford University, with courtesy appointments in Electrical Engineering and Bioengineering. She directs the Radiological Sciences Laboratory. Kim is a fellow of the ISMRM, a member of the College of Fellows of AIMBE, and a Distinguished Investigator of the Academy of Radiology Research.

Concurrent Session

B

11:00 AM–12:00 PM

Professional Development

TRACK 5
Career Planning

B5: Job and Internship Search - Online and Beyond

Location
ENGR 329

Everyone is familiar with the big job boards—Glassdoor, Indeed and LinkedIn. Come and learn how to optimize your searches as well as other methods to increase your chances of landing a job or internship that will be the right fit for you.

Kelly Masegian
STEM Career Counselor
Career Center
San José State University

Kelly Masegian is the STEM Career Counselor at the San José State University Career Center serving over 7,500 Engineering students (undergraduate and graduate) as well as Computer Science and Management Information Systems. Previously, she worked with the Foothill/DeAnza Internship program at NASA Ames serving as an internship coordinator for 5 years providing career guidance and supervision to up to 125 interns.

As the mother of four, Kelly is used to a fast-paced environment, and deeply believes in helping students learn to navigate and be proactive in their career planning.

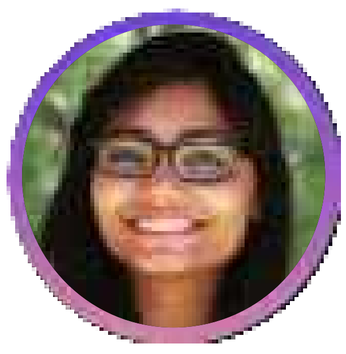
TRACK 6
Your Career Path

B6: Career Stories and Strategies II

Session Chair
Xiao Su
Computer Engineering Department Chair
San José State University

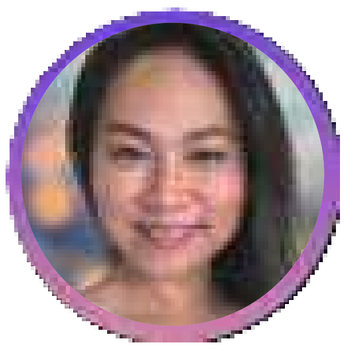
Location
ENGR 343

This session will provide attendees with an opportunity to gain professional and personal insights from women technical leaders 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 their experiences working in their respective industries to give attendees a broad perspective of different career options. They will also share personal and professional challenges faced, lessons learned, and successes achieved during their college years and careers. They will highlight what employers are looking for and how to land that first job as a college graduate.



Natasha Dsouza
Technical Product Manager - Risk Infrastructure
WePay - JP Morgan Chase

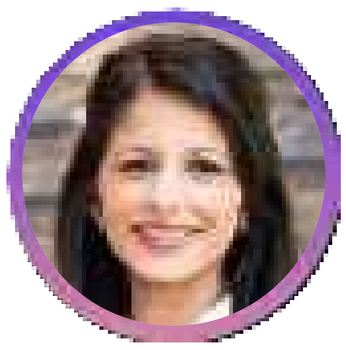
A passionate product manager, software engineer and tech enthusiast, Natasha recently joined WePay, a Chase company. She works as a Technical Product Manager on the company's Risk Infrastructure team. Previously, she led the Autonomous Driving Data and Perception Infrastructure teams at Apollo, and Baidu USA. A Spartan graduating with a Masters degree in Software Engineering from San José State University. Natasha worked as a Software Engineer prior to making the shift to Product Management.



Vy Li
Managing Member
MaxDecisions Inc.

Vy Li is currently a Managing Member at Constellation FinTech Holdings, and a Systems Engineering graduate student at Cal Poly Pomona. She holds a Bachelor of Science degree in Industrial and Systems Engineering from San José State University. Constellation FinTech is an end-to end lending company that provides the lending software platform and services for lenders and financial services. Vy specializes in U.S. financial regulations, including state lending and debt settlement, compliance, risk and legal guidelines. Previously, Vy worked as a manufacturing engineer in the aerospace and chemical industries.

She has 4 kids, ages 3-11. Her kids keep her active and give her perspective at home, school and work.



Sumaya Shakir
Vice President of Enterprise IT
GlobalLogic

Ms. Sumaya Shakir is Vice President of Information Technology at GlobalLogic Inc. of San Jose, California. She has over twenty years of global experience in business strategy and enterprise technologies. She is passionate about technology, strategy, and leadership. Her current key areas of interest are emerging technologies related to all things AI and Quantum Computing.

Sumaya received a Bachelor of Science degree with Honors in Computer Engineering from Bharadidasan University, India; and a Master of Science degree in Enterprise Software technologies from San José State University. She attended the Leavey School of Business, Santa Clara University for her executive MBA.

Sumaya is a voracious reader and enjoys outdoor adventures. She takes pride in mentoring individuals wishing to succeed in STEM careers.

7:30–8:30 am

Conference Registration & Continental Breakfast

8:30–9:30 am
Location: Ballroom A/B/C

Welcome and Opening Keynotes

California Leadership on Climate and Energy
Kate Gordon, Director of California Governor's Office of Planning and Research and Senior Advisor to the Governor on Climate

My Journey from China to Silicon Valley
Meagan Pi, Vice President, gTech Velocity, Google

9:30–9:45 am — Break

Tracks

Emerging Technologies

1 Innovating for the Environment	**2** The Future of Work	**3** Our Connected World
Concurrent Session A 9:45–10:45 am	**Session A1** Sustainable Development and Construction **Location: SU 3A**	**Session A2** Machine Learning Technologies **Location: SU Theater**	**Session A3** Ethics of AI **Location: ENGR 331**
10:45–11:00 am	Break		
Concurrent Session B 11:00 am–12:00 pm	**Session B1** A New Era in Air and Space Travel **Location: SU 3B**	**Session B2** Intelligent Systems **Location: SU 4A**	**Session B3** Virtual Reality **Location: SU 4B**

12:00–12:15 pm — Break

Lunch Keynote & WiE Roundtable Discussions

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

Fearless in Tech
Isaura S. Gaeta, Vice President of Security Research and General Manager of Intel Product Assurance & Security, Intel

1:30–2:00 pm — Break

Concurrent Session C 2:00–3:00 pm	**Session C1** Green Energy Generation and Storage **Location: ENGR 341**	**Session C2** Artificial Intelligence (Machine Learning) Applications **Location: ENGR 345**	**Session C3** Future of Blockchain **Location: ENGR 343**

3:00–3:15 pm — Break

Engineering Career Panels

	I	**II**
Concurrent Session D 3:15–4:45 pm	Software and Information Technology **Location: SU Theater**	Electronics and Semiconductor Equipment **Location: SU 4A**

4:45–5:00 pm — Break

5:00–7:00 pm
Location: Ballroom C

WiE Innovation Showcase & Networking Reception

		Professional Development	
	4 The Next Generation of Healthcare	**5** Career Planning	**6** Your Career Path
	Session A4 Robotics, Medical Devices and Diagnostics **Location: SU 1A**	**Session A5** Practice Networking for Career Success **Location: SU 2A**	**Session A6** Career Stories and Strategies I **Location: ENGR 341**
	Session B4 Diagnostics and Medicine **Location: ENGR 285**	**Session B5** Job and Internship Search - Online and Beyond **Location: ENGR 329**	**Session B6** Career Stories and Strategies II **Location: ENGR 343**
	Session C4 Flexible and Wearable Devices **Location: ENGR 285**	**Session C5** Design Your Future Career **Location: SU 2A**	**Session C6** Career Stories and Strategies III **Location: SU 4B**
	III Biomedical **Location: SU 1A**	**IV** Building, Infrastructure, and the Environment **Location: SU 3B**	

Concurrent Session

C

2:00–3:00 PM

Emerging Technologies

TRACK 1

Innovating for the Environment

C1: Green Energy Generation and Storage

Session Chair
Patricia Backer
Professor, Aviation and Technology
San José State University

Location
ENGR 341

With the increasing emphasis on green energy in the U.S., there is an increased focus on generation and storage issues. In this session, we will have a discussion of renewable batteries and the technical and commercial aspects of solar energy. This session will conclude with a discussion of the issues related to renewable energy storage and its impact on utilities.

How Do Rechargeable Batteries Work?

Maryam Moradi
Sr. Battery System Engineer
Amazon Lab126

Maryam is Sr. Battery System Engineer at Amazon Lab126. She did her post-doctoral study at MIT where she worked on Bio-templated materials for battery applications. She has a PhD degree in Electrical Engineering from the University of Waterloo, Canada.

