

Santa Clara University

**Scholar Commons**

---

Engineering News

SCU Publications

---

Fall 2022

## Engineering News, Fall 2022

School of Engineering

Follow this and additional works at: [https://scholarcommons.scu.edu/eng\\_news](https://scholarcommons.scu.edu/eng_news)



Part of the [Engineering Commons](#)

---

SANTA CLARA UNIVERSITY

# ENGINEERING NEWS

School of Engineering

## ENGINEERING WITH A MISSION IN PRACTICE

SCU's Engineers Without Borders (EWB) is a student-led chapter of Engineers Without Borders, USA. Members of EWB aim to "solve pressing challenges in developing communities through sustainable and user-centric solutions." For the past eight years, EWB-SCU has partnered with PICO Rwanda, an NGO that supports community organizing, supporting members of the Nyange, Rwanda community as they work to lift themselves out of poverty. Each summer, a student team travels to Rwanda for assessment, data collection, and/or project implementation. During the 2019 trip to Rwanda, EWB-SCU developed a partnership with EWB Rwanda to gain professional and local expertise as the SCU students took on their most ambitious project to supply clean water to the community.

With the help of PICO-Rwanda, a group of families (currently fifteen) in Nyange developed a cooperative with the goal of working together to improve their lives. Partnering with an organized group was attractive to EWB-SCU. The community is located on hilly terrain with very steep slopes. The first major need identified was transporting water and heavy clay for making tiles and bricks in this environment. The students designed and successfully implemented two electric carts to help locals transport clay and water up the steep hills more easily. The current project aims to implement a water supply and filtration system that will provide the surrounding community in Nyange, Rwanda, with a sustainable source of clean drinking water and to support the cooperative's end goal of selling water and constructing bathrooms as a new source of income.

This summer, the SCU team was approved to travel to Rwanda after working remotely for the past couple of years due to the pandemic and shelter-in-place restrictions. The objective of this year's trip was to pump water from a borehole encased in a valley below the main cooperative building to a filter house. The EWB 2022 Travel Team consisted of students Mia Gabriele '23 (Bioengineering), Aaron Juan '23, and Katie Ott '25 (both Mechanical Engineering) and were accompanied by EWB alumni and three-time past traveler Jon Borst '19 (Mechanical Engineering) and former civil engineering lab manager Brent Woodcock. While only a select few students travel annually, thirty or more EWB members are actively working on these projects.

Because the team only had twelve days to travel, gather materials, and implement, they had to manage their time efficiently. To stay on track, they created a timeline and documented their daily progress to ensure they made the most impact possible within the allotted time. During the team's efforts to implement the water supply system, they faced challenges, including loss of time due to rapid weather changes and miscommunication due to language barriers that called for some last-minute changes to their plans. However, through adversity, and with the help of local technical students and community members, the team successfully implemented the water pumping and storage system and provided a community of more than 200 with a sustainable source of drinking water. The team plans to return to Rwanda next year to assess the system's functionality. Visit our [website](#) to see photos of the team in action this year.

*SCU's EWB relies heavily on donations to help make these projects come to fruition. Stay tuned for Day of Giving 2023 if you wish to support and donate.*

### DEAN'S MESSAGE

This year, we delightedly welcomed the record-breaking class of 2026, with just over 400 first-year students. Along with our returning students, faculty, and staff, we also welcomed Santa Clara University's first-ever woman president, Julie Sullivan.

I applaud Julie's inaugural address as she stated her commitment to social and environmental justice, which aligns with our School of Engineering's vision of a community that inspires and develops engineering leaders of competence, conscience, and compassion—entrepreneurial thinkers who will build a more just, humane, and sustainable world.

During the summer, the School of Engineering and the Summer Engineering Seminar (SES) were honored with the INSIGHT Into Diversity Magazine's 2022 Inspiring Programs in STEM Award. We also recognize all the research excellence from our outstanding faculty for research awards received this year; read more about them on page 7.

In the fall, we welcomed seven new faculty to the School of Engineering, and four to new roles. We said goodbye to Tim Healy, who, after serving six decades as a Department of Electrical and Computer Engineering professor, has deservedly celebrated his retirement. We also did things a bit differently for this year's Grand Reunion Deans' Reception and rebranded as the "Grand Bash," where we had the joy of engaging with alumni/ae during our shared event with the College of Arts and Sciences.

