

# TECHNOLOGY WORKFORCE

## STRATEGIC RESEARCH INITIATIVE

### ROBOTICS ENGINEERING INTERNATIONAL WORKSHOP

**Tomorrow's workforce needs cutting-edge knowledge and skills to respond to complex programs and create our future.**

Projects in this section are highly transformative, equipping students and communities with knowledge and skills to innovate in science and technology, ensuring Cal Poly's leadership and impact for decades to come.

#### Cal Poly's Strategic Research Initiatives (SRI) program

All research projects are funded through Cal Poly's Strategic Research Initiatives (SRI) program, a partnership among Academic Affairs; the division of Research, Economic Development and Graduate Education; the President's Office; and University Advancement. The SRI program identifies proposals from Cal Poly faculty and staff that address problems facing the Central Coast, California and beyond that also enhance student success, positive social and economic impacts and community well-being. For more information about the SRI program, visit <https://research.calpoly.edu/strategic-research-initiatives>.

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**CAL POLY'S CHARGE  
IS TO EDUCATE THE  
WORKFORCE OF  
TOMORROW, AND  
OUR METHOD IS TO  
HAVE THEM LEARN BY  
DOING TODAY.**

— President Armstrong

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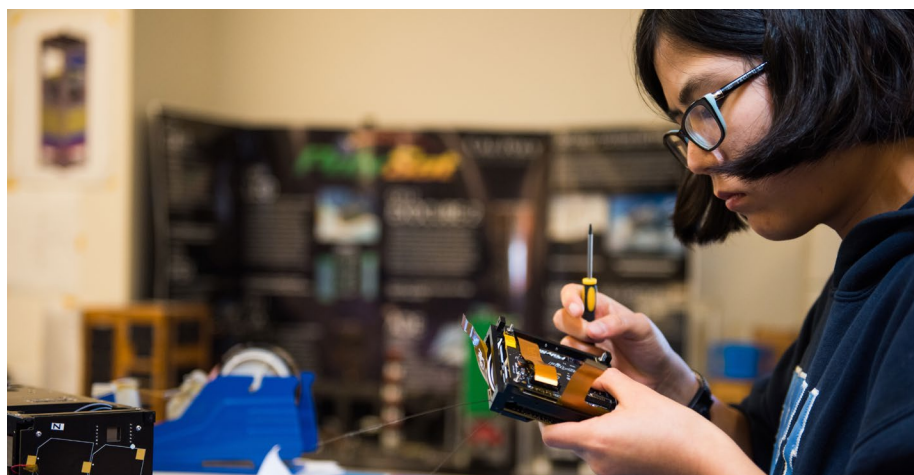
**CAL POLY**

Research, Economic Development  
& Graduate Education

## Research Projects at a Glance

### Smart Campus

This project creates a virtual representation of Cal Poly's campus to understand the movement of people on campus. This project took on new importance in light of COVID-19. The Smart Campus project can help us understand physical distancing practices, as well as patterns of movement, to help us better ensure public health.



STUDENT DOING AEROSPACE RESEARCH

### Revolutionizing the Tech Workforce

This project is training the next generation of ethical technologists to address the proliferation of harmful, though frequently unintended, consequences resulting from new technologies. This project is contributing to and intervening in national scholarly and practical discussions about the new skills necessary to be successful in the technology workforce.

### Transforming Access to Cybersecurity in California (TrACC)

TrACC addresses the fundamental problems of access to cybersecurity training and to services by developing holistic training and education, with an emphasis on serving communities and organizations with less access to cybersecurity services.

### Creating the Aerospace Center for Excellence

Building off of the success of the university's CubeSat Lab, the team is working to expand research capabilities to open the Cal Poly Aerospace Center of Excellence to provide a structure to practically train students on aerospace systems, build aerospace-related educational skills and goals, and provide a space to work for students from any major who are interested in the field.

## MEET THE TEAMS

**The Smart Campus Team:** College of Architecture and Environmental Design – Joseph Cleary, Amir Hajrasouliha, Jeong Woo; CSU Bakersfield – Amin Malek Mohammadi.

**The Revolutionizing the Tech Workforce Team:** College of Liberal Arts - Deb Donig, Matthew Harsh.

**The TrACC Team:** College of Engineering - Bruce DeBruhl, Dongfeng Fang; College of Liberal Arts – Martin Battle, Matthew Harsh, Anika Leithner, Kylie Parotta.

**The Aerospace Research Team:** College of Engineering – John Bellardo, Pauline Faure, Ryan Nugent.

Projects in this SRI theme are connected to the departments of Aerospace Engineering, City and Regional Planning, Computer Engineering, Computer Science and Software Engineering, Construction Management, English, Interdisciplinary Studies in the Liberal Arts, Political Science and Social Sciences.



AEROSPACE ENGINEERING