Bridging the Technical and Commercial Aspects of Solar and Storage Energy

Emily Arnold
Senior Director, Optimization Engineering
8minute Solar Energy

Emily is a licensed Electrical Engineer with over 7 years of experience in utility-scale PV and storage development. At 8minute, she leads the optimization engineering team, bridging the technical and commercial considerations throughout the development process. Emily is responsible for bankability and LCOE focused optimization, driving best-in-class design and financeability. Previously she led Performance Engineering and Technology Analytics at Recurrent Energy. Over the years, she has supported 2.5+ GW of PV projects through COD, and has contracted 1+GWh of energy storage. Emily holds a B.S. degree in Electrical Engineering from the Milwaukee School of Engineering and an M.S. degree from Stanford University focused on renewable energy systems and energy efficiency.

The Complexities of Renewable Energy and Energy Storage Procurement

Maureen Quinlan
Principal Energy Transactions Analyst
Pacific Gas and Electric Company

Maureen Quinlan has held several roles at PG&E since 2013 including monitoring the wholesale electricity market, developing and executing the utility's energy storage strategy, and deploying innovative pilot projects. Currently, she is a Principal Energy Transactions Analyst at PG&E, where she is responsible for procuring the company's wholesale power purchase contracts including those for renewable energy and energy storage resources. Maureen is also a mentor for the U.S. State Department's TechWomen initiative, empowering women leaders in STEM from Africa, Central and South Asia, and the Middle East. Maureen holds a Master's degree in Environmental Management with a concentration in Energy from Duke University, and a B.A. degree in Environmental Studies from the University of North Carolina.

TRACK 2

The Future of Work

C2: Artificial Intelligence (Machine Learning) Applications

Session Chairs

Feruza Amirkulova
Assistant Professor, Mechanical Engineering
San José State University

Hongrui Liu
Assistant Professor,
Industrial and Systems Engineering
San José State University

Location

ENGR 345

Artificial intelligence (AI) and machine learning are impacting our daily lives in many different ways. There are an increasing number of companies that use AI and machine learning to improve their products, services and optimize operations. In this session, we have invited Dr. Sharon Kim from MathWorks to talk about how deep learning can achieve state-of-the-art accuracy in different domains; Dr. Cynthia Kuo will talk about the intersection of AI applications and regulation in the automotive and health industries; and Dr. Dulce Ponceleón from IBM Research to talk about natural language processing.

Applications and Challenges of Deep Learning Implementation

Sharon Kim
Application Engineer
MathWorks, Inc.

Sharon Kim holds Master of Science and PhD degrees in Biomedical Engineering from Columbia University, and a B.S. degree in Biomedical Engineering from Johns Hopkins. As an Application Engineer at MathWorks in Santa Clara, she supports MATLAB users in image and signals processing, machine learning, deep learning, and more. Prior to joining MathWorks, she studied resting state brain activity patterns by applying analysis methods such as dimensionality reduction and unsupervised machine learning to wide-field optical image data.

The Intersection of AI Applications and Regulation in Industries such as Automotive and Health

Cynthia Kuo
Corporate Entrepreneur and Innovation Lead
Infineon

Cynthia Kuo is a Corporate Entrepreneur and Innovation Lead at Infineon's Silicon Valley Innovation Center. She develops partnerships with startups and academic groups to explore new applications for Infineon's sensors. Previously, she co-founded Vibrado, a smart apparel startup. Vibrado's smart garments track and interpret body motion to provide instant, actionable feedback. Six professional athletic teams in the NBA and MLB deployed Vibrado's smart garments to help their players improve core skills. At Google, Cynthia created the first concept for Safe Browsing, a browser-based security warning that identifies phishing (web forgery) sites. Today, Safe Browsing is a part of Chrome, Firefox, Safari, and Gmail. It protects over four billion devices daily. Cynthia holds a PhD degree from Carnegie Mellon University and a B.S. degree from Stanford University.

Natural Language Processing

Dulce Ponceleón
Principal Research Staff Member
Scalable Knowledge Intelligence Group
IBM Research - Almaden

Dulce Ponceleón is a Principal Research Staff Member in the Scalable Knowledge Intelligence Group at IBM Research-Almaden. She is a Master Inventor, and a member of the IBM Academy of Technology. Her broad interests across different disciplines include natural language processing, machine learning, blockchain, and security. She led IBM's Content Protection team resulting in significant contributions to Blu-ray Content Protection Standard's consortium. While at Apple Computer, Inc., in the Advanced Technology Group, she contributed to QuickTime Conferencing's video and audio compression. She received her Master's degree and a Ph.D. degree in Computer Science from Stanford University. She earned her B.S. degree (Cum Laude) in Computer Science from Universidad Simon Bolivar, Caracas, Venezuela.

Concurrent Session

C

2:00–3:00 PM

Emerging Technologies

TRACK 3
Our Connected World

C3: Future of Blockchain

Session Chair
Younghee Park
Associate Professor, Computer Engineering
San José State University

Location
ENGR 343

Decentralized applications in blockchain have impacted various industry domains in digital payments, health business, agriculture, and automobile industries. The immutable and scalable blockchain platforms enable us to develop the most secure service for trading currencies and objects. This session will discuss the future directions of blockchain technologies with two industry speakers who are currently leading in blockchain technologies while introducing Hyperledger, an open-source project led by IBM.

QuarkChain to Meet Future Blockchain Technology

Anthurine Xiang
CMO and Co-founder
QuarkChain

Anthurine Xiang graduated from Shanghai Jiaotong University and Johns Hopkins University. Prior to founding QuarkChain, she worked for two years in finance on Wall Street and six years in the tech industry in Silicon Valley.

QuarkChain is the first public chain to implement state sharding. QuarkChain makes customization available for four factors: consensus, token economy, virtual machines, and distributed ledgers. QuarkChain has become a flexible, scalable, and user-friendly blockchain with a highly secure, decentralized, and highly efficient underlying architecture.
https://quarkchain.io/

Blockchain is About More than Crypto-currency - Introduction to Hyperledger Fabric, the Blockchain for Business

Morgan Bauer
Open-Source Contributor to Hyperledger
IBM

After contributing to Docker & Kubernetes for three years, Morgan has gained valuable insight into the varying culture around an open-source container technology. Pivoting towards blockchain technologies has landed Morgan in Hyperledger Fabric. Morgan is a maintainer on the core Docker Engine and also a founding contributor to the Kubernetes Service Catalog.

TRACK 4
The Next Generation of Healthcare

C4: Flexible and Wearable Devices

Session Chair
Lili He
Professor. Electrical Engineering
San José State University

Location
ENGR 285

Flexible and wearable electronics command increasing market attention in today's electronics arena. Examples of active applications include flexible displays, flexible cell phones/computers/digital cameras, wearable healthcare monitoring, and other flexible and wearable electronic systems. In the past decade, we have witnessed the rapid development of various powerful products in this area that have changed our daily lives, enhanced work efficiency, improved healthcare technology, and more. These emerging technologies hold strong attraction for engineering students exploring career opportunities. Our session speakers come from organizations at the frontier of research, development and production of flexible and wearable electronics.

Flexible Hybrid Electronics and Market Opportunities

Gity Samadi
R&D Program Manager
SEMI

Gity Samadi received her PhD degree in Engineering Physics from Vienna University of Technology in Vienna, Austria. She is an R&D Program Manager at SEMI where she is responsible for flexible hybrid electronics R&D. Prior to SEMI, she held various positions in the HDD industry ranging from NPI and test engineering to management and program management in companies including IBM, Hitachi Global Storage (HGST), Western Digital and Headway (TDK).

Fashion with Function: Product Development Considerations for Wearable Devices

Meeta Roy
Head of Strategy & Business Operations
Bose

Meeta Roy is the Head of Strategy and Business Operations at Bose Corporation, where she is responsible for defining and implementing the strategic objectives for the Consumer Wearable Audio division, and ensuring that her 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 in driving operational excellence, innovation, and program management.

Meeta is also the founder of MERORA, an apparel and accessories brand that encourages a culture of innovation and advocacy. Her designs 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 San José State University in 2003.

Sarah Wolfe Carr
Product Manager
Bose

Sarah Wolfe Carr is a Product Manager for Bose Corporation, where she is focused on open-ear audio. She recently served as the Program Manager for Bose Frames, which launched worldwide in 2019 and was named one of TIME magazine's Best Inventions. She is now responsible for product management and new concept development across the product line. Before joining Bose, Sarah worked as a Program Manager across many different product categories including cosmetics, wearables, autonomous vehicles, smart-kitchen devices, and audio. She also spent time at a consultancy specializing in industrial design and product innovation. Sarah's passion lies in finding creative ways to streamline workflows, increase team efficiency, and make cool things with even cooler people.

Concurrent Session

C

2:00–3:00 PM

Professional Development

TRACK 5
Career Planning

C5: Design Your Future Career

Location
SU 2A

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 José 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. degree in Counseling from Santa Clara University with an emphasis in Career Development. Currently she serves as the Associate Director for Career Education at San José 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, and instructional design.

