

# Capability Statement

Institution: **Cal Poly Pomona**

DUNS No: **028929438**

Cage Code: **2F321**

NACIS ID(s): **611710**

SIC: **N/A**

PSC: **AF11**

Federal EIN No: **95.2417645**

Certificates, Registrations, Accreditations: **WSCUC; ABET; AACSB; NAAB; ACS**

POC Information: **Dr. Sadiq Shah, Associate Vice President,  
Office of Research, Innovation & Economic Development  
3801 W. Temple Ave., Pomona, CA 91768  
Tel: 909-869-3898 email: [sayedshah@cpp.edu](mailto:sayedshah@cpp.edu);**

## OVERVIEW

The California State Polytechnic University at Pomona (Cal Poly Pomona or CPP) is one of the 23 campuses in the California State University (CSU) System. CPP is a predominantly four-year University and is a federally designated as a Hispanic Serving Institution (HSI) by the U.S. Department of Education. Cal Poly Pomona provides access to higher education for a large number of students from low-income and underrepresented minorities in a multi-cultural urban metropolis. The university service area includes some of the lowest educational achievement, low-income and highest unemployment population in Southern California. The university serves to support the regional economic growth by preparing the skilled workforce with college degrees to meet the needs of a diverse regional economy. The University has eight colleges - Agriculture, Business, Science, Engineering, Liberal Arts and Social Science, Environmental Design, Hospitality Management, Education and Integrated Studies and the Extended University. The student enrollment as of fall 2016 was about 25,000 with about 23,000 undergraduate students. At Cal Poly Pomona, in addition to research focus by individual faculty, multidisciplinary faculty collaborative groups are engaged in unique niche research areas.

## RESEARCH CAPABILITIES (partial list)

**Agriculture:** ARI, biodiversity, irrigation and landscapes, food science

**Biological Sciences:** muscle adaptation, immune response to prosthetic biometals, genomics, plant genetics, physiology, ecomorphology, cannabinoids, molecular regulation, stem cell development into fat and bone evolution, bacterial pathogenesis and virulence, and virus infection of archaeal bacteria, dopamine's effects

**Chemistry and Biochemistry:** X-Ray crystallography, plant survival, miniaturized analysis systems, charge transfer across nanometer interfaces, biochemistry of microorganisms from spacecraft assembly facilities, alternative fuels

**Engineering:** Unmanned aerial vehicles, liquid rocket lab, flight control and simulation, corrosion, high temperature materials, advanced coatings, biomaterials, adhesives, polymers, GIS, transportation engineering, data analytics, medical imaging, vibration analysis, earthquake damage prevention, composites, robotics, mechatronics, signal processing, water quality, solar energy, smart grid, microwave and radar engineering, haptics, human factors.

**Mathematics:** Mathematical physics, dynamical systems, computational biology, topology, reflection groups, number and knot theory, repeated measures, survival analysis

**Physics and Astronomy:** Astrophysics, massive star clusters, optics and biophysics, superresolution microscopy, fiberoptic biosensors, differential plasma and biofilms, high temperature superconductors, soft matter

**Other Areas:** Undergraduate Research, Cybersecurity, Urban & Regional Planning, Geography, Student Entrepreneurship, Hospitality Management, Architecture Program

## FACILITIES

Wind tunnels, Scanning Electron Microscope, Corrosion testing, High Performance Computing, HPC Clusters, X-Ray Crystallography, 400 MHz NMR, FTIR Spectrometers, Raman Spectrometer, GC/LC Mass Spectrometers, Atomic Absorption Spectrometer, Atomic Force Microscopes, Fluorescence Microscope, Fluorescence Activated Cell Sorter, X-Ray Fluorescence Spectrometer, Flight Control Simulation Lab, Several Unmanned Aerial Vehicles – With Sensors, stereo and infrared cameras etc., SR-100 Autonomous Flight Helicopter, Animal Research Facility, Kellogg Arabian Horse Center, Apparel Technology and Research Center, Center for Antimicrobial Research and Food Safety, Center for Turf, Irrigation and Landscape Technology.

## PAST PERFORMANCE

The university has successfully competed for and completed grants from the DAE, DOE, NSF, NIH, NASA, DOE and other federal agencies, state agencies and industry. Examples include the development of protective coatings for high temperature corrosive environments and for sublimation suppression.