

# engineering

at San José State

## Blazing New Trails with Research



### Focus on Sustainability

New SJSU Sustainable Faculty Cohort Launches This Fall

### Largest US Wildfire Center

Sparks New Interdisciplinary Research

### Historical Win

Spartan Racing competed at the FormulaSAE 2021 at Michigan

**SEEING STUDENTS WALK ALONG THE PASEO**

and experiencing the energy of our community returning to campus this fall has been uplifting.

Our campus is transitioning this semester. We were primarily online last academic year and we are moving now towards a still somewhat uncertain future of teaching and learning. We also continue to grow our research, scholarly and creative enterprise, in many cases in collaboration with colleagues in other disciplines.

As we mentioned in our spring double-issue, 2021 marks 75 years as the College of Engineering at San José State. We have been transforming student lives since 1946, and their success has in turn transformed their families. Our alumni have literally and digitally been transforming Silicon Valley into the globally acknowledged powerhouse it is today.

Enjoy our stories, and see if there are any fields or opportunities where you might be able to connect with us. We will be delighted to see you again.



**“We have been transforming student lives since 1946.”**

Sincerely,

**Dean Sheryl Ehrman**

*Don Beall Dean of Engineering,  
Charles W. Davidson College of Engineering  
at San José State University*



## In This Issue

- 4** College and Research News
- 5** New SJSU Sustainable Faculty Cohort Launches This Fall
- 6** Blazing New Trails with Research
- 8** Optimizing Fire Prediction
- 9** Answering the Need of the Hour
- 10** Spartan Racing Electric's Historical Win
- 12** 75th Anniversary Celebration
- 13** Events
- 14** Alumni Notes



6



10

---

## On the cover

In 2021 Dixie Fire burned almost one million acres across five counties.

Photo courtesy of Craig Clements, SJSU



## NEW ASSOCIATE DEAN

**Dr. Nicole Okamoto**, former chair of the Mechanical Engineering department, was recently appointed Davidson College of Engineering Associate Dean for Undergraduate Programs and Student Success. She succeeds Dr. Jinny Rhee, who has just become the new Dean of Engineering at Cal State Long Beach.



Career highlights for Dr. Okamoto include leading a multi-department team that developed a minor in robotics, which started in Fall 2021, implementing mastery-based learning in the ME 113 Thermodynamics course, and supporting a course pedagogy revamp for the ME 101 Dynamics course, resulting in a drop in the DFW rate from 27% in 2015 to less than 5% in 2019. Dr. Okamoto received the College of Engineering Award for Outstanding Service in 2016 as well as the Applied Materials Award for Excellence in Teaching in 2005. She has also twice been voted "Professor of the Year" by ME students.

Dr. Okamoto received her Bachelor of Science degree in Engineering from Calvin College and her MS and PhD in Mechanical Engineering from the University of Illinois at Urbana-Champaign. ☺

## 7 NEW FACULTY

**Yawo Ezunkpe**, Assistant Professor, Aerospace Engineering

**Gautam Kumar**, Assistant Professor, Chemical & Materials Engineering

**Mohammad Khayatian**, Assistant Professor, Computer Engineering

**Stas Tiomkin**, Assistant Professor, Computer Engineering

**Shrikant Jadhav**, Assistant Professor, Electrical Engineering

**Gaojian Huang**, Assistant Professor, Industrial & Systems Engineering

**Lin Jiang**, Assistant Professor, Mechanical Engineering ☺

## SJSU RANKED ONE OF AMERICA'S TOP COLLEGES

San José State University is ranked #109 out of 600 colleges on the Forbes America's Top Colleges list! This list includes colleges from across America.