TRACK 6
Your Career Path

C6: Career Stories and Strategies III

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

Location
SU 4B

This session will provide conference attendees with an opportunity to gain professional and personal insights from women technical leaders 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 experiences of working in their respective industries to give attendees a real-world perspective on different career options. They will also share personal and professional challenges faced, lessons learned, and successes achieved during their college years and careers. They will highlight what employers are looking for and how to land that first job as a college graduate.

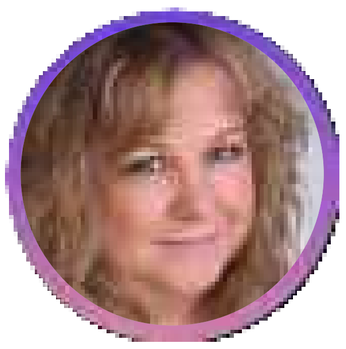
Elizabeth Kukka
Executive Director
Ethereum Classic Labs

As the Executive Director at ETC Labs, Liz manages a series of ongoing accelerator programs for blockchain and crypto-focused startups. In her role, Liz is able to apply her expertise as a mentor and coach to brainstorm and guide entrepreneurs in each Cohort, leveraging her vast industry network of senior tech executives, investors and professional service experts to meet, learn and possibly invest in the Cohort of startups. Formerly at IPlug & Play Tech Center, one of Silicon Valley's earliest and most respected tech accelerators, working in its nascent Insuretech Group as Head of Operations. In her management role, she designed programs, managed teams, mentored startups and collaborated with researchers and investors, scaling Plug & Play's growth and expanding its brand.

Erica Lockheimer
VP Software Engineering
LinkedIn Learning

During her more than 9 years at LinkedIn, Erica built the Growth Engineering team into a high performing 120-person team, focused on increasing membership, and deepening member engagement. In January 2018, she was promoted to Head of Engineering for the LinkedIn Learning team, formerly Lynda.com. She leads LinkedIn's Women In Tech (WIT) initiative, which is focused on empowering women in technical roles at 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.

Erica loves starting 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 recognized as one of the top 22 women engineers in the world by Business Insider. Erica is a Bay Area native, has 2 kids, loves to run and is a proud SJSU alumna with a B.S. degree in Computer Engineering.



Tina Panontin
Professor
San José State University

Dr. Tina Panontin is a Professor of Practice in the College of Engineering at San José State University. She came to SJSU following a distinguished career at NASA Ames Research Center that included 17 years as Chief Engineer. With her extensive, practical experience in the engineering, development, and management of complex systems, Dr. Panontin supports the Dean and faculty by creating cross-discipline research concepts and strategic partnerships and integrating experiential work within standard curricula. She enjoys working with students, through instruction and advising, and provides them opportunities for internships and networking. Dr. Panontin earned her BSME from Santa Clara University, and her MS and Ph.D. in Mechanical Engineering, both from Stanford University.

Anisha Seli
Principal Member of Technical Staff
Maxim Integrated

Anisha Seli graduated Summa Cum Laude from San José State University in the Summer of 2010 with an MS in Electrical Engineering. That same year, she had her first child and decided to spend a year as a stay-at-home mom.

She joined the Failure Analysis team at Maxim Integrated in 2012, where she is now a principal technical leader. She loves working on tough technical challenges such as debugging silicon failures which require expertise across various electrical engineering domains. She credits SJSU with providing her with a solid foundation that allows her to solve these technical challenges. She also mentors junior engineers in the team and is passionate about promoting and encouraging women in tech. Outside of work, she enjoys painting, singing, cooking, fundraising, and raising awareness for social causes and spending time with her family.

Concurrent Session

D

3:15–4:45 PM

Engineering Career Panels

PANEL I

Software & Information Technology

Session Chair
Xiao Su
Computer Engineering Department Chair
San José State University

Location
SU Theater

Babita Jain
Director, Software Quality
Agilent Technologies

Babita Jain is the Director of Quality for the Software and Informatics Division at Agilent Technologies. Babita has over 25 years of experience in software quality organizations with a reputation for designing, executing, and re-engineering testing processes to produce significant cost savings while driving successful development and launch of high quality, revenue-generating software products.

Prior to Agilent, she worked at HP Software where she was responsible for the quality of enterprise software products used by Fortune 500 companies.

Maria Kazandjieva
Engineering Manager
Netflix

Maria Kazandjieva is an Engineering Manager at Netflix where her team builds and delivers the browser-based video playback engine for netflix.com. Over the last three years, Maria built out her team of 12 and worked on diverse projects including launching Netflix in cars, enabling non-members to sample Netflix content, and helping create the technology behind the interactive movie *Black Mirror: Bandersnatch*.

Prior to that, Maria was a Senior Software Engineer working on adaptive video streaming algorithms. She holds a PhD in Computer Science from Stanford University and an undergraduate degree from an all-women's college on the East Coast.

On weekends, you can find Maria reading, kickboxing, snuggling her two cats, Foosball and Gemma, and learning to bake bread.

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 José State University.

Aparna Sinha
Director of Product Management, Google Cloud
Google

Aparna Sinha is Director of Product at Google Cloud and is the product leader for Application Development Platforms. Her teams are focused on transforming the way we work through innovation in platforms. She helped build Anthos/Kubernetes into a widely-adopted transformation engine for platform teams across industries. She joined Google from NetApp where she was Director of Product for storage automation and private cloud. Prior to NetApp, Aparna was a leader in McKinsey and Company's business transformation office working with CXOs on IT strategy, pricing, and M&A. Aparna holds a PhD in Electrical Engineering from Stanford and has authored several technical publications. She is Chair of the Governing Board of the Cloud Native Computing Foundation (CNCF).

Sonar Thekdi
VP of Operations
VMware

As the VP of Operations for VMware's Products organization, Sonar Thekdi spearheads strategy planning, business operations, and business transformation. Her team plays a critical role in defining and driving strategic, operational, and organizational excellence to scale the business with speed and deliver aggressive growth. Very importantly, her team helps perpetuate a culture of alignment and transformation that drives optimization across the company.

Prior to her current role, Sonar spent almost 19 years at Cisco in various Engineering and Operations roles for several multi-billion dollar businesses. Sonar is passionate about mentoring and sponsoring Women in Tech and actively drives these activities across VMware and her broader community. Sonar holds a BS in Computer Engineering from SJSU.

PANEL II
Electronics and Semiconductor Equipment

Session Chair
Jinny Rhee
Associate Dean, College of Engineering
San José State University

Location
SU 4A

Rose Castanares
VP of Business Management
TSMC

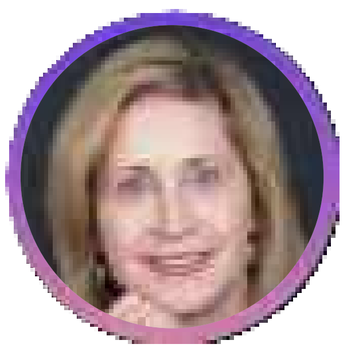
Rose joined TSMC in 1998 and was promoted to VP in 2015. She is proud to lead a team of engineers (50% women!!) who are Sales Business and Technical Managers. Currently, she is responsible for account management and sales for several system and fabless customers. Previously, she served as Senior Director in TSMC's 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 regional clients.

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 BS degree from the University of Illinois at Urbana-Champaign, Department of Materials Science and Engineering.

Candi Kristoffersen
VP of Global Products Engineering
Lam Research

Candi Kristoffersen has spent 25 years leading engineering teams in the development and release of process semiconductor equipment. Her current role is leading a global team of more than 300 engineers responsible for the concept, feasibility, development, design, and release of common subsystems used across Lam Research Product Divisions including mechanical, electrical, robotics and tool control software. Candi holds a Bachelor of Science degree in Mechanical Engineering from California State University Chico, and an MBA degree with a concentration in managing innovation and technology from Santa Clara University.



Lori Pouquette
VP of Global Customer Operations
Xilinx

Lori Pouquette leads the Global Customer Operations organization at Xilinx, responsible for demand management and fulfillment. She is passionate about building and transforming teams, working to define and execute a winning strategy. Prior to joining Xilinx, Lori has been a successful high-tech executive in a wide variety of positions involving operations, marketing, sales, and engineering at startup and public companies including ECnet, Arrow Electronics, and Megatest. She holds an MBA degree and a Bachelor of Science degree in Marketing with a Minor in Cybernetic Systems from San José State University.

Ellie Yieh
Corporate Vice President
Applied Materials Fellow
Applied Materials

Ellie Yieh is Corporate Vice President for Advanced Product Technology Development within the New Markets and Alliances organization 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. In addition, she leads the company's R&D efforts for developing new innovations that will drive future business opportunities. She is also a board member for Applied Ventures, LLC, the company's venture capital fund. In 2018, Yieh was awarded the honorary designation of Applied Materials Fellow for her outstanding technical contributions that have been vital to the company's success.

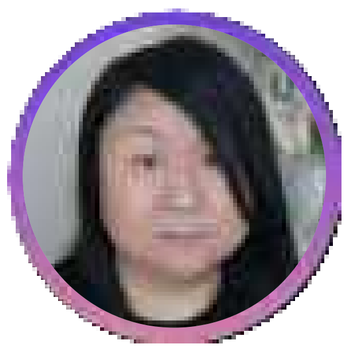
Ellie is a member of the advisory boards for UC Berkeley's College of Chemistry and the Silicon Valley Women in Engineering group at San José State University. She received a Bachelor of Science degree in Chemical Engineering from UC Berkeley and holds more than 100 semiconductor engineering patents. 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 "Woman Worth Watching" by *Profiles in Diversity Journal*.

Concurrent Session

D

3:15–4:45 PM

Engineering Career Panels



Zhan Yu
Director of Engineering
Marvell Semiconductors

Zhan Yu is the Director of Engineering at Marvell Semiconductor. She sets up multi-site design centers and has started and built mature cross-functional teams. From 2011 to 2013, Zhan was the Director of Digital Power at Monolithic Power Systems where she proto-typed MPS's first digitally- controlled DC-DC converters and designed for products.

Zhan holds a PhD in Electrical Engineering from UCLA and MBA degrees from INSEAD and Tsinghua University in Tsinghua-INSEAD EMBA program.

Maggie Neighbors
Senior Scientist
Genentech

Maggie Neighbors is a Senior Scientist at Genentech, where for the past six years, she has led cross-functional teams to develop bio-markers for therapeutics in respiratory diseas-es such as IPF. Prior to that, she was Director of Biology and Pharmacology at the biotech company Maxygen, focused on discovering and developing next-generation drug candidates for autoimmune disorders. She holds a PhD in Immunology from the University of Glasgow, Scotland; and completed her postdoctoral training in Immunology at DNAX Institute in Palo Alto, California. She is a wife and mother of two teenage girls, and continues to be inspired to make them proud of her, and to deliver science that helps get the right drug to the right patient at the right time.

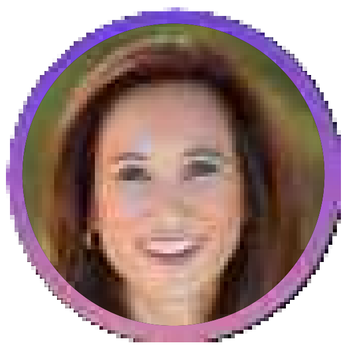
PANEL III
Biomedical

Session Chair
Katy Kao
Associate Professor
Chemical and Materials Engineering
San José State University

Location
SU 1A

Eurie Hong
VP, Genomics
Ancestry

Eurie Hong, Ph.D. is a scientist passionate about unlocking biological insights from genomic data. At Ancestry, she leads a team of scientists who leverage genomic data from 16+ million individuals, 100+ million pedigrees, and 20+ billion records to help individuals on their family history and health journeys. As a researcher in the Dept. of Genetics at Stanford University School of Medicine, Dr. Hong led teams who built bioinformatics tools to analyze & integrate functional ge-nomics data. In addition, she has worked on methods to assign functional annotations in the genomes of diverse organisms, including bak-er's yeast and humans. Dr. Hong received a B.S. with Honors in Biological Sciences at Stanford University and Ph.D. in Molecular Genetics & Cell Biology at the University of Chicago.



Sandra Tang
R&D Researcher
Agilent Technologies

Sandra Tang is a Research Scientist in Agilent Research Labs, part of Agilent Technologies. Her current role involves investigating lead-ing-edge technologies that will differentiate her company's products from its competitors. During her tenure at Agilent Technologies, she has contributed firmware and software to several products in their Mass Spectrometry, Pathology, and Genomics Divisions. Prior to joining Agilent, she was a research scientist and systems engineer with Lockheed Martin.

Sandra holds a PhD in Physical Chemistry from the University of Washington, Seattle; and a BS degree in Chemistry from UCLA.

Joumana Zeid
Director, Early Development Team Leader
Aimmune Therapeutics

Joumana Zeid has 15 years of experience in the pharmaceutical industry working on drug and combination product development. She started her career at Genentech where she held a variety of roles in Bioprocess Development, Device Development, and Portfolio Management & Operations. Joumana then transitioned to working for smaller companies including Plexxikon and Achaogen where she had Project Management and Team Leadership roles. She is currently a Director and Project Team Leader in the Product and Portfolio Management organization at Aimmune Therapeutics where she is responsible for leading the cross-functional early development teams that develop the company's clinical assets. Joumana holds a Master of Science degree in Chemical Engineering from SJSU and an MBA degree from UNC Kenan-Flagler.

Jill Bicknell
Managing Engineer
EOA, Inc.

Jill Bicknell, P.E., is a Water Resources Engineer and Manager at EOA, Inc. in Sunnyvale, California. She has worked extensively in the areas of stormwater quality and flow controls, water pollution prevention, watershed management, and stormwater permit compliance for nearly 30 years. She has served as the Assistant Program Manager for the Santa Clara Valley Urban Runoff Pollution Prevention Program, an association of 15 local agencies, for over 20 years. She provides technical assistance, guidance and training to municipal agencies on implementation of low-impact development techniques, green infrastructure planning and design, and stormwater capture and treatment. Jill has a Bachelor of Science degree in Environmental Engineering from the University of Vermont and a Master of Science degree in Water Resources Engineering from Stanford University.

Christina Chen
Construction Program Manager
Facebook

Christina Chen is a Construction Program Manager on the Data Center Build Team at Facebook. She oversees the strategic planning and launch of major retrofit projects across a growing global data center fleet. Before joining Facebook, she spent her early career managing construction projects for commercial and heavy civil contractors. A Texas native, Christina moved to California to pursue a Bachelor of Science degree in Civil Engineering at UC Berkeley and has called California home ever since. She also holds a Master of Science degree in Civil Engineering from Stanford University and has served as an advisor to the SJSU chapter of Tau Beta Pi.

PANEL IV
Building, Infrastructure, and the Environment

Session Chair
Thalia Anagnos
Vice Provost, Undergraduate Education
San José State University

Location
SU 3B

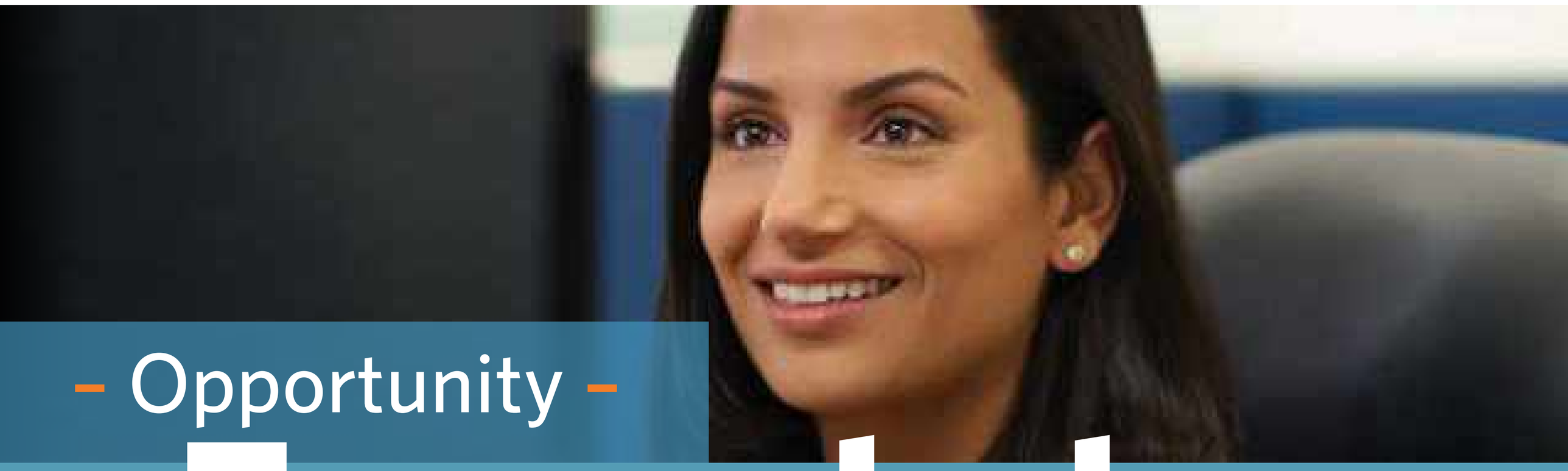
Inderpreet Chaggar
Lead Structural Engineer
Carollo Engineers

Inderpreet Chaggar is a San José State University alumna (go Spartans!) and received her Master of Science degree from UC Berkeley. She has over 12 years of experience in executing Civil/Structural Engineering and Construction practices at various levels. She is currently a Lead Structural Engineer with Carollo Engineers. At Carollo, she works with various municipalities, within and outside of California, to design/construct/retrofit water and wastewater facilities. Inderpreet also performs seismic evaluation and condition assessment of existing structures. Prior to Carollo, she was a Blast-resistant Engineer as part of the Technical Specialist Team at Bechtel. On a personal note, she is currently training to compete in her third half-marathon later this year.

Soma Goresky
Associate Geotechnical Engineer
Pacific Crest Engineering

Soma Goresky has been practicing geotechnical engineering in the Bay area for over 30 years, working on a wide variety of projects from residential construction to bridges, dams, and most recently, the challenges of coastal engineering. Her career has focused on working as part of development teams in geologically-challenging environments to aid in the design and construction of mitigations for a wide variety of geologic and geotechnical hazards. Her specialty and passion lie in the investigation, evaluation, and remediation of landslides.

Soma has a Master's degree from the Department of Civil Engineering at San José State University. She highly valued the commitment of her professors who were able to model the balance between technical expertise and the practical world of engineering.



– Opportunity –

Expanded

The world's leading companies bring their most complex technology challenges to Applied. Working hand-in-hand with customers we earn opportunities to identify and provide solutions to their toughest challenges. Great results are achieved together and the breakthroughs are felt around the globe. Shape the future at Applied Materials.

appliedmaterials.com/jobs

APPLIED MATERIALS®
make possible

Accelerate

Together

In the technology industry, only 13% of engineers and 26% of computer scientists are women.* As a member of that industry, it's our responsibility to help get those numbers up—way up.

We hire, develop and promote women engineers, providing stable and rewarding careers at the forefront of technology. If you're interested in helping make nearly every advanced chip on the planet, join us. And while you're here, let's make some advancements of our own.

Accelerate change with us.
lamresearch.com/careers

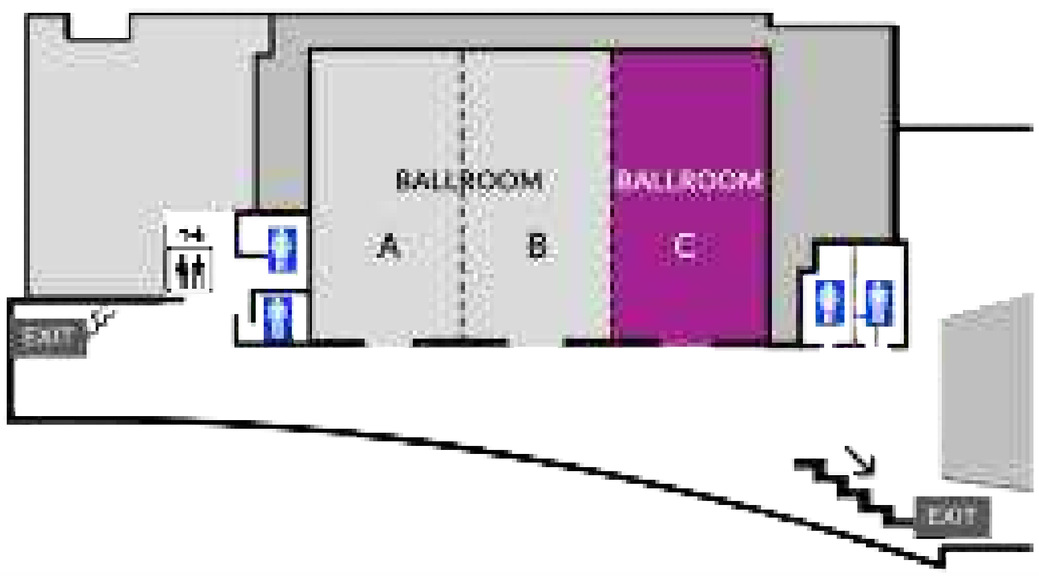
*U.S. Department of Labor, Bureau of Labor Statistics

Lam® RESEARCH

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 C (Student Union 2nd Floor)



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. 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

75 billion devices are expected to be connected to the Internet by 2025. Each device includes sensors that collect data, interact with the environment, and communicate over a network. The Internet of Things (IoT) is the network of these connected devices. These smart, connected devices generate data that IoT applications use to aggregate, analyze, and deliver insight, which helps drive more informed decisions and actions.

The Cisco IoT portfolio provides an integrated architecture of hardware, software, and security offerings to safely and securely connect our world. Cisco will be showing how the connectivity behind the scenes impacts your everyday life. The demo features different aspects of the Cisco IoT portfolio to connect and monitor devices across connectivity types, and to manage the extraction of data in a secure fashion.

With the Google Assistant, you can enjoy entertainment, find answers, manage everyday tasks, and easily control smart home devices–all with 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 Google Assistant can also help in situations where you may not speak the local language with interpreter mode. Today's demonstration will give insight into how the Google Assistant is always learning and improving to help get things done faster and easier on the go, the car, and at home.

KLA is a place for curiosity, intellectual challenges and industry transformation. Whether you're an experienced engineer, renowned scientist or a new college graduate, you will have opportunities at KLA to guide innovations forward—accelerating tomorrow's electronic devices and making technology accessible to all.

KLA develops industry-leading equipment and services that enable innovation throughout the electronics industry. We provide advanced process control and process-enabling solutions for manufacturing wafers and reticles, integrated circuits, packaging, printed circuit boards and flat panel displays. In close collaboration with leading customers across the globe, our expert teams of physicists, engineers, data scientists and problem-solvers design solutions that move the world forward. Visit careers.kla.com.

Micron Technology, Inc. is an industry leader in innovative memory and storage solutions. Through our global brands – Micron® and Crucial® – our broad portfolio of high-performance memory and storage technologies, including DRAM, NAND, 3D XPoint™ memory and NOR, is transforming how the world uses information to enrich life. Backed by more than 40 years of technology leadership, our memory and storage solutions enable disruptive trends, including artificial intelligence, 5G, machine learning and autonomous vehicles, in key market segments like mobile, data center, client, consumer, industrial, graphics, automotive, and networking. Our common stock is traded on the Nasdaq under the MU symbol. To learn more about Micron Technology, Inc., visit micron.com.

Intel, a leader in the semiconductor industry, is shaping the data-centric future with computing and communications technology that is the foundation of the world's innovations. The company's engineering expertise is helping address the world's greatest challenges as well as helping secure, power, and connect billions of devices and the infrastructure of the smart, connected world – from the cloud to the network to the edge and everything in between. Intel continues to evolve, and diversity and inclusion are among the most important forces driving our transformation. Our commitment to diversity and inclusion comes from our conviction that workforce representation of women, underrepresented minorities, and protected classes is the key to innovation and helps Intel in our mission to drive the future. The value of diversity and inclusion reaches far beyond the boundaries of Intel and impacts our wider communities and the entire technology industry.

Help us create the next amazing experience! We're looking for talented people in many fields—electrical, industrial, mechanical engineering, just to name a few. Are you passionate about security, data, AI, virtual reality, or high-performance computing? Stop by the Intel booth at the Innovation Showcase to check out our demos and meet some of our rock star employees and learn about their experience working at Intel. Learn more at intel.com/jobs.

From smartphones and tablets to wearables and automobiles, it's hard to go more than a few hours without using a semiconductor-enabled device. The semiconductor industry touches nearly every person on the planet as chipmakers continue to push the limits of what's possible and aspire to change the world through their products. As a trusted, collaborative partner to the world's leading semiconductor companies, Lam Research is a fundamental enabler of the silicon roadmap. In fact, today, nearly every advanced chip is built with Lam technology. Our innovative wafer fabrication equipment and services allow chipmakers to build smaller, faster, and better-performing electronic devices. We combine superior systems engineering, technology leadership, a strong values-based culture, and unwavering commitment to customer success to accelerate innovation, enabling our customers to shape the future.

Marvell first revolutionized the digital storage industry by moving information at speeds never thought possible. Today, that same breakthrough innovation remains at the heart of the company's storage, processing, networking and security solutions. With leading intellectual property and deep system-level knowledge, Marvell's semiconductor infrastructure solutions continue to transform the enterprise, cloud, automotive, industrial, and 5G markets. To learn more, visit: https://www.marvell.com/.

NETGEAR® Inc. is proud to be a sponsor of the 2020 Silicon Valley Women in Engineering Conference. For over 20 years, NETGEAR has been an industry leader in networking technologies for homes, businesses, and service providers around the world. Our focus on innovation and high performance makes it possible to deliver a wide range of powerful products, including WiFi 6- and 5G-compatible solutions, AV over IP switches, pro gaming routers, and even smart digital canvases. We strive to simplify and improve lives with cutting-edge yet easy-to-use WiFi and networking technology.

NETGEAR will be showcasing its award-winning Orbi Mesh WiFi Systems, praised for their innovative design and engineering. They extend reliable and fast WiFi throughout the home using industry-first tri-band architecture. Joining Orbi is Meural, a smart digital canvas on which users can display their own photos or artwork from Meural's signature art library.

Insight Managed Switches, which provide power and connectivity via Ethernet and are the most versatile and easy-to-use in the market, will also be on display. Attendees will also be able to see NETGEAR's mobile hotspots, designed to provide powerful and secure WiFi on the go, as well as Nighthawk Pro Gaming Routers, built to reduce lag and latency spikes to ensure the best experience for gamers.

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.

SYNOPSYS®

Synopsys, Inc. is the Silicon to Software™ partner for innovative companies developing the electronic products and software applications we rely on every day. Synopsys has a long history of being a global leader in electronic design automation (EDA) and semiconductor IP and is also growing its leadership in software security and quality solutions. The Internet of Things, autonomous cars, wearables, smart medical devices, machine learning and computer vision are just a few of the breakthrough markets where our products play an important role. The Verification Continuum platform, comprised of best-in-class technology for simulation, verification IP, emulation, advanced debug, static, formal, prototyping and virtual prototyping is uniquely positioned to deliver high-performance solutions for early software bring-up on complex SoCs. The Verification Continuum Platform is used by design engineers at major semiconductor companies, innovative start-ups, and mega-disruptors to verify next-generation system-on-chips (SoCs).

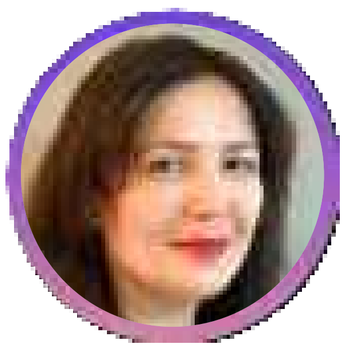
XILINX

At Xilinx, we are leading the industry transformation to build an adaptable, intelligent world. ARE YOU bold, collaborative, and creative? At Xilinx, we hire and develop leaders and innovators who want to revolutionize the world of technology. We believe that by embracing diverse ideas, pushing boundaries, and working together as ONEXILINX, anything is possible.

Our culture of innovation began with the invention of the Field Programmable Gate Array (FPGA), and with the 2018 introduction of our Adaptive Compute Acceleration Platform (ACAP), has made a quantum leap in capability, solidifying our role as the adaptable platform supplier of choice. From the start, we have always believed in providing inventors with products and platforms that are infinitely adaptable. From self-driving cars, to world-record genome processing, to AI and big data, to the world's first 5G networks, we empower the world's builders and visionaries whose ideas solve everyday problems and enhance people's lives.

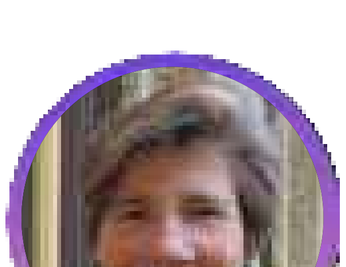
If you are PASSIONATE, ADAPTABLE, and INNOVATIVE, Xilinx is the right place for you! Come meet the faces of Xilinx! For more information visit: www.xilinx.com/jobs

Committee Members



Feruza Amirkulova
Assistant Professor
Mechanical Engineering
San José State University

Dr. Feruza Amirkulova joined SJSU as an Assistant Professor of Mechanical Engineering in Fall 2018. She received Bachelor and Master of Science degrees in Mathematics, and a PhD in Techniques (Civil Engineering) from Samarkand State University in 1995 and 2000 respectively; and Master of Science and PhD degrees in Mechanical and Aerospace Engineering from Rutgers University in 2010 and 2014 respectively. Feruza was a Post-doctoral Fellow in the Physics and Astronomy Department at Vassar College from 2015 to 2016. She teaches a Dynamic Systems Vibration and Control Course. Her areas of research include: 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.



Thalia Anagnos
Vice Provost
Undergraduate Education
San José State University

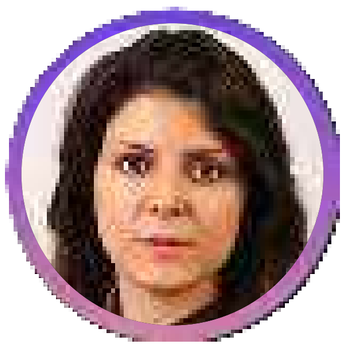
Dr. Thalia Anagnos is the Vice Provost of Undergraduate Education at San José State University. She is a civil engineer with a focus on earthquake engineering and has focused her research on regional losses from future earthquakes and the risk due to the collapse of older concrete buildings. At SJSU, she has taught a range of courses in mechanics, statistics and probability, design, and technical writing. She recently co-authored a sophomore-level engineering textbook that is completely online and incorporates interactive technologies for presenting concepts and assessing student work.

Patricia Backer
Professor
Aviation and Technology
San José State University

Dr. Patricia Backer has been a faculty member at San José State University since 1990 and has held positions as an Assistant Professor, Associate Professor, Professor, Department Chair, and Director. Before coming to SJSU, she worked as a high school Science and Mathematics instructor. Her research interests are in STEM education and factors that influence success in college.

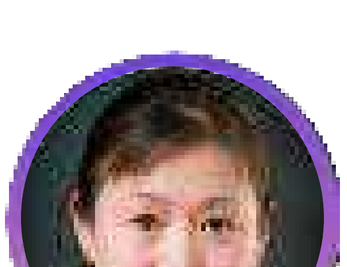
Maria Chierichetti
Assistant Professor
Aerospace Engineering
San José State University

Dr. Maria Chierichetti is an Assistant Professor in the Aerospace Engineering Department of the College of Engineering at San José State University. Her research interests involve various aspects of aerospace structural design and vibrations, with particular emphasis on integrating machine learning techniques into the analysis of vibrations. She has published several papers in refereed journals and international conference proceedings in the above areas. She is an Amelia Earhart Fellow from Zonta International. Prior to joining SJSU, Maria was a member of the faculty at the University of Cincinnati and at Worcester Polytechnic Institute. She holds PhD and Master of Science degrees in Aerospace Engineering from the Georgia Institute of Technology; and Master and Bachelor of Science degrees in Aeronautical Engineering from Politecnico di Milano, Italy.



Fatemeh Davoudi
Assistant Professor
Aviation and Technology
San José State University

Dr. Fatemeh Davoudi is an Assistant Professor of Manufacturing Systems in the Department of Aviation and Technology at San José State University. She holds a PhD degree in Industrial Technology with a minor in Statistics, a Bachelor of Science degree in Mathematics, and a Master of Science degree in Engineering & Technology Management. Her research interests lie in applied machine learning and predictive modeling of industrial systems, quality management and lean manufacturing, and statistical modeling of industrial occupational incidents for improving safety outcomes. Currently, she is leading the Machine Learning & Safety Analytics Lab in the Technology Department at SJSU.



Winncy Du
Professor
Mechanical Engineering
San José State University

Dr. Winncy Du is Director of the Robotics Lab at San José State University. She received her PhD degree from Georgia Tech, two Master of Science degrees from West Virginia University, and two Bachelor of Science degrees from Jilin University. She is the sole author of a 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 José State University

Dr. Sheryl Ehrman is the Don Beall Dean of the Charles W. Davidson College of Engineering at San José 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 degree in Chemical Engineering from UC Santa Barbara and a PhD 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 fellow of the American Association for Aerosol Research.

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 Research Scholar at the Indian Institute of Technology, Bombay. She served as a Fulbright Alumni Ambassador from 2013-16.

Stacy Gleixner
Professor, Materials Engineering and
College of Engineering Special Projects
Chair, 2020 Silicon Valley Women in
Engineering Conference
San José State University

Stacy Gleixner is the 2020 Women in Engineering Conference Chair. She is a Professor in Materials Engineering at San José State University. Previously, she was Associate Vice President for Student and Faculty Success at SJSU. She managed support services for faculty and students in Academic Affairs and co-led the University's student success and graduation initiatives. Prior to that, she was Chief of Staff to SJSU's President (2014-2016). Stacy joined SJSU as a professor in Materials Engineering in 1999. She has served as the Associate Chair of the Chemical and Materials Engineering Department and Director of San Jose State's Microscale Process Engineering Lab. Throughout her career, Stacy has worked on student success issues and supporting women and underrepresented students in STEM. A first-generation college student herself, she is passionate about using data and innovative strategies to ensure that all students succeed.

Hyeran Jeon
Assistant Professor
Computer Engineering
San José State University

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

Katy Kao
Associate Professor
Chemical and Materials Engineering
San José State University

Katy Kao joined the Department of Chemical and Materials Engineering at San José State University as an Associate Professor. Prior to joining SJSU, she was an Associate Professor in the Department of Chemical Engineering at Texas A&M University. She received a Bachelor of Science degree in Chemical Engineering from the University of California, Irvine; a PhD degree in Chemical Engineering from the University of California, Los Angeles; and was a postdoctoral fellow at Stanford University. Her work focuses on microbial adaptation for biotechnology and biomedicine. She was awarded the National Research Service Award by the National Institutes of Health, the National Science Foundation CAREER Award, the TEES Young Select Faculty Award, and several teaching awards including the Fluor Distinguished Teaching Award and the Association of Former Students Distinguished Achievement Award.

Magdalini Eirinaki
Professor and Associate Chair
Computer Engineering
San José State University

Dr. Magdalini Eirinaki is a Professor and Associate Chair in the Computer Engineering Department of the College of Engineering at San José State University. Her research interests include the areas of recommender systems and machine learning and in particular, social recommender systems, aspect-based recommendations, social network mining, deep learning applications, and personalization. She is the recipient of the 2019 Newnan Brothers Award for Faculty Excellence, the 2017 Applied Materials Award for Excellence in Teaching, and the SJSU Distinguished Faculty Mentor Award in 2015 and 2019.

Lili He
Professor
Electrical Engineering
San José State University

Lili He is a Professor in the Department of Electrical Engineering at San José State University. Lili holds a Bachelor of Science degree in Semiconductor Physics from Nanjing University, China. She received Master of Science and PhD degrees in Electrical Engineering from New York State University at Buffalo. Her research areas include semiconductor devices, Nanoelectronics, Solar Cells and related systems.

Hongrui Liu
Assistant Professor
Industrial and Systems Engineering
San José State University

Hongrui Liu received her PhD degree in Industrial and Systems Engineering from the University of Washington in 2010. She is an Assistant Professor in Industrial and Systems Engineering at San José State University. Her primary research interests are optimization modeling, computing algorithms, data analytics, machine learning and artificial intelligence, and their application in solving different industry problems.

Jinny Rhee
Associate Dean
College of Engineering
San José State University

Dr. Jinny Rhee is currently the Associate Dean of the College of Engineering at San José State University. 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 degree in Mechanical Engineering from Stanford University in 1995.

Blanca Sanchez-Cruz
Director of Student Programs
College of Engineering
San José State University

Ms. Sanchez-Cruz joined the College of Engineering at San José State University as Assistant Director for Student Support Programs. She has supported college efforts in areas of retention, graduation and inclusion, especially among underrepresented student populations. Her many roles have included: 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. Previously, she worked 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 holds an M.A. degree in International Service and Leadership (2008) from Roehampton (UK). She received a B.A. degree in Global Studies (2005) and a B.S. degree in Hospitality Management (2003) from San José State University.

Younghee Park
Associate Professor
Computer Engineering
San José State University

Younghee Park is an Associate Professor in Computer Engineering at San José State University, and a Visiting Professor at IBM Almaden Research Center. She received her PhD degree in Computer Science from North Carolina State University in 2010. Younghee has conducted a broad range of research in security areas including SDN/NFV security and IoT security. She was awarded 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. Younghee is a Coordinator for the Cybersecurity Certificates Program supported by the NIETP. She received the SJSU Distinguished Faculty Mentor Award in 2017 and the Faculty Award for Excellence in Scholarship in 2018. She was the Kordestani Endowed Chair and recipient of the College of Engineering Research Professor Award (2016 to 2017).

Liat Rosenfeld
Assistant Professor
Chemical Engineering
San José State University

Liat Rosenfeld is an Assistant Professor in the Chemical and Materials Engineering Department at San José State University. She received her PhD degree in Chemical Engineering from the Technion, Israel Institute of Technology. Liat completed her post-doctoral fellowship in the Chemical Engineering Department at Stanford University. Professor Rosenfeld's research activities involve complex fluids and complex fluids interfaces; interfacial dynamics and rheology; and Microfluidics for next-generation medical, electromechanical and energy applications. Currently, Professor Rosenfeld is teaching Transport Phenomena, Unit Operations and Mathematical Methods in Chemical Engineering at SJSU.

Melinda Simon
Assistant Professor
Biomedical Engineering
San José State University

Melinda Simon is an Assistant Professor in the Biomedical Engineering Department at San José State University. She was awarded a PhD degree in Biomedical Engineering from UC Irvine, and completed post-doctoral work at the Stanford University School of Medicine and Lawrence Livermore National Laboratory. Dr. Simon's lab uses microfluidics to produce models of tumors to improve the accuracy of in vitro drug testing and is working to develop vascularized engineered tissue. Dr. Simon teaches classes in the areas of physiology, biotransport phenomena, biological and medical polymers, and microfluidics.

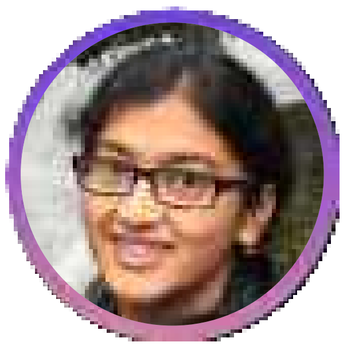
Birsen Sirkeci
Associate Professor
Electrical Engineering
San José State University

Birsen Sirkeci is an Associate Professor in the Department of Electrical Engineering at San José State University. She received her PhD degree from Cornell University in Ithaca, NY, in 2006. Prior to joining SJSU, she was a postdoctoral researcher at the University of California at Berkeley. Her main research lies in the areas of wireless communications, sensor networks, statistical signal processing, and machine learning.

Xiao Su
Computer Engineering Department Chair
San José State University

Dr. Xiao Su joined San José State University in Fall 2002. She has served as the Chair of the University's Computer Engineering Department since Spring 2014. Leading the largest department in the college, she has embraced the challenge of the explosive surge in student enrollment to grow her faculty team, develop new curricular areas, and enrich department offerings to teach the state-of-the-art technologies in fast-evolving engineering disciplines.

Dr. Su conducts research in broad areas of distributed systems, multimedia communications, network security, and machine learning. Dr. Su has served as a Principal or Co-principal Investigator in multiple grants totaling $3M, from the National Science Foundation (NSF), NASA, and the IT industry. She is a past recipient of the NSF CAREER Award.



Mahima Agumbe Suresh
Assistant Professor
Computer Engineering
San José State University

Mahima Agumbe Suresh joined San José State University as an Assistant Professor in August 2018. She received her PhD degree 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. Mahima's research interests include algorithms, protocol design and modeling, and system design for cyber-physical systems and the Internet of Things. Her work has been published in several peer-reviewed conferences and journals, and she has served as a program committee member at several conferences.

Belle Wei
Carolyn Guidry Chair of Engineering Education and Innovative Learning, College of Engineering
San José State University

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 for ten years. She is currently Carolyn Guidry Chair in Engineering Education and Innovative Learning at SJSU.

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 San Francisco/Silicon Valley region.

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

Wencen Wu
Assistant Professor
Computer Engineering
San José State University

Wencen Wu is an Assistant Professor in the Computer Engineering Department at San José State University. Her research interests include systems and control theory, robotics, and artificial intelligence as applied to intelligent autonomous multi-robot systems, autonomous driving, and distributed parameter 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 PhD degree from the Georgia Institute of Technology in 2013.

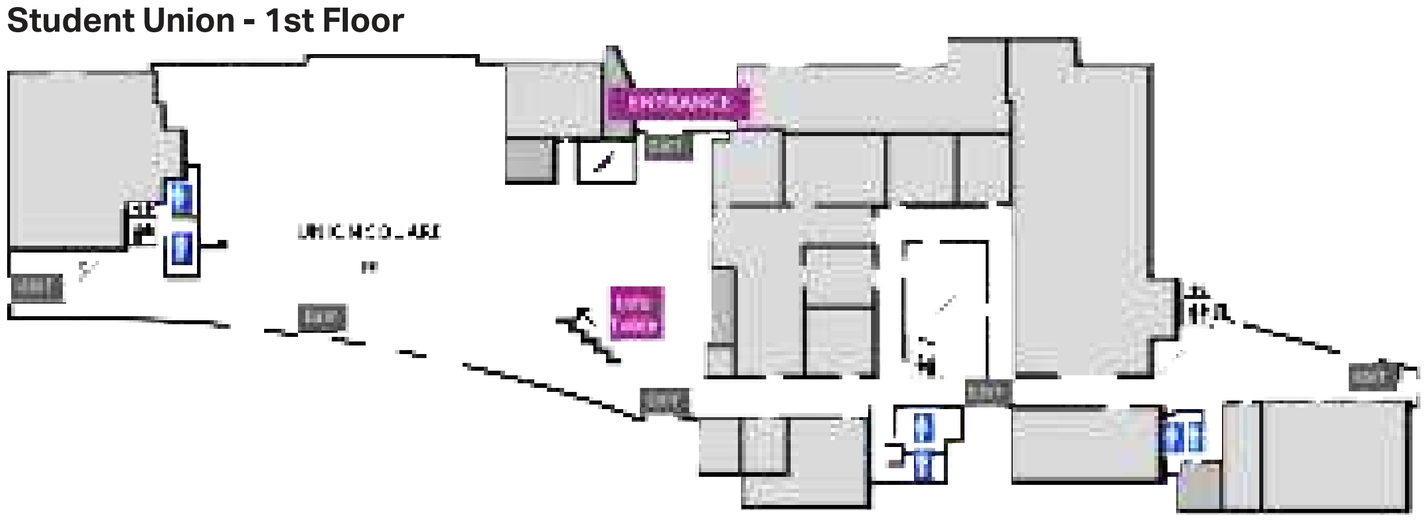
Event and Session Locations

SJSU Campus

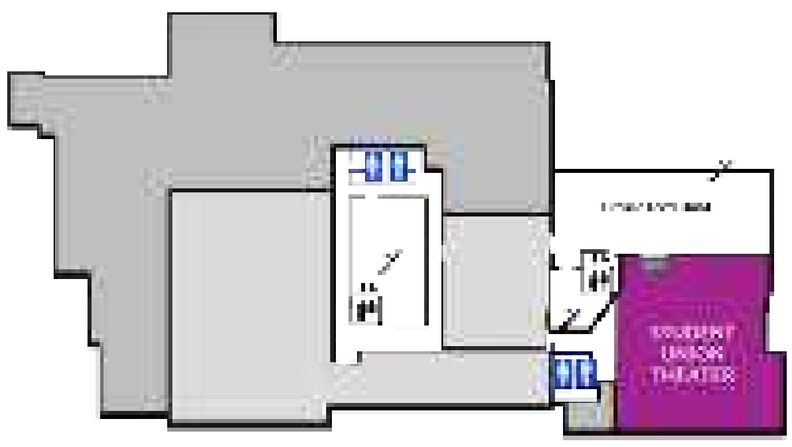
Student Union

Student Union - 2nd Floor

Student Union - 1st Floor

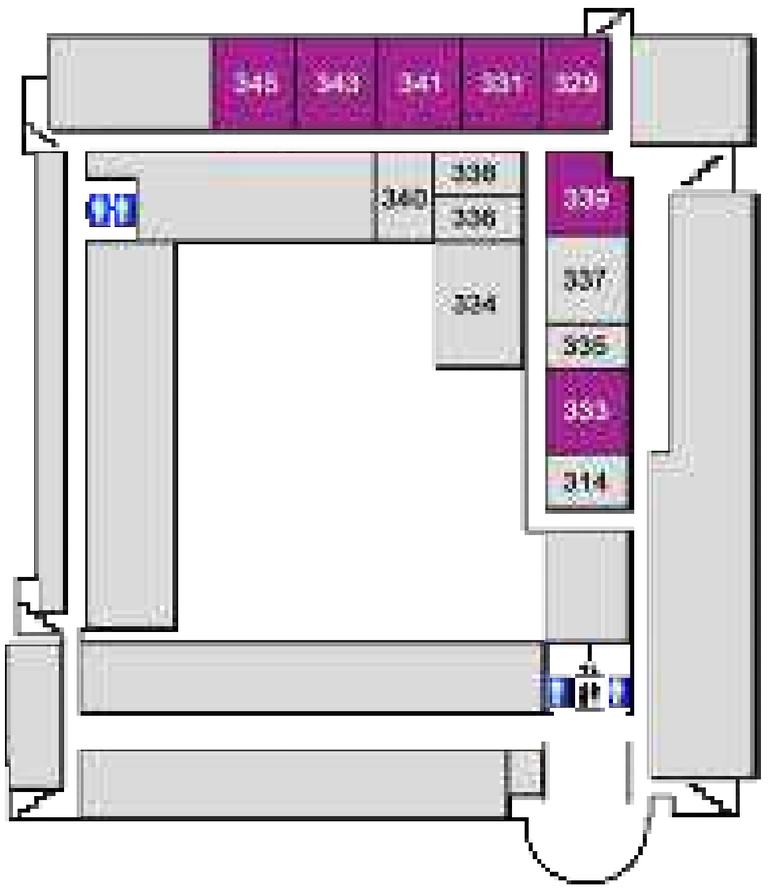


Student Union - Ground Floor

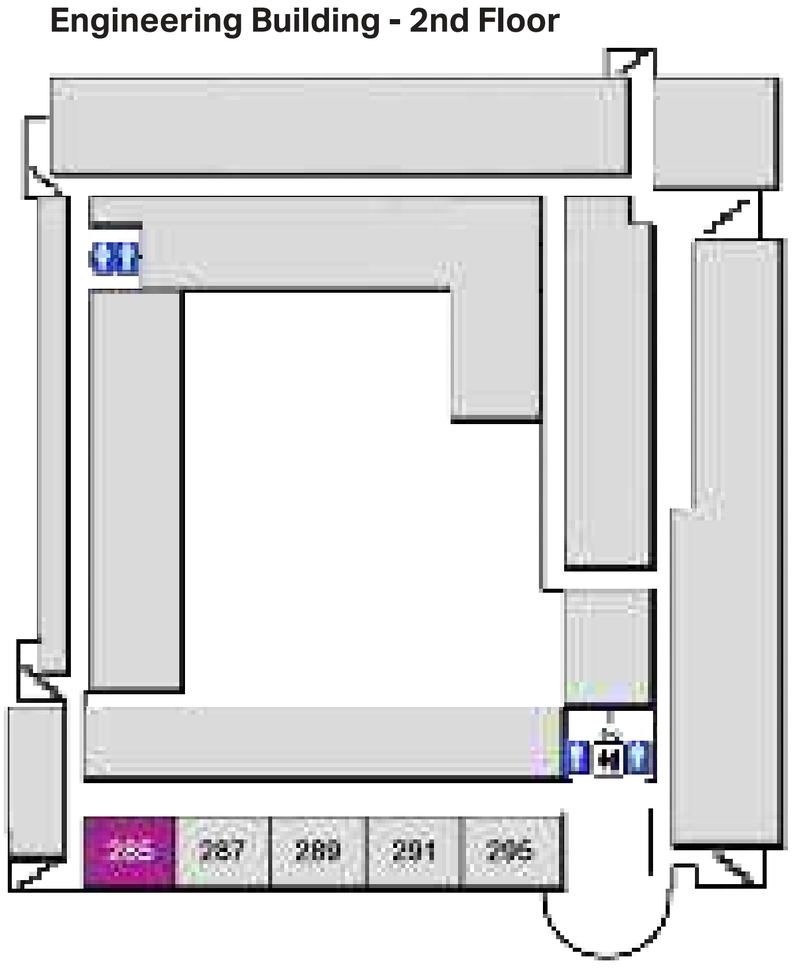


Engineering Building

Engineering Building - 3rd Floor



Engineering Building - 2nd Floor



A Powerful Platform for Amazing Performance

Performance. To get it right, you need a foundry with an **Open Innovation Platform®** and process technologies that provides the flexibility to expertly choreograph your success. To get it right, you need TSMC.

It is TSMC's mission to be the **Trusted Technology and Capacity Provider** of the global logic IC industry for years to come. In this regard, TSMC assures your products achieve maximum value and performance whether your designs are built on mainstream or highly advanced processes.

Product Differentiation. To drive product value, you need a foundry partner who keeps your products at their innovative best. TSMC's robust platform allows you to increase functionality, maximize system performance and differentiate your products.

Faster Time-to-Market. Early market entry means more product revenue. TSMC's DFM-driven design initiatives, libraries and IP programs, together with leading EDA suppliers and manufacturing data-driven PDKs, get you to market in a fraction of the time it takes your competition.

Investment Optimization. Every design is an investment. Function integration and die size reduction help drive your margins; it's simple, but not easy. TSMC continuously improves its process technologies to get your designs produced right the first time.

Find out how TSMC can drive your most important innovations with a powerful platform to create amazing performance. Visit **www.tsmc.com**

Open Innovation Platform®

NETGEAR is a proud sponsor of Women in Engineering

orbi™ NIGHTHAWK® Meural NIGHTHAWK® PRO GAMING NETGEAR® BUSINESS