I encourage you to read about all of these stories and more, including our interview with Assistant Professor Maya Ackerman about creative AI, in this edition of Engineering News.



Elaine P. Scott, Ph.D. | Dean  
School of Engineering

Join the School of Engineering as we **CREATE THE FUTURE**  
And celebrate National Engineers Week!  
February 19 - 25, 2023  
<https://www.scu.edu/engineering/eweek>



## ENGINEERING WITH A MISSION

# WELCOME NEW FACULTY

The School of Engineering welcomes seven new faculty this year, along with the promotion of four newly appointed lecturers. They each bring a wealth of knowledge and passion for their respective fields to enhance our programs and engage our students.

## NEW HIRES

📖 **Francisco Villarroya Alvarez, Renewable Term Lecturer**

**Applied Mathematics**

Ph.D. in Mathematics  
University of Valencia, Spain

- » Francisco's research focuses on harmonic analysis, a "mathematical procedure for describing and analyzing phenomena of a periodically recurrent nature."



📖 **Shiva Jahangiri, Assistant Professor Computer Science and Engineering**

Ph.D. in Computer Science  
University of California, Irvine

- » Shiva's research interests lie in big data management systems, knowledge graphs and semantic web, computing systems for data science applications, applied AI and machine learning in interdisciplinary fields, and intelligent systems and robotics.



📖 **Kai Lukoff, Assistant Professor Computer Science and Engineering**

Ph.D. in Human Centered Design & Engineering  
University of Washington

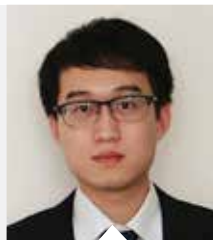
- » Kai's research focuses on human-computer interaction (HCI), understanding people's values for technology use, identifying design patterns, and building and field testing technological systems that support greater control.



📖 **Jun Wang, Assistant Professor Mechanical Engineering**

Ph.D. in Mechanical Engineering  
State University of New York at Buffalo

- » Jun's research focuses on design for additive manufacturing, physics-driven design, data-driven design, and design optimization.



📖 **Rocio L. Segura, Assistant Professor Civil, Environmental and Sustainable Engineering**

Ph.D. in Civil Engineering  
Université de Sherbrooke, Sherbrooke, QC, Canada

- » Rocio's research interests lie in the seismic and safety assessment of dams using computational approaches, including machine learning.



📖 **Anoosheh Heidarzadeh, Assistant Professor Electrical and Computer Engineering**

Ph.D. in Electrical and Computer Engineering  
Carleton University in Ottawa, Canada

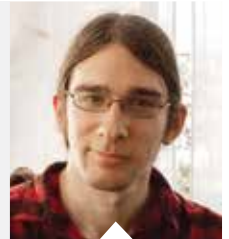
- » Anoosheh's research interests lie in the areas of private, secure, and trustworthy computing, networking, and learning, with expertise in machine learning, distributed computing, probability, combinatorics, optimization, and coding and information theory.



📖 **Max Kreminski, Assistant Professor Computer Science and Engineering**

Ph.D. in Computational Media  
University of California, Santa Cruz

- » Max's research focuses on the synthesis of human and computer capabilities to unlock new forms of creative expression that neither human nor computer could achieve alone.



📖 **Robert Kleinhenz, Renewable Term Lecturer Applied Mathematics**

Ph.D. in Mathematics  
University of Illinois

- » Robert's latest research project involves assessing the quality of probabilistic conclusions generated via neural networks.



📖 **Magda Metwally, Renewable Term Lecturer Applied Mathematics**

Ph.D. in Electrical Engineering and Computer Science  
Santa Clara University

- » Magda has continued teaching classes at SCU in Applied Math since 1988. Her students have praised her patience and willingness to spend extra time with them, helping them to understand the class material.



📖 **Salem Al-Agtash, Renewable Term Lecturer Computer Science and Engineering**

Ph.D. in Electrical Engineering  
University of Colorado at Boulder

- » Salem's research focuses on the electric power industry, agent systems, artificial intelligence, software design, smart grids, and ICT Infrastructure.



📖 **Farokh Eskafi, Renewable Term Lecturer Computer Science and Engineering**

Ph.D. in Electrical Engineering and Computer Science  
University of California Berkeley

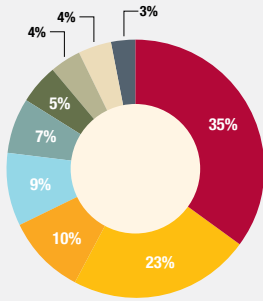
- » Farokh's current research focuses on mobile app development and automatic defect detection using machine learning in mobile devices.



## NEWLY APPOINTED LECTURERS

# 2021-2022 ACADEMIC YEAR IN REVIEW

## UNDERGRADUATE ENROLLMENT

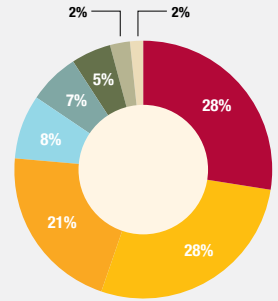


**Undergraduate Enrollment by Major**  
Academic Year 2021-22

- 35% Computer Science and Engineering
- 23% Mechanical Engineering
- 10% Bioengineering
- 9% Civil Engineering
- 7% Electrical and Computer Engineering
- 5% Undeclared
- 4% Electrical Engineering
- 4% General Engineering
- 3% Web Design and Engineering

**Undergraduate Enrollment by Minor**  
Academic Year 2021-22

- 28% Aerospace Engineering
- 28% Tech Innov, Design Thinking
- 21% Computer Science and Engineering
- 8% Construction Management
- 7% Electrical Engineering
- 5% Mechanical Engineering
- 2% General Engineering
- 2% Bioengineering

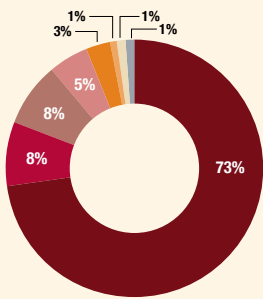


**997** undergraduate students

**26%** women

**34%** underrepresented minorities

## GRADUATE ENROLLMENT

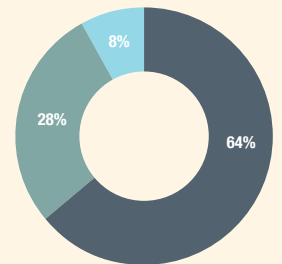


**Graduate Enrollment by Program**  
Academic Year 2021-22

- 73% Computer Science and Engineering
- 8% Electrical and Computer Engineering
- 8% Engineering Management and Leadership
- 5% Bioengineering
- 3% Civil Engineering
- 1% Robotics and Automation
- 1% Power Systems and Sustainable Energy
- 1% Aerospace Engineering

**Ph.D. Enrollment by Department**  
Academic Year 2021-22

- 64% Computer Science and Engineering
- 28% Electrical and Computer Engineering
- 8% Mechanical Engineering



**531** master's

**60** doctoral

**1** engineer's degree

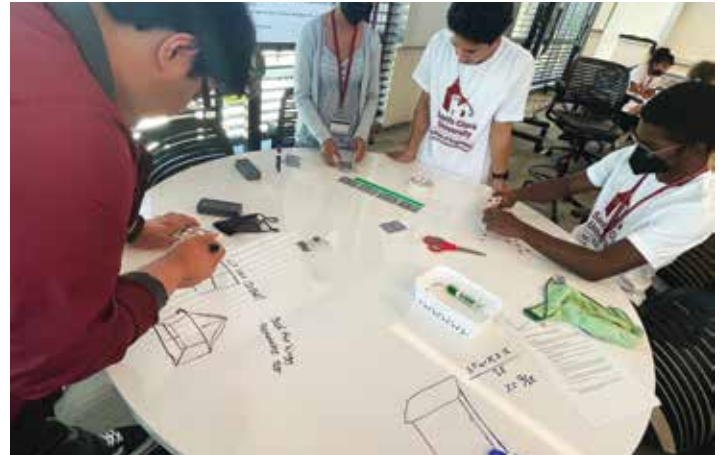
**64%** non-resident students

**33%** women

# OLDEST AND LARGEST DIVERSITY AND INCLUSION PUBLICATION NAMES SES ONE OF "2022 INSPIRING PROGRAMS IN STEM"

The School of Engineering's Summer Engineering Seminar (SES) is an award-winning summer program for the curious, innovative, and creative youth who want to explore the engineering field. Santa Clara University and SES are recipients of the *INSIGHT Into Diversity Magazine's 2022 Inspiring Programs in STEM Award* [p. 68]. This award is given to only 79 programs nationwide for "efforts to inspire and encourage a new generation of young people to consider careers in STEM through mentoring, teaching, research, and successful programs and initiatives." The *INSIGHT Into Diversity* magazine is the oldest and largest diversity and inclusion publication in higher education. The School of Engineering and SES are deeply honored to receive such an award as we continue to do better and progress on our efforts of inclusion. "We need engineers to help solve many of the critical challenges facing our country today. This will require a diversity of ideas and approaches. We can do this by transforming engineering into an inclusive culture that is accessible to all who are interested," said Elaine Scott, Dean of the School of Engineering. Behind the support of Dean Scott, we will continue our efforts to provide a more inclusive and diverse community and inspire leaders who will help build a more just, humane, and sustainable world. "There is still a lot that we need to improve, and SES is a program leading towards that final stepping stone," said Ricardo Padilla, Jr., Programs Director for Diversity, Equity and Inclusion in STEM.


The Summer Engineering Seminar summer program was created at Santa Clara University in 1989 to help motivate high school students to pursue the path of a science or engineering degree. As part of the School of Engineering's overall strategic vision, the program has grown to aim at




providing first-generation college students, women, and other underrepresented groups access to engineering programs and courses that may otherwise have been unavailable. In the five-day program, students are fully immersed in the college experience by living in campus dorms, assigned to student mentors, and attend faculty-facilitated workshops that span various engineering disciplines. As we continue to refine the Summer Engineering Seminar, we remain dedicated to our efforts to provide a more diverse and inclusive community at the School of Engineering.

*Please visit the [SES](#) webpage for more information about the Summer Engineering Seminar, including the application process and eligibility requirements.*

For the **first time ever**, the first-year class of 2026 has over

**36%**   
women engineers

The **School of Engineering** currently has

**37%**   
women engineering faculty

# A CLOSER LOOK AT CREATIVE AI

In today's world, there is a lot of controversy surrounding using Artificial Intelligence (AI) as a medium to create artistic pieces of work, from the argument that AI will replace artists to the questions of legality surrounding who owns the rights to the pieces created. I sat with Assistant Professor Maya Ackerman (Computer Science and Engineering) to learn more about creative AI and its implications for the future of the creative industry. Her article "[The real opportunity in creative AI: Deepening human creativity](#)" gives us her thoughts and optimism for the future. Check out her article; it's a great read! (Scan the QR code below to read the full article.)

**JD** Please briefly explain creative AI to those who may not be familiar with the technology.

**MA** Computational Creativity looks at a computer as more than a tool, but rather as a creative entity or a creative partner for humans. The related field of Creative AI focuses on the technical aspects of eliciting creative behavior in machines. Since the 1950s, researchers have been exploring how machines can do creative things. Giving machines abilities to create art such as music, dance, and paintings, to name a few. David Cope, an early innovator, experimented with musical intelligence and developed the software Experiments in Musical Intelligence (EMI).

**JD** You mentioned in your article that you are a creative person and how it inspired your passion for creative AI. What creative process do you believe could benefit the most from the advancement of Creative AI?

**MA** AI has already penetrated visual art. Music is another clear candidate because it will transform how people write songs. Because it's commercially lucrative, there's a lot of effort to help marketers with the aid of companies such as CopyAI. Those are the main ones where there is more research to leverage. Some of the more niche applications, for example, pottery—which I think is really cool—just have not had as much effort go into figuring out how to involve machines. So the most dominant or common ones will probably benefit earlier.

**JD** In your opinion, do you believe that the benefits of creative AI outweigh any potentially undesirable consequences?

**MA** There is profound potential to elevate human creativity to new heights. We're starting to see that today with DALL-E and Midjourney, as well as efforts in the music space. The acoustic piano used to be controversial, the idea of buying brushes and paints was once new, and now we take these for granted - they are basic building blocks for creativity. It will soon enough be the same with creative AI. So I am an optimist. Unfortunately, like any other innovation, it can also cause some damage if introduced to the world carelessly. I'd love to see companies and researchers, especially those making creative AI technology much more accessible, take these issues more seriously.



**Maya Ackerman**  
Assistant Professor  
Computer Science  
and Engineering



**JD** Once Creative AI becomes more mainstream, how easy will it be accessible to the masses?

**MA** It's remarkably accessible already. A great example is Craiyon (formerly known as DALL-E mini), a free visual art software, and the system LyricsStudio, which is very affordable. I think that's the way to go. I believe that these systems have to be affordable. I don't want this to be another thing that differentiates the haves from the have-nots. Ultimately, I don't know if there's going to be a free version of everything or if the free stuff will be the best, but I hope that the best systems will remain affordable.

**JD** What projects or creative pieces do you plan on working on using the technology?

**MA** I have many projects we're working on in my lab; one is bringing philosophy into the space with my students Aanchal Rai '22 and Abhilash Srivathsa '22. My Ph.D. student Juliana Shihadeh is working on a project related to creating visuals for live orchestras so people with auditory impairments can better enjoy the live experience. I'm also working with a couple of other students, Raya Young and Sukhjot Bassi, on an interior design project that helps people do interior design with an automated system, so there are plenty of projects!

## CREATIVE AI IN ACTION

Most may not know that Nicole Morales (Director of Marketing and Communications) has a creative lab in her dining room. She has worked with various art mediums, from making pieces for the "Grand Bash" gifts to creating decorations for weddings and events, to using recycled cassettes to make upcycled art. Her latest project involves working with creative AI to inspire an abstract musical sculpture. Nicole aims to show how AI can be used to help us throughout the creative process.



AI-generated image with the text prompt: a musical rainbow sculpture.



# IEEE FELLOW: A PRESTIGIOUS ELEVATION FOR THE FEW

The School of Engineering is profoundly grateful to have incredibly talented faculty who have achieved remarkable accomplishments and accolades, including those who have reached the rankings of Fellow at the world's largest and most exclusive technical professional organization, the Institute of Electrical and Electronics Engineers (IEEE). The IEEE is an international organization “dedicated to advancing technology for the benefit of humanity.” To be distinguished as an IEEE Fellow, one must have extraordinary accomplishments in any of the IEEE fields of interest that are deemed fitting of this prestigious grade elevation. The requirements to become a Fellow include a nomination by an existing Fellow and contributing significantly to the “advancement or application of engineering, science, and technology, bringing the realization of significant value to society.” Still, only one-tenth of those are selected from the total voting institute membership. This past year, Andy Wolfe (Electrical and Computer Engineering) was among those to receive this honor, making him the fifth SCU School of Engineering faculty to be recognized.

## FACULTY SPOTLIGHTS



### Andy Wolfe

#### Lecturer, Electrical and Computer Engineering

- » Andy Wolfe is an IEEE Fellow and an IEEE Computer Society Distinguished Contributor. He previously served on the faculty at Princeton University and taught classes at Stanford. In addition to his academic roles, Wolfe served as Senior VP and CTO at S3/SonicBlue, where he led several chip design teams and helped launch more than 30 digital audio and video products. Wolfe has more than 50 peer-reviewed publications and is the named inventor on over 50 U.S. patents.

Wolfe was elevated to IEEE Fellow in 2022 for his “contributions in hardware code compression of embedded software, power consumption analysis, and optimization. The process of hardware code compression of embedded software involves reducing software memory to make it cheaper and more efficient. His work on code compression was found in technology from the ‘90s through today, such as in laptops, phones, laser printers, and ARM.



### Cary Yang

#### Professor, Electrical and Computer Engineering

- » Cary Yang is the Director of TENT Laboratory, an SCU facility inside NASA AMES. He is an IEEE Fellow and has served as Editor of the IEEE Transactions on Electron Devices, President of the IEEE Electron Devices Society, and an elected member of the IEEE Board of Directors. Yang founded the Silicon Valley-based company Surface Analytic Research, which focuses on sponsored research projects related to various applications of surfaces and nanostructures.

Yang was elected IEEE Fellow in 1999 for his “contributions to microelectronic education and the understanding of interfacial properties of silicon-based devices.” Micro/nanoelectronics encompasses design, device/process technology development, and manufacturing of integrated circuits in the semiconductor industry. Yang has performed extensive research in the field and has developed over 20 undergraduate and graduate micro/nanoelectronics courses since he joined the faculty in 1983.



### Sally Wood

#### Professor, Electrical and Computer Engineering

- » Sally Wood is the Associate Dean of Graduate Studies, an IEEE Fellow, and an IEEE Distinguished Lecturer. She is the recipient of the Brutocao Family Foundation Award for Curriculum Innovation, Santa Clara University, 2014.

Wood was elevated to an IEEE Fellow in 2006 for her “contributions to engineering education at university and pre-college levels.” With National Science Foundation funding, she developed college course modules with interactive visualizations to help students become successful engineers.



### Katie Wilson

#### Professor, Electrical and Computer Engineering

- » Katie Wilson is an IEEE Fellow and has served as the Editor-in-Chief of IEEE Communications Letters from 2009-2011, and has been an associate editor for several IEEE journals. She was the IEEE Communications Society Director of Journals for 2012-2013 and the Vice-President for Publications for the IEEE Communications Society for 2014-2015.

Wilson was elevated to an IEEE Fellow in 2014 for her contributions to orthogonal frequency multiplexing (OFDM). OFDM transmits information and encodes data on multiple carrier frequencies. Her early work and contributions to OFDM have significantly moved communications technology forward. As a result, her papers have been regularly cited and referenced in the field of communications.



### Nam Ling

#### Professor, Computer Science and Engineering

- » Nam Ling is chair of the Department of Computer Science and Engineering. He is an IEEE Fellow, was named IEEE Distinguished Lecturer twice, and was also an APSIPA Distinguished Lecturer. In addition, Ling has made significant contributions to the IEEE, where he held many positions and served as a keynote speaker at several conferences.

Ling was elevated to IEEE Fellow in 2008 for his contributions to video coding algorithms and architectures. He and his team's research produced one of the world's three fastest motion estimation methods in video coding at the time, which sped up the video compression process without degrading picture quality. The method was adopted into the mainstream video coding standard, also contributed significantly to adaptive rate-control and architecture for video coding.



# DE NOVO SPOTLIGHTS

Over the summer, these Engineering undergraduates conducted research as part of the De Novo Fellowship Program. This prestigious fellowship is awarded to outstanding students from underrepresented groups in the College of Arts and Sciences and the School of Engineering to work on well-crafted research projects with faculty mentors who are committed to increasing diversity in STEM.



## Sihang Li

Graduation Year: 2024

Major: Computer Science and Engineering  
Project: Mitigating Biases in Word Embedding based Resume Screening System

Advisor: Haibing Lu

"During the summer I worked with Dr. Haibing Lu to conduct research on the justice issue of the resume screening system. We collected data, identified the demographically rooted biases in the resume screening system, and proposed methods to mitigate the biases to yield a more fair result."



## Courtney Rowe

Graduation Year: 2023

Major: Mechanical Engineering  
Project: Effects of Crystal Symmetry on Thermal Conduction: A Two-Dimensional Simulation

Advisor: Robert Marks

"This summer I learned that research, by its nature, does not always go according to plan. When this happens, you have to think creatively and critically in order to explore new directions. I am thankful for my advisor, Dr. Marks, for leading me through this challenging but fulfilling process."



## Karl Schumacher

Graduation Year: 2024

Major: Bioengineering  
Project: High-Throughput Fluorescence Anisotropy Methods Development for Peptide-Nanoparticle Binding Affinity Assays

Advisor: Korin Wheeler

"Over the course of my summer in Wheeler Lab I came to appreciate how much of a team effort lab work really is and how valuable it is to have lab mates who you can count on to do good science everyday. I also learned the importance of consistently chipping away at the problems at hand, making slow but stable progress toward the research goal and to work back up from setbacks."



## Nick Cmager

Graduation Year: 2023

Major: Bioengineering  
Project: Integration of capillaric strain sensors towards digital recognition of human movements

Advisor: Emre Araci

"During the summer I was able to do a lot of hands-on work in Dr. Araci's lab. The theoretical work on digital image correlation (optical method of strain measurement) from the previous year was now applied to human testing and performing skin strain measurements. I got to learn a lot of new skills and really enjoyed the work in the team. We just recently submitted a paper on the work we've done to the Sensors & Diagnostics journal, published by the Royal Society of Chemistry."

## 2022 FACULTY RESEARCH AWARDS



### March 31

PI: Behnam Dezfouli (Computer Science and Engineering)

Funder: National Science Foundation

Amount: \$192,598

Project: "ERI: Pushing the Limits of WiFi Technology for Non-Mission-Critical and Mission-Critical Applications"

### April 6

PI: Yi Fang (Computer Science and Engineering)

Funder: DCOMO Innovations, Inc.

Amount: \$30,000

Project: "Neural Learning to Rank for Sequential Recommendation Systems"

### April 16

PI: Panthea Sepehrband (Mechanical Engineering)

Funder: National Science Foundation

Amount: \$55,000

Project: "GOALI: Understanding the Mechanisms of Ultrasonic Bonding at Atomic Scale"

### April 19

PI: Maryam Khanbaghi (Electrical and Computer Engineering)

Co-PI: Prashanth Asuri (Bioengineering), Unyoung (Ashley) Kim (Bioengineering), Aria Amirbahman (Civil, Environmental and Sustainable Engineering)

Funder: National Science Foundation

Amount Awarded: \$331,771

Project: "MRI: Acquisition of Multiscale Pore Size Analyzers for Research and Education"

### April 29

PI: Sean Choi (Computer Science and Engineering)

Funder: Hewlett Packard Labs

Amount: \$75,000

Project: "Distributed DPU Resource Orchestration"

### July 6

PI: On Shun Pak (Mechanical Engineering)

Funder: School of Engineering's Faculty Research Excellence Grant Program

Amount: \$78,676

Project: "Swimming Under the Microscope: From Microbes to Artificial Microswimmers"

### July 6

PI: Panthea Sepehrband (Mechanical Engineering)

Funder: School of Engineering's Faculty Research Excellence Grant Program

Amount: \$119,987

Project: "Atomic Scale Mechanism of Void Formation in TSV"

### August 31

PI: Maria Kyrarini (Electrical and Computer Engineering)

Funder: National Science Foundation

Amount: \$221,617

Project: "Collaborative Research: DARE: A Personalized Assistive Robotic System that assesses Cognitive Fatigue in Persons with Paralysis"

### October 4

PI: Hohyun Lee (Mechanical Engineering)

Co-PI: Yi Fang (Computer Science and Engineering), Yuhong Liu (Computer Science and Engineering)

Funder: National Institute of Standards & Technology/ Technology Administration DOC

Amount: \$150,000

Project: "Fair and Resilient Control of Energy Systems in Grid-Interactive Buildings Under Skewed and Faulty Communication"

### October 4

PI: Kurt Schab (Electrical and Computer Engineering)

Funder: North Carolina State University

Amount: \$575,700

Project: "Metrics and Scaling Principles for Energy Synchronous Direct Antenna Modulation Transmitters"

### March 30

PI: Yuhong Liu (Computer Science and Engineering)

Co-PIs: Yi Fang (Computer Science and Engineering) and Subbu Vincent (Markkula Center)

Funder: The Miami Foundation

Amount: \$137,500

Project: "Building a Live Chinese Language News Discussion Repository to Track and Combat Active Disinformation Campaigns"



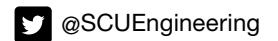
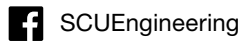


Santa Clara University  
500 El Camino Real  
Santa Clara, CA 95053

Nonprofit Org  
US Postal  
PAID  
Permit No. 22  
Santa Clara, CA

The Jesuit University in Silicon Valley

**GIVE TO SCU ENGINEERING**  
[scu.edu/engineering/give](https://scu.edu/engineering/give)



# BEST WISHES, TIM HEALY

After 56 years of teaching at Santa Clara University, beloved Electrical and Computer Engineering professor, Tim Healy, has retired. From the many students he taught, to the creation of multiple electrical engineering labs, including the Latimer Energy Lab, through all the campus changes he experienced, Tim reflects on six decades of teaching in the article “[Last Lecture For Engineering Professor Tim Healy](#)” by Tracy Seipel. *(Scan the QR code below to read the full article.)*

From everyone at the School of Engineering, we wish you all the best, Tim!



Tim Healy, 1968



Godfrey Mungal and Tim Healy celebrating Tim's 50th Year of Teaching at SCU, 2016



Tim Healy teaching many generations of electrical engineers, 2016