Forbes **2021**  
**AMERICA'S  
TOP COLLEGES**



The 2022 U.S. News and World Report Best Colleges rankings ranked SJSU the 7th in Top Public Schools! The Charles W. Davidson College of Engineering is #4 in Best Undergraduate Public Engineering Program – Non-Doctorate. Electrical engineering ranked #6 and mechanical engineering ranked #8 among public universities in the country. Read the SJSU Newsroom article! <https://blogs.sjsu.edu/newsroom/2021/new-u-s-news-rankings-place-sjsu-at-top-of-many-in-the-west> ☺

# New SJSU Sustainable Faculty Cohort Launches This Fall

## *Solar energy expert Igor Tyukhov designs sustainability modules into classes*

### **TEN SJSU FACULTY MEMBERS ARE LEADING**

the university's inaugural Sustainability Faculty Cohort by including sustainability modules into their curriculum this fall. The cohort, which complements existing extracurricular and co-curricular initiatives offered through the Office of Sustainability, the Campus Community Garden and the Environmental Resource Center, offers a chance for faculty to become campus leaders in sustainability education.

Sustainability is defined in terms of economy, equity and environment, three pillars that invite faculty to envision where their own discipline might connect. Participating faculty receive a \$500 professional development grant courtesy of PepsiCo, and will share their experiences at future Center for Faculty Development workshops.

Mechanical Engineering lecturer Igor Tyukhov, who has created renewable energy laboratories at several institutions in Russia, is a coauthor of textbooks and more than 300 papers and 20 patents. He is an Associate Editor of Elsevier's Solar Energy Journal.

This fall Dr. Tyukhov chose to design and promote UN Sustainable Development Goal #7: Ensure access to affordable, reliable, sustainable and modern energy for all. "Solar energy and renewable energy are wide interdisciplinary subjects related to physics, technology, astronomy and astrophysics, Earth sciences, GIS, power electronics, economics and business, and architecture," he said. "Energy is directly related to our everyday needs and very important for the other sixteen UN Sustainable Development goals. I hope our cohort's collaborative efforts will help us to exchange new programs, ideas and teachers' innovations in sustainability."

As a student, Dr. Tyukhov studied optoelectronic devices and silicon photodetectors with higher UV sensitivity. "I enjoyed the idea of using the unlimited resource of our sun to generate electricity directly from solar radiation without many steps of conversion, noise and harmful exhaust gases." On a visit to Solarex in 1999, he observed that the company used energy from a tall sloping wall covered by solar modules, in order to produce more solar cells and modules. "I liked the idea that we don't need to spend energy from fossil fuels at all to produce solar generators. It's the very idea of sustainability!"

His dream is to create a photovoltaic lab here for both teaching and research, and he is committed to involving students in research projects as early as possible. Some of his ME170 Solar Energy Engineering graduates are developing promising careers. Dylan Benjamin is now a director of Engineering at Singapore-based Maxeon, while Jack Fogelquist is earning his PhD in UC Davis.

"I suggest that in this cohort, we discuss the concept of sustainability as a long-term process and not be limited by considering only planet Earth," said Dr. Tyukhov. "So, space research where we also harness solar energy is very important for our sustainable future. At the same time, we must remember the motto: Think globally, act locally."

Earlier this year, the Times Higher Education Impact Rankings, which measure worldwide progress around the 17 United Nations Sustainable Development Goals, ranked SJSU in the top 30 universities among U.S. universities and in the top 500 internationally. ☺





# Blazing New Trails with Research

## *SJSU's New Wildfire Interdisciplinary Research Center*

by Rebecca Lee, English '22

### **SAN JOSÉ STATE'S NEW WILDFIRE**

Interdisciplinary Research Center (WIRC), currently the largest wildfire center in the United States, brings together interdisciplinary researchers to study fire ecology, fire and fluid dynamics, wildfire behavior modeling and wildfire meteorology, wildfire remote sensing, and wildfire management and policy. It contains the only fire weather research units in the United States that are qualified to go behind fire lines.

The WIRC includes researchers, staff, and students who study wildfire science and management to better understand fire in California and around the world. Their core goals are to conduct high-impact wildfire research so that improved tools and policies can be provided to the community and industry stakeholders around the world. The WIRC works with SJSU's colleges to produce diverse graduates with a broad, industry-oriented perspective. SJSU has also created a new minor in Wildfire Sciences.

***“The WIRC is an excellent example of people making a positive impact on problems of great importance to our region but also across the globe.”***

Dr. Ali Tohidi is an assistant professor of Fire and Fluid Dynamics in the department of Mechanical Engineering. He researches the intersection of experimental, data-driven, and mathematical modeling of nonlinear spatiotemporal processes across different scales. His current research focus is understanding wildfire spread mechanisms, including firebrand (ember) generation, transport and spot fire ignition, and applications of data-driven methods in physics-based models. Refer to page 8 in this issue for a full interview with Professor Tohidi.

The WIRC held its 2nd annual Fire Weather Research Workshop on April 8 - 9, 2021 to provide the latest information on fire weather research to fire management agencies, scientists, and students. International wildfire researchers and panelists gave workshops to more than 400 attendees from 17 countries. The workshops presented the latest science in fire weather and wildfire prediction, including topics such as fuels and fire danger, smoke modeling and impacts, and coupled fire-atmosphere modeling advances. Dean Sheryl Ehrman says, "We are excited to participate in this research. The WIRC is an excellent example of people making a positive impact on problems of great importance to our region but also across the globe." ☺



Scanning the 2014 King Fire with Doppler radar as VLAT drops fire retardant ahead of fire front.

2020 FASMEE experiment with high-intensity crown fire in the Fishlake National Forest.



Photos courtesy of Craig Clements, SJSU

# Optimizing Fire Prediction

## *Fires Large and Small*



**“IN WILDFIRE SCIENCE THERE ARE TWO SCHOOLS** of thought,” says Mechanical Engineering Assistant Professor Ali Tohidi. “One is where physical scientists go and study the fire phenomenon on a really small scale, for example, what happens to a flame on a match or a pole fire.”

“The other school of thought is where scientists like Dr. Craig Clements [See WIRC story, page 6] study larger scale wildfires and their interactions. I’m hoping that we can bridge the gap between these two fire science perspectives, and connect them so we can better study wildfires.”

Before joining SJSU, Tohidi worked as a senior data scientist in the tech industry. He decided to combine his acquired skills in data analytics with his background in fluid and fire dynamics.

About his PhD project, Tohidi says “I did a literature review on how many articles I could find for each project; radio gravity current had a lot of articles, but firebrands I could only find maybe ten at most. I thought, maybe that’s a field I can grow in, and maybe even advance it a little.”

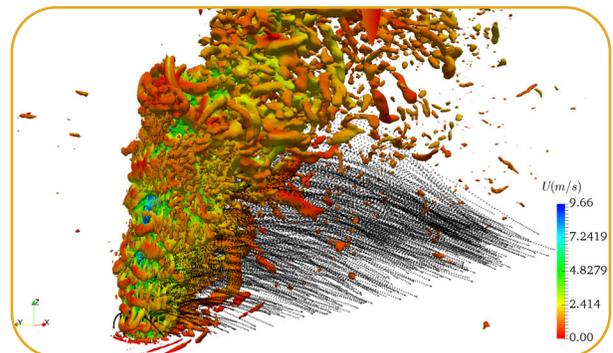
Tohidi is working on two main projects. The first, “Biomass burning smoke as a driver of multi-scale microbial teleconnections,” is funded by the National Science Foundation. Leda Kobziar, Department of Natural Resources and Society at University of Idaho, is the Lead PI, and Adam Kochanski, of Meteorology and Climate Science is the SJSU PI. Each year, wildland fires emit millions of tons of smoke particles into the atmosphere, which likely carry microbes. The role of smoke plumes as agents of biological dispersal has yet to be explored. The cross-disciplinary team combines expertise in microbiology, fire science, soil ecology, and atmospheric modeling to establish a new methodology for testing these impacts.

The second project, supported by an SJSU internal grant and provided by IBM Public Impact Project, is creating an “Inverse Solver for Real-Time Operational

Wildfire Forecast.” As fire losses are expected to grow, there is an urgent need to accurately estimate the risks of wildfires. With recent advancements in fire science, mathematical modeling, and high-performance scientific computing, significant progress has been made in fire modeling of small to mid-scale flames. Nonetheless, it is difficult to extrapolate the knowledge and capabilities to larger flames of wildfires. This project, for which Tohidi is the PI, aims to develop an inverse solver for real-time operational wildfire forecasts using high-fidelity observational data.

Tohidi continues his PhD research with a master’s student from the Aerospace Engineering department, extending a code that characterizes the impact of spot-fire ignition on fuel backs, and looking at one of the wildfire spreading mechanisms called a ‘firebrand shower.’ These firebrands can hopscotch far ahead of the fire line, and ignite new ‘spot’ fires if they are hot enough.

“Our students gain really good intuition about physical phenomena. Traditionally the mechanical engineer applies that knowledge in designing and building systems, but that knowledge is also crucial for advancing our understanding of the physical phenomena around us, specifically as the role of climate change takes over our lives: we need more people who can describe these processes in a scientific way, address the issues, and really study them because that’s the first step in any mitigating measure,” said Tohidi. 🍷



Results of Tohidi’s model that simulates transport for firebrands through the wind field.



# Answering the Need of the Hour

## *Drawn to Remote Data in Assessing Wildfire Risk*

**WHAT IF WE COULD ANALYZE THE HEALTH OF** vegetation from a satellite, and thus identify and manage areas most at risk from wildfire? Dr. Indumathi (Indu) Jeyachandran, a Civil and Environmental Engineering assistant professor is doing just that. Jeyachandran received her PhD in Water Resources Engineering from the University of Utah, preceded by her masters in Remote Sensing & GIS from Anna University, India. She is a Certified Mapping Scientist with a specialty in Remote Sensing.

“One of my primary research projects using remote sensing data for wildfire vulnerability assessment began in 2020,” said Jeyachandran. “In this research, I specifically focused on the Thomas Fire (2017) site. I examined how dryer, stressed vegetation is more vulnerable to ignition in dusty, heavy winds; for example, the Thomas fire appears to have started when dusty winds were blowing at 42.9 miles per hour. I am extending the wildfire risk analysis study to analyze the 2020 Lightning Complex wildfire events using Landsat-8 surface reflectance-derived indices, wind data, and daily temperature data.”

It was actually SJSU President Mary Papazian’s blog post about hiring a cluster of wildfire science experts that drew Jeyachandran closer in this field: in the post, President Papazian said, “With wildfire research and our need to contribute to such an urgent and dire problem, the need for team-oriented researchers and faculty is as important as it has ever been.” That line haunted Jeyachandran. “It is the need of the hour,” she explained.

Fire monitoring research is only one of her areas of research. Jeyachandran’s broader research focus is Sustainable Urban Infrastructure Planning using Remote Sensing, GIS, Modeling and Observation techniques. Under this umbrella, her interdisciplinary research projects include water scarcity, drought and water conservation; land cover change analysis, urban heat islands and water use; and finally the impacts of sustainable infrastructure.

Jeyachandran sees some good news in her constant monitoring of the fields of sustainability: increased use of “green roofs” (with gardens and local vegetation), permeable concrete, and rain-capturing gardens, as well as use of technology such as Smart City Initiatives, and smart LED streetlights. “There’s more awareness about this among the students and the public,” she added.

Awarded the Green Talents award in 2010 for outstanding scientists in the field of sustainable development by the Federal Ministry of Education and Research in Germany, Jeyachandran will be joining a Sustainability group at SJSU led by Bill DeVincenzi, Faculty-in-Residence for Sustainability, in fall 2021. ☺

***“With wildfire research and our need to contribute to such an urgent and dire problem, the need for team-oriented researchers and faculty is as important as it has ever been.”***



Photo courtesy of Ashwin Viswesvaran

# Spartan Racing Electric's Historical Win

*Spartan Racing competed at the FormulaSAE 2021 at Michigan*

by Rebecca Lee, English '22

## **THE SPARTAN RACING TEAM AT SJSU IS MADE**

of competent and dedicated engineers who give their all to create race cars. Every year, they compete in the FormulaSAE Michigan competition, and the 2021 competition was special! FormulaSAE Michigan 2021 is a collegiate level competition that challenges national and international students to design, manufacture, and test their own cars. Teams stick to a set of Formula rules similar to professional ones. This year, the Spartan Racing team built a combustion race car and an electric race car to enter the competition. The competition took place July 7-10, 2021 at the Michigan International Speedway

in Brooklyn, Michigan. The Spartan Racing Electric team won 1st place in the Endurance event and 2nd place in the overall Electric Vehicle competition. The Spartan Racing Combustion team placed 20th in the Internal Combustion competition. This is especially exciting for Spartan Racing Electric. According to the Spartan Racing Electric's Instagram, "This would be the first time our team has earned all of our inspection stickers and competed in a dynamic event at competition, making this an incredible milestone for our team." SRE5 is the first running car in the Electric Team's history.

The Spartan Racing teams traveled across the country to Michigan to compete with 15-person teams due to COVID-19 restrictions. Jose Lopez-Vergara, Electrical Engineering '22 and Spartan Racing Electric Powertrain Lead, said that "I had never been around so many people who share a passion, and it was a really big track. I personally wasn't able to walk around and see the other cars, sponsors, or get to see the track, because as the ESO (Electric Safety Officer), I had to stay with the battery pack at all times. The journey across the country was one of the highlights of the experience for me." Allegra Robertshaw said, "Meeting other students from all across the country and even many international teams, you start to realize how special the community of students is that has dedicated so much to this competition." Each Spartan Racing member contributed to the success of the cars. The people who spent long hours and late nights working on the car were most familiar with the process. Each member is given a certain amount of the design they are responsible for getting on the car. For our lead members, this portion of the car can be an entire system that they have designed, manufactured, and tested themselves. Jose Lopez-Vergara said that general members help "by coming in and working on the car. It may sound simple, but the one of the things that ensure the success of the team is that everyone is working diligently and gets their tasks done on time."

The Spartan Racing teams overcame unique challenges to race at FSAE 2021. The teams worked to complete the cars during a two-year period. One concern going into the competition was the Tech Inspection, which is incredibly difficult to pass. The Spartan Racing cars had been completed shortly before the competition and many tests were rushed to get the car competition-ready. James Wong, MS Mechanical Engineering '23 and Spartan Racing Electric Chief Engineer, said that the inspection was "stressful because the car wasn't completely tested to get through tech inspection with flying colors." Allegra Robertshaw, Mechanical Engineering '23 and the Project Manager for both Spartan Racing teams, said that "the most special moments were seeing the whole team in the Electrical Tech Inspection tent trying to help pass inspection for the first time in

almost five years... when we saw the sticker get placed on the car telling us we passed, there were definitely tears. At that point we had to run the car through three dynamic inspections in just 40 minutes to make it to the track before the last race for the day closed. Somehow we made it, and just in time so that our sister car - the internal combustion car - was next to us in line." The car broke down after 1 lap, which alerted them to an error to fix. In the Endurance event, the Spartan Racing car performed very well and lapped the competitors several times.

Next year's goals for the crew are set high with Spartan Racing excited to see what happens in the next iteration. The Internal Combustion and Electric teams have restructured to better use their resources. They are designing two cars with some shared systems and are planning to compete again in Michigan in June 2022. In the future, they want to pass all tech inspections on the first try, finish the dynamic events, and compete internationally.

Spartan Racing is an educational hands-on experience that prepares students to enter the workforce, and wouldn't be possible without support from sponsors and alumni. "We built on what previous members set up, and they answered any questions we had and offered their support, even when it was a late night." said Jose Lopez-Vergara. James Wong said "all the skills learned are instantly transferable to an actual job. I found myself doing more technical and complicated tasks with the Formula team than the job." Allegra Robertshaw highlighted "how invaluable the experience the Spartan Racing team is for our students and how the skills learned here -technical and soft skills- are what we are most proud of. We could not receive this education without the support from our faculty, staff, and sponsors, and on behalf of the whole Spartan Racing program I thank them tremendously."

From the team, thank you to Professor Barez, Dean Ehrman, Roger Jue, and Neil Peters. Special thanks to Associate Dean Okamoto for letting us work on the car during COVID-19 quarantine with social distancing protocols and helping us get to Michigan. 🍷



## Celebrating 75 Years

2021 marks the 75th year of engineering education at the Charles W. Davidson College of Engineering at San José State University. When we first started planning for this year's milestone we had visions of a variety of in-person gatherings and celebrations. Over the course of this year, we found meaningful ways to connect with each other virtually. The pandemic helped us appreciate the people we are celebrating in a new way.

- Amazing alumni in the community making large impacts through their daily work
- Resilient students who now have practical experience pivoting and adapting to changing circumstances
- Dedicated faculty and staff who have found innovative ways to teach, encourage, and connect with students and each other



Throughout the year we distributed limited edition 75th anniversary lapel pins. It is great to see these pins in the community on lapels, backpacks, and even on a few robots.

Thank you for celebrating with us, and if you would like to see highlights of our history and photos, many of which were contributed by our alumni, you can find them on our website at <https://www.sjsu.edu/engineering75>. 📷

## Connect with us!

### We want to hear your news!

We love promoting your stories. Keep the news coming! <http://bit.ly/alumnotes>





## Dean's Career Conversations

Days and times vary via Zoom

Dean Sheryl Ehrman and select students enjoy conversation with alumni and other mentors from a variety of engineering fields. ☺

## Engineering Awards

Thursday May 5th, 2022

If you know an engineering alumni that should be celebrated for their outstanding service to the community, please nominate them on our website. [www.sjsu.edu/engineering/distinctions/awards](http://www.sjsu.edu/engineering/distinctions/awards) ☺

## Green Talk Speaker Series

Wednesdays at noon | via Zoom

Practicing engineers, scientists, and technical experts deliver up-to-date briefings on how engineers deal with environmental issues. ☺

## Fall Commencement Ceremonies

December 13-17

Provident Credit Union Event Center



## Silicon Valley Leaders Symposium

Thursdays at noon | via Zoom

Industry and technology leaders talk about business and technology trends. It also features prominent leaders who discuss broader societal and political issues that shape society. ☺

## Interdisciplinary Speaker Series



Fridays at 3pm | via Zoom

Dean Sheryl Ehrman has invited interdisciplinary researchers from academia, government laboratories, and industry to give seminars and to connect with our students and faculty. ☺

## 7th Annual Women in Engineering Conference

Saturday, March 19th, 2022

Diaz Compean Student Union Ballroom

Inspiring the next generation of women innovators by creating a learning community of students, professors, and industry professionals in Silicon Valley and beyond. ☺

# Alumni Notes



## **ALI GUARNEROS LUNA**

*BS Aerospace Engineering, '10  
MS Aerospace Engineering, '13*

Professor Ali Guarneros Luna, Aerospace Engineering and SJSU alumni, works as a project manager for NASA's Small Satellite Program! She shared her journey from Mexico to NASA with NBC Bay Area. She was profiled as part of Hispanic Heritage Month.

---



## **DEEKSHITH KRISHNEGOWDA**

*MS Electrical Engineering, '19*

Deekshith Krishnegowda was promoted to Senior Design Engineer and then Staff Engineer at Marvell Semiconductor in a span of less than 2 years. He says, "It was all possible from the knowledge and life skills that I imparted during my time at SJSU."

---



## **MARIBEL LOCSIN**

*BS Chemical Engineering, '15*

Maribel Locsin was featured in an article, "Day in the Life of a Chemical Engineer," on the Society of Women Engineers website. She works at Boeing as a Materials Process and Physics Engineer.

---



## **SAMEER SARAN**

*MS Computer Engineering, '18*

Sameer Saran was featured in the Silicon Valley Business Journal and Medium.com regarding how ParkStash began with the desire to fix the parking problem at San José State. Now 1400 students use the app daily and they are well on their way to become the Airbnb of car parking. Sameer shared his story as a speaker at Silicon Valley Leaders Symposium this fall.

---



## **RAJEEV SEBASTIAN**

*MS Mechanical Engineering, '21*

Rajeev Sebastian is continuing the work he started with mobile cloud computing as an SDE at Amazon. "I am incredibly fortunate for having been given the opportunity to work on the problem under Dr. Jerry Gao."

---



## **SAISHRUTHI SWAMINATHAN**

*MS Electrical Engineering, '18*

Saishruthi Swaminathan was featured in the Analytics India Magazine as a leading ethical AI advocate for her work with R-Code for the AI-Fairness 360 product.

---



# Remembering Pat Backer

*Professor of Engineering Technology*

**DR. PAT BACKER WAS A PROFESSOR IN THE**

Aviation and Technology Department for more than 30 years, teaching a variety of technology and general education courses. She was an advocate for student success, bringing more than \$12 million in grant funds to the campus to support various initiatives that focused on student retention and graduation rates, and faculty development. Dr. Backer was known to be straight-forward

with students, but was always willing to give extra opportunities for students to succeed. Her sharp wit and take-charge mentality were seen by students and colleagues alike. She is survived by her husband Victor, daughter Taylor, and an extensive extended family. She had a great impact across the college and the campus. She will be greatly missed. ☺



# Remembering Craig Hofstetter

*Adjunct Professor of Aviation*

**ADJUNCT PROFESSOR CRAIG HOFSTETTER**

joined the Aviation Program when he retired as a Commercial Pilot at Delta Airlines. He managed and taught Avia 62 and was proud to be in charge of the Flight Simulators Lab. Professor Hofstetter was a proud supporter of the Reid-Hillview Airport and it's many benefits to our students. His dedication

and persistence enabled students to fly again in the middle of the pandemic year with proper precautions. Professor Hofstetter's professionalism, deep interest in our Aviation Program, and passion for student success has made a significant mark on SJSU Aviation. ☺

**LOUIS I BURDICK**

**BS Electrical Engineering, '73**

Louis Burdick grew up in Dalton, Nebraska and enlisted in the United States Army in 1961. He served in the 6th Missile Battalion, (Hawk) 562nd Artillery, B Battery. After his tour of duty, Lou attended Nebraska Western College and San José State University. His career took him and his family to Saudi Arabia for 20 years. After retiring, Lou started learning classical guitar, and enjoyed fishing on Lake Pend Oreille, and spending time with his family. Lou is survived by his wife, Beth; daughter, Sandy, and son, Chris; and grandchildren, Zach Antinelli, Arianna Antinelli, and Rachel and Kyle Mathewson.

**LUIS C ROSA**

**BS Mechanical Engineering and Architecture, '86**

Luis Rosa was a successful engineer and Director of Construction for several restaurant groups such as Ruth Chris, Mimi's Café, Claim Jumper, and Black Angus. Luis was born in Azores, Portugal and grew up in Santa Clara, CA. He was an exceptional football and track athlete. He was an avid reader and always wanted to educate himself in all different subject areas. He loved spending time at the ocean and prided himself in the beautiful home that he built. He is survived by his sister Eva, his two brothers John and Rui, and his nieces and nephews Paul, Chris, Evan, Jon Paul and Natalia.

**SJSU** SAN JOSÉ STATE UNIVERSITY

CHARLES W. DAVIDSON  
COLLEGE OF ENGINEERING  
ONE WASHINGTON SQUARE  
SAN JOSÉ, CA 95192-0080

NON-PROFIT ORGANIZATION  
U.S. POSTAGE PAID  
SAN JOSÉ, CA  
PERMIT NO. 816

RANKED **4TH** IN THE NATION BY U.S. NEWS AND WORLD REPORT **2022**

*Among public engineering programs offering bachelor's and master's degrees, excluding service academies.*

**#1** SAN JOSÉ STATE UNIVERSITY  
**MOST TRANSFORMATIVE UNIVERSITY** —Money magazine

1946  
2021  
Charles W. Davidson  
College of Engineering

**75** YEARS

