



The Jesuit university in Silicon Valley

Senior Engineering Awards and Honors Convocation

Santa Clara University



JUNE | 12 | 09

School of Engineering

Honoring scholarly
performance and
personal integrity
of a higher order.

Honors Convocation

The School of Engineering is the proud host of three national honor societies and a number of prestigious programs fostering academic excellence. We are proud of our engineering students receiving special awards for outstanding achievement in their academic work or for their service to the community.

The graduating seniors who have been chosen for an award or elected to one or more of these societies have demonstrated scholarly performance and personal integrity of a higher order and they have achieved due to their talent and motivation. In classrooms and laboratories they have established themselves in leadership roles. Their accomplishments inspire their peers, the faculty, and the entire University community.

Today we congratulate these student scholars for what they have achieved. We remind them that they have a responsibility to use their talents and energies to become leaders in their chosen fields.

PROGRAM

First Annual
Senior Engineering Awards and Honors
Convocation

June 12, 2009
1 p.m.

Presiders for Ceremonies

Godfrey Mungal
Dean
School of Engineering

Ruth Davis
Associate Dean
Undergraduate Studies
School of Engineering

Honored Guest
Alfonso D. Callejas
BSCE '48

Pi Tau Sigma

Pi Tau Sigma, the national mechanical engineering honor society, was founded in 1915 at the University of Illinois. The Santa Clara University Alpha Epsilon chapter was granted its charter in 1991. The society's objectives are to foster high ideals in the engineering profession, stimulate and support departmental activities, promote professional welfare, and develop leadership and citizenship. Members are selected from the top 25 percent of the junior class and top 33 percent of the senior class in the Department of Mechanical Engineering.

Advisor: Wendelin Wright
Assistant Professor of Mechanical Engineering

Nicholas Bass
Katherine Byrne
Robert Flores
Matthew Illowsky
Katie Kubo
Thomas Leising
Robert Lorenzen
Megumi Mori
Kevin Pagano
Tyler Petersen
Patrick Riley
Ross Ruecker
Jeffrey Seago
Timothy Sennott
Eric Shono
Daniel Skavdal
Lauren-Ashly Tojo
Reyn Wakabayashi
Anthony Young

Tau Beta Pi

Tau Beta Pi, a national engineering honor society, was founded at Lehigh University in 1885. The Santa Clara chapter was established in 1956. The purpose of the society is to offer appropriate recognition of superior scholarship and exemplary character in engineering students. Engineering seniors in the upper 20 percent of their class are eligible. These students must demonstrate exemplary character, personal integrity, breadth of interest, adaptability, and unselfish activity.

Advisor: Drazen Fabris
Associate Professor of Mechanical Engineering

Katherine Byrne	Megumi Mori
Stacy Cavanagh	Brahmani Nandamuri
Benjamin Cherry	Tyler Petersen
Ryan Chun	Patrick Riley
Elizabeth Doran	Eric Rowe
John Fisher	Ross Ruecker
Sean Irwin	Daniel Ruffoni
Brian Jenkins	Sean Schiff
Thomas Kennedy	Jeffrey Seago
Colleen Kilroy	Timothy Sennott
Jacob LaPinta	Daniel Skavdal
Betsy Leaverton	Nicolas Treat
Thomas Leising	Reyn Wakabayashi
Jessica Long	Anthony Young
Robert Lorenzen	Trenton Zane
Zefram Marks	

Upsilon Pi Epsilon

Upsilon Pi Epsilon, the international honor society for the computing and information disciplines, was founded at Texas A & M University in 1967. The Santa Clara Lambda chapter was established in 1990. Its purpose is to promote high scholarship and original investigation in the computing sciences. Students must be majors in a computing discipline. Undergraduates must possess a 3.25 GPA overall and in the major, have completed at least 64 units of credit, and rank in the upper third of their class.

Advisor: Darren Atkinson
Associate Professor of Computer Engineering

Benjamin Cherry
Emin Ismayilzada
Brian Jenkins
Jacob LaPinta
James Lewis
Daniel Merwin
Eric Rowe
Sean Schiff
Nicolas Treat

University Honors Program

The University Honors Program provides Santa Clara's most able students with intellectual opportunities through small, seminar-style classes. The course of study combines broad-based learning with depth of specialization in a major field. Honors Program classes are designed to fit within the curricula of the humanities, natural and social sciences, business, and engineering. Possible majors include every undergraduate field in the University.

Advisor: William Greenwalt
Professor of Classics

Katie Kubo
Jacob LaPinta
Jessica Long
Timothy Sennott

Senior Design Presentation Awards

CIVIL ENGINEERING SESSION 1

2009 ASCE/AISC Student Steel Bridge Competition

Anthony Galvan
Brian Reeves

CIVIL ENGINEERING SESSION 2

*2009 Solar Decathlon: Structural Design and
Construction Management*

Sean Irwin
Daniel Ruffoni
Andrew Smith

CIVIL ENGINEERING SESSION 3

South Bay Tidal Micro-Hydropower Plant

Daniel Bates

COMPUTER ENGINEERING SESSION 4

H.264 3D Video Encoding

Jacob LaPinta
Johnathan Le
Jaipal Nijjar
Eamonn Pascal

ELECTRICAL ENGINEERING SESSION 5

Contact Resistance Extraction of Carbon Nanotubes

Ke (Cole) Li
Raymond Wu

MECHANICAL ENGINEERING SESSION 6

Autonomous Solar Cleaner – WinRobo2.0

Riley Coon
Robert Lorenzen
Tyler Petersen
Kyle Pistor

INTERDISCIPLINARY SESSION 7

Thermal Systems for the 2009 Solar Decathlon House

Matthew Brubaker
Robert Flores
Zachary Maslin
Jeffrey Seago
Timothy Sennott
Daniel Skavdal

INTERDISCIPLINARY SESSION 8

***BEST OF CONFERENCE AWARD**

Nanosatellite Mechanical Design and Analysis

Emmanuel Aparicio
Katherine Byrne
Thomas Leising
Jason Takisaki
Reyn Wakabayashi
Anthony Young

INTERDISCIPLINARY SESