Fall 2026

engineering

at San José State

From Industry to Inspiration

Industry-tested lecturers bring real-world practice into the classroom, preparing the next generation of engineers.



Kourosh Youssefi



Supreeta Amin



Nobi Buntin



Rufino Olay

SJSU ENGINEERING 80 years 1946-2026



THE FALL 2026 SEMESTER ARRIVES AT A DEFINING MOMENT for engineering—and for our world. At the Charles W. Davidson College of Engineering at San José State University, we are preparing students to navigate rapid change and shape it responsibly.

Artificial intelligence is transforming how engineers design, analyze, build and solve problems. It is accelerating discovery while raising important questions about trust, ethics, security and the future of work. Our students must learn not only how to use these powerful tools, but when to question them and when human judgment must lead.

Engineers also face challenges that technology alone cannot solve: climate change, resource constraints, resilient infrastructure, public health, cybersecurity and equitable access. These challenges demand creativity, collaboration and systems-level thinking.

Meeting these challenges begins with how we educate the next generation. In this issue, we celebrate our lecturer faculty and the experience, expertise and perspectives they bring to the classroom. Their stories show how they connect theory to practice, bring current industry challenges into their teaching and help students understand not only what they are learning, but why it matters.

"The future will be engineered. Let's shape it with ambition, responsibility and purpose."

As I shared with our faculty and staff, this will be my final year as Dean. It has been an extraordinary privilege to serve the College, and I am deeply grateful to our alumni and friends for your continued support and belief in SJSU Engineering. Your connection to the College strengthens our community and creates opportunities for future engineers.

While I will be stepping down as Dean in June, I am not leaving the College. I look forward to returning to the faculty, continuing to teach, pursue research and work with our students. I am excited to remain part of SJSU Engineering and continue building its future alongside you.

The future will be engineered. Let's shape it with ambition, responsibility and purpose.

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

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

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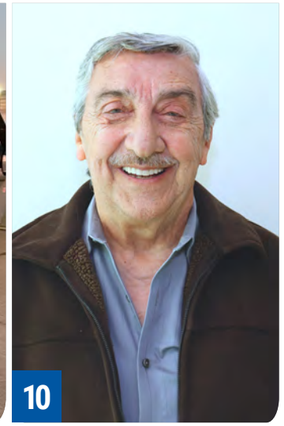
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Congratulations to **Dr. Christopher Lew** on receiving two National Science Foundation (NSF) research awards totaling $450,000 to advance the discovery and synthesis of new zeolite materials.

Zeolites are crystalline, sponge-like materials filled with tiny pores that can trap molecules and help drive chemical reactions. They are widely used in applications ranging from fuel refining and plastics production to emissions control.

Dr. Lew's projects explore how chemical composition influences the formation of new zeolite structures. By combining laboratory experiments with computational approaches, his team is working to make materials discovery more predictable and efficient, with potential applications in catalysis, chemical processing and sustainable manufacturing.





Kudos to **Dr. Liat Rosenfeld** and **Dr. Dave Parent**, who received $669,000 in incremental funding from the U.S. Department of Energy for SPARTAN SPARK: Stimulating Passion. Awarded in February 2026, the funding supports efforts to inspire students and strengthen their interest in engineering and related fields.

Through engaging experiences and pathways into engineering, SPARTAN SPARK helps students discover career possibilities, develop skills and build confidence as future engineers and innovators. This initiative reinforces SJSU's commitment to expanding access to engineering education and inspiring the next generation of innovators and problem-solvers.



Applause for **Dr. Hiu-Yung Wong**, who received two industry-supported research awards totaling $125,000. Sandia National Laboratories awarded $75,000 for the GAA-FET SRAM Radiation Hardness Project, while Micron Technology provided $50,000 for Using ML-TCAD to Expedite Device Optimization.

The projects address challenges in semiconductor technology, including improving the resilience of advanced memory devices and using machine learning to accelerate device design and optimization. Together, they highlight the role of computational tools and innovative engineering in advancing next-generation electronics.



Celebrating **Dr. David Yan**, recipient of a $125,000 NSF Engineering Research Initiation award for Vibration Assisted Friction Stir Surfacing of Additively Manufactured High-Performance Metallic Alloys.

His research explores ways to improve the properties of additively manufactured metals using vibration-assisted friction stir surfacing. The work could contribute to stronger and more reliable materials for advanced manufacturing and other high-performance applications.

The College of Engineering is also strengthening its research and education infrastructure through a $200,000 investment from Synopsys. The funding is expected to upgrade computing and storage capacity in the Synopsys Lab, giving students and faculty additional resources for semiconductor design, research and engineering education.

Together, these awards and investments demonstrate the College of Engineering's commitment to advancing research, strengthening industry partnerships and preparing students to tackle tomorrow's engineering challenges.

A Lifetime of Excellence

Dr. Akthem Al-Manaseer of San José State University was honored Friday, September 18, with the ASCE San Francisco Section's Lifetime Achievement Award at The Green Room at the San Francisco War Memorial & Performing Arts Center.

The evening celebrated a distinguished career shaped by visionary leadership, technical excellence, generous mentorship, and devoted service. Through decades of contribution, Al-Manaseer has advanced the civil engineering profession, strengthened communities, and inspired generations to build a better future.



Helping Engineering Students Find Their Place Beyond the Textbook

Bridging classroom learning to real-world careers — and discovering new possibilities

FOR SUPREETA AMIN, ENGINEERING IS ABOUT more than equations, machines and systems. It is also about possibility — helping young people see a future they may not yet be able to imagine.

After building a career in industry, Supreeta brought that experience into the classroom, where she could share not only what engineering is, but where it can lead. Her professional background gives her a practical lens: Concepts that might seem abstract on a page become tools used to solve problems, improve processes and make decisions in the working world.

That connection is increasingly important as artificial intelligence, automation and advanced manufacturing transform the profession. Supreeta brings current developments into her lessons through discussions, hands-on projects and student presentations. The goal is not simply to keep pace with technology, but to teach students how to think critically about it — how emerging tools are being used and what problems they can help solve.

Some of her most memorable moments, however, have nothing to do with technology.

Students often wonder what kind of future awaits them after graduation. One student told Amin they could not imagine spending a career behind a desk. Rather than treating that as a limitation, she used the student's interests as a starting point, introducing career possibilities that combined engineering with fieldwork, travel and hands-on problem-solving.

The student's surprise was followed by excitement. There were options they had never considered.



For Supreeta, moments like that capture the deeper purpose of education: helping students understand not just what they can learn, but where they might belong.

Her advice for entering a rapidly changing profession is equally direct. Keep learning. Stay curious. Adapt. Technical expertise matters, but so do communication, teamwork, problem-solving and the willingness to step beyond familiar ground.

In Supreeta's classroom, graduation is not the finish line. It is an invitation to keep growing.

He Spent Decades Building Technology.

FOR RUFINO OLAY, AFTER MORE THAN 30 years in Silicon Valley, teaching was not supposed to be the next chapter in his career.

By 2023, he had done what he set out to do: build products, lead engineering organizations, help start companies, and co-found Bolt Graphics, where he served as chief operating officer. He was ready to slow down, semi-retire and spend more time with his family.

Then came a basketball game.

At a San José State University alumni event in early 2024, a conversation with College of Engineering faculty turned into an unexpected return to campus. He reconnected with his former professor and adviser, Dr. Ping Hsu, who had helped launch his engineering career more than 30 years earlier. Soon afterward, he delivered the university's commencement address.

Standing before graduates who occupied the same seats he once had, he realized



Now He's Building Future Engineers.

something: He had been teaching for most of his career anyway.

As a Navy electrician, he trained junior sailors. In Silicon Valley, he mentored engineers, built teams and helped colleagues become leaders. Returning to SJSU, he discovered that the thing he most wanted to build was no longer a product or company.

"Early in my career, I thought engineering was about building things. As my career progressed, I realized it was really about creating value. Today, the most meaningful thing I have is the opportunity to build the next generation of engineers," Olay said.

That idea now shapes his classroom. Rather than beginning with what he wants students to learn, he asks: "If I were hiring one of my own graduates, what would I want them to know on their first day?"

"Today, the most meaningful thing I have is the opportunity to build the next generation of engineers"

The answer extends well beyond circuits and code. Communication, curiosity, teamwork, leadership and integrity matter, too. His work includes teaching technical communications, modernizing courses, founding and leading the Heterogeneous Computing Initiative, strengthening industry partnerships and advising senior capstone teams.

The reward is often visible in a student's expression

One student arrived convinced they lacked enough experience to apply for internships. Instead of focusing on what was missing, he asked about the student's projects, technical challenges, leadership and campus involvement. Reframing those experiences around accomplishments helped the student land an internship.

That, he says, is the privilege of teaching: helping students recognize possibilities they cannot yet see in themselves.

Technology will keep changing, from artificial intelligence to new computing architectures. His lesson is simpler and more durable: Stay curious. Keep learning. Earn the trust of the people around you.

Olay still thinks deeply about the products and technologies engineers will build. Today, he is equally focused on helping build the engineers who will shape what comes next.

Teaching Students to Fly—*and to Think*

Helping students become aviators and lifelong learners

LONG BEFORE SHE BEGAN TEACHING aviation at San José State University, Nobi Buntin spent more than three decades building a career in education, including founding schools in Japan. Today, Buntin brings that global perspective—and a passion for mentorship—to the classroom, where her mission reaches beyond producing capable pilots. Buntin wants to help students become lifelong learners.

"My most important job isn't simply delivering information," Buntin said. "It's sparking the curiosity that makes real learning possible."

That philosophy shapes every course she teaches in SJSU's Aviation program. While students master aerodynamics, regulations and flight operations, Buntin is equally focused on cultivating the habits that define successful professionals: intellectual curiosity, humility and resilience.

Buntin's lessons do not end when class is dismissed.

Outside the classroom, Buntin encourages students to gain experience through volunteer flying opportunities with charity organizations such as Aloha Aviators, where they confront the realities of aviation in real time. Weight-and-balance calculations, weather decisions, fuel planning and operational costs suddenly become more than textbook exercises—they become decisions with real consequences.

"That's when the classroom comes alive," she said.

Buntin believes aviation demands far more than technical skill. Many students arrive captivated by the romance of flight, imagining themselves as the next "Top Gun." Buntin quickly grounds those expectations.

"Aviation is one of the most unforgiving industries in the world," said Buntin. "You have to remain humble—toward your aircraft, toward Mother Nature and toward the mentors who came before you."

That emphasis on mentorship is personal. One former student nearly failed a pilot checkride after discovering he lacked fundamental knowledge that no one had taken the time to teach him. Buntin convinced the student to postpone the exam, spent months preparing him and continued mentoring him through moments of doubt. Today, that student flies as a first officer for Endeavor Air.

"My goal has always been to be the mentor I wish I had," Buntin said.

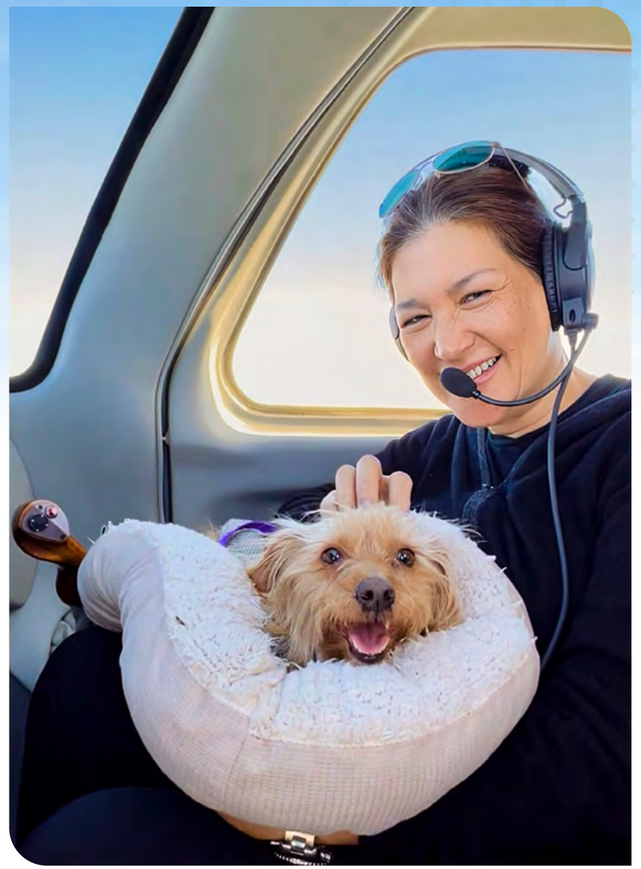
Buntin's advice extends well beyond aviation. She encourages students to seek challenges that stretch their abilities, attend industry conferences, share knowledge freely and never allow failure to define them.

"Growth lives at the edge of discomfort," she tells them.

For Buntin, preparing students means preparing them for careers that will continue evolving long after graduation. Artificial intelligence, automation and new technologies will reshape aviation, Buntin says, but curiosity will remain timeless.

"Learning doesn't end at graduation," she said. "That's where it begins."

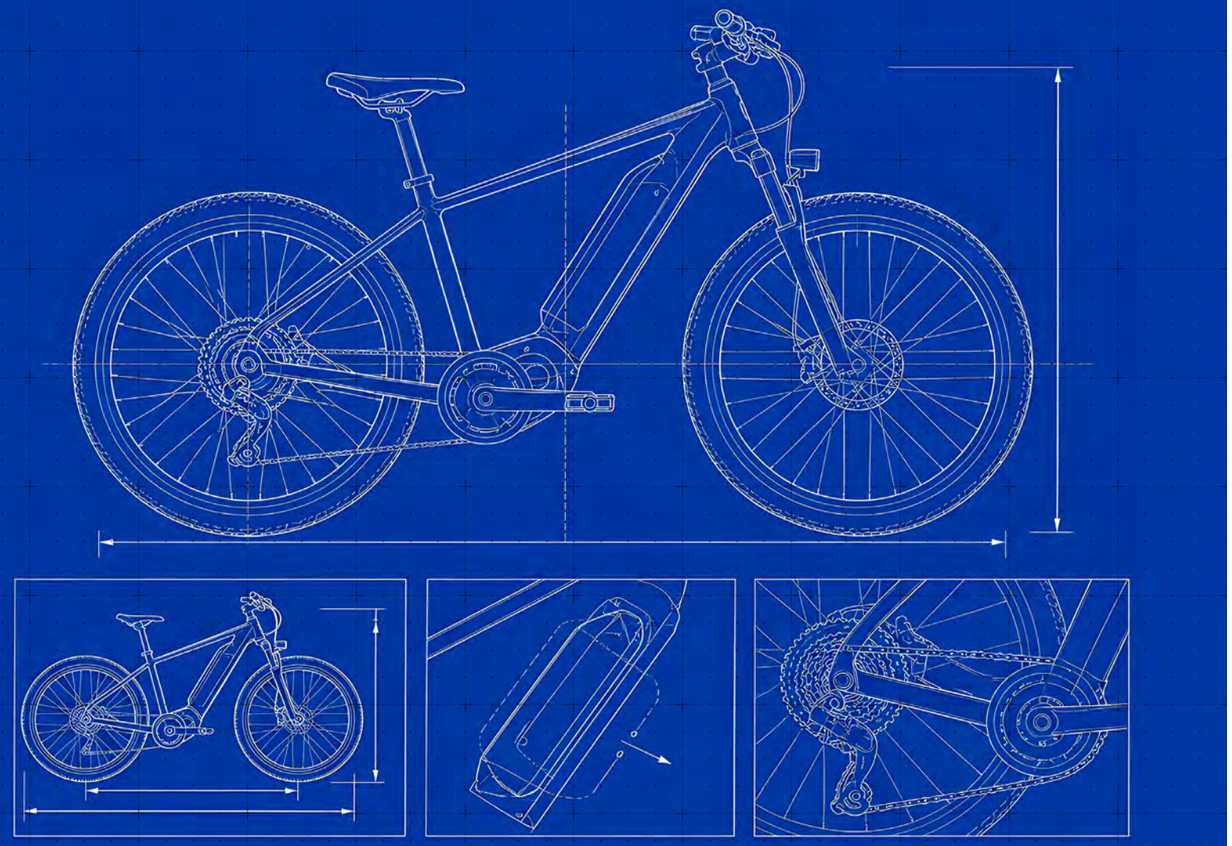
It is a philosophy that reflects both the educator and the aviator: always learning, always adapting and always helping others find their way forward.



"My most important job isn't simply delivering information. It's sparking the curiosity that makes real learning possible."

The Engineering Lesson That Begins *Where Theory Ends*

Bringing engineering theory to life through real-world problems.



FOR THIS ENGINEERING EDUCATOR, THE GAP between learning and doing is where the real work begins.

After years in industry, he entered the classroom with a concern: Too many graduates knew the vocabulary of engineering but were not always prepared for the demands of applying it. What seemed missing was not simply technical knowledge, but the curiosity, initiative and drive to keep learning once college was over. So he brought the workplace with him.

In his courses, engineering principles are paired with examples drawn from professional experience, giving students a chance to see how ideas taught in college hold up against the messy constraints of real problems. Fundamentals matter, he tells them. But a workable solution requires understanding how things function beyond the classroom.

One project made that lesson tangible. A student in a machine and mechanism design course wanted to improve the rear-wheel suspension of a mountain bike. Using principles from the course, the student developed a concept. Together, they turned the idea into physical parts, fitted them to a bike and tested the prototype.

It worked.

The student has since moved beyond the classroom, manufacturing and selling the bike.

“College gives you the foundation. The real engineering begins when you have to make it work,” Kourosh emphasised.

For the educator, that kind of outcome captures what hands-on learning can accomplish. Students are not simply absorbing information; they are testing ideas, making things and discovering what happens when theory meets reality.

He takes a similarly pragmatic approach to artificial intelligence. Students are encouraged to use AI as a tool for research and project writing, reflecting its growing role in professional life. But when it comes to exams, the technology disappears. Students must demonstrate that they understand the underlying principles themselves.

“College gives you the foundation. The real engineering begins when you have to make it work.”

His message is consistent: A diploma provides a foundation, not a finish line.

The engineers who thrive, he says, will be those who take initiative, stay curious and remain willing to work hard and learn something new.

Tomorrow's workplace will demand technical knowledge — and the determination to keep building on it.

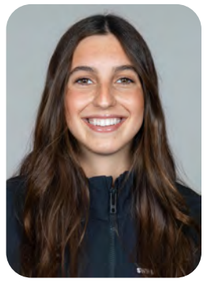


124 Student-Athletes Earn Academic All-Mountain West Honors

San José State University student-athletes continue to show what it means to compete with purpose, both in athletics and in the classroom. This fall, we are giving a special shoutout to Spartan student-athletes who are pursuing engineering degrees while representing SJSU across basketball, gymnastics, swimming and diving, and track and field.


Aaron Adamos


Bethany Burga

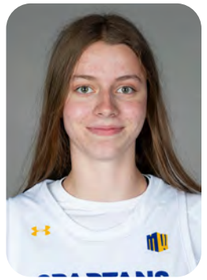

Ela Freiman

Balancing the demands of Division I athletics with the rigor of an engineering curriculum takes discipline, resilience, and focus. These Spartans are not only training, traveling, and competing at a high level, but also taking on some of the university's most challenging academic programs.

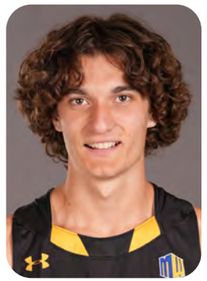
Among this year's engineering student-athletes are Gabriela Pato, a freshman women's basketball player majoring in Biomedical Engineering; Kaylee Larson, a junior women's gymnast majoring in Civil Engineering; Bethany Burga, a freshman swimmer majoring in Biomedical Engineering; and Ela Freiman, a graduate student and standout swimmer majoring in Biomedical Engineering.

They are joined by track and field athletes Aaron Adamos, a freshman Biomedical Engineering student; Alexander Walker, a junior Chemical Engineering student; and Kaitlin Seigle, a freshman Biomedical Engineering student.


Kaylee Larson


Gabriela Pato


Kaitlin Seigle


Alexander Walker

These Spartans represent the dedication it takes to pursue engineering while competing as student-athletes. Their achievements reflect the strength of SJSU Engineering students: the ability to solve problems, stay committed under pressure, and lead with determination.

From the lab to the field, court, pool, and gym, these student-athletes represent the best of Spartan perseverance. We are proud to celebrate their dedication to engineering, athletics, and the future they are building at San José State.



Silicon Valley Leaders Symposium

Thursdays at noon | ENG 285

Symposiums are held throughout the school year, featuring prominent leaders in engineering, who discuss broader societal and political issues, business and technology trends.



Conference on Engineering Development

Saturday, October 25

CED, a MESA event, will be held Saturday, October 25, 2026, from 8:30 am to 5:30 pm in the SJSU Student Union Ballroom. The conference empowers and inspires people from all backgrounds through professional development, community building, and conversations on diversity in STEM. Participants can attend workshops, network, and connect directly with leading companies and innovators, building lasting relationships that prepare the next generation of engineers and scientists to thrive in Silicon Valley and beyond. CED also highlights the role every stakeholder plays in building a more diverse, innovative, and representative STEM community.

SierraThon

Saturday, November 21

Sierrathon isn't your typical design competition—it's a high-octane, one-day engineering showdown where students race against the clock to solve real-world Printed Circuit Board (PCB) challenges. Teams hustle through rapid-fire prototyping rounds, earning points for precision, creativity, and speed. Only one team will rise to claim the title of Sierrathon Champion! The event will be held on Saturday, November 21, 2026 from 9am to 5pm at San Jose State University, College of Engineering in room 285/7. Awards will be presented at the conclusion of the event.



Student Club Fair Fall 2026

Tuesday, September 14

At the 2026 SJSU College of Engineering Club Fair, students were invited to learn by building. Rocket Club turns aerospace theory into hands-on rocket design, manufacturing and testing. Concrete Canoe tackles engineering challenges, cutting its canoe's weight from 330 to 185 pounds using recycled glass. Fixit Clinic connects repair skills with sustainability, while Baja and Formula teams offer competition experience and career opportunities. Across the fair, clubs shared one message: students don't need expertise to join—just curiosity, creativity and a willingness to build.



Scholar and Donor Celebration

Tuesday, November 5

Once every academic year, scholarship recipients have an opportunity to thank the individual and corporate donors that make student financial support possible. On Tuesday, November 5, 2026 at a lunch event, students will be able to meet those responsible for their scholarships face-to-face. Many of the donors are College of Engineering (CoE) alumni who have reached a certain level of success. Others, including generous corporate donors, want to see students reach their full potential.



Alumni Notes

ALUMNI WILLIAM NIX — A LIFE GUIDED BY AN INTERNAL COMPASS



William Nix arrived in San José, CA with his family just after World War II. By the time he entered San José State University (SJSU) in 1954, he was learning habits that would shape his life: work hard, study hard and help others along the way.

Like many students, he worked nights at a gas station and studied during the day. At San José State, he became the first graduate of the new metallurgical engineering department. He also discovered something unexpected: He loved teaching.

A professor, Ralph Parkman, suggested Stanford, where Parkman had studied. Nix took the advice. After graduating from SJSU in 1959, he went to Stanford for a master's degree and Ph.D. in materials science. In 1962, he joined the faculty.

He would remain there for more than 60 years.

His career centered on graduate students and research. He advised 80 doctoral students, eventually forming what he calls his "Academic Family," a group that still gathers about once a year. Much of the recognition he received—including election to the National Academy of Engineering, National Academy of Sciences, American Association for the Advancement of Science and The Royal Society of London—grew from work done with those students.

Outside the laboratory, his interests were hands-on. With his brother, he restored a 1938 Buick business coupe, using his metallurgical expertise to fabricate hard-to-find parts. He also played golf with students, reaching an 8 handicap at Stanford. At 87, he shot his age—87—though he admits the easy course and ladies' tees helped.

His advice to young people is simple: Follow an internal compass.

"Do what seems important rather than chasing someone else's definition of success," Nix said. When he followed what others considered "hot," his efforts often failed. When he trusted his own judgment, he did his best work.

That compass led him from postwar San José to Stanford—and to a life measured not only by honors, but by the students who carried his work forward.

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WILLIAM FRANK STUBBS
MS Civil Engineering

Bill worked as a naval engineer, engineering instructor and Beepex engineer. In retirement, he tutored students and enjoyed music, restoring tractors and building airplanes.

MICHAEL CHARLES LEVIN
'66 BS Engineering

Mike spent nearly 30 years at Phonic Ear and later managed service engineering at Blentech. He loved photography, sailing, music, teaching and community service.

JON CHARLES ERICKSON
'92 MS Mechanical Engineering

Jon served in the U.S. Navy, worked for the U.S. Geological Survey and advanced ocean research at MBARI. He cherished faith, family, history and music.

WILLARD ROBERT STILLMAN
Civil Engineering

Bill served during the Korean War and spent his career with the Sonoma County Water Agency, retiring as chief engineer. He later volunteered at Sturgeon's Mill.

BAHRAM DARAKHSHAN
Electrical Engineering

Bahram worked 27 years in electrical engineering before becoming a physical therapist assistant. He was remembered as a compassionate healer devoted to family, friends and patients.

ALFRED RUSSELL TRUSLOW III
Engineering

Alfred served 23 years in the Navy and Naval Reserve and led CESCO Magnetics for three decades. He valued family, service, reading, sailing and Masonry.

GARY SITTON
'64 BS Civil Engineering

Gary practiced civil and geotechnical engineering for nearly 50 years. A respected mentor and Forestville volunteer, he loved family, travel, classic cars and community service.

JERRY C. BRIDGES
'58 Electrical Engineering

Jerry was a Korean War veteran and longtime Lockheed electrical engineer. An enthusiastic pilot, he loved flying his Piper Archer II and was devoted to family.

CARL HARRIS
'63 BS, '67 MS Civil Engineering

Carl co-founded Harris & Associates and championed California's Proposition 35. A skilled pilot and lifelong athlete, he loved skiing, golf, outdoor adventure and family.

SHELLEY M. BECKSTRAND
'63 BS, Industrial Engineering

Shelley was a devoted husband, father, grandfather, engineer, attorney, and community leader. A San José State University graduate, he enjoyed music, birding, scouting, and genealogy while serving others throughout his life.

DALE ROSS DAVIS
'59 BS, Industrial and Systems Engineering

Dale Ross Davis served in the U.S. Navy Seabees during the Korean War, contributing to construction projects at military bases, including a runway at Guantánamo. He graduated with honors from San José State University with a degree in Mechanical Engineering and later established a business designing and installing septic systems throughout Sonoma County.

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

Flight competition
Precision Flight Team will compete in the SAFECON National competition May 2027 in Oshkosh, WI

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Spartan racing
Electric Vehicle Competition
Summer 2027
Brooklyn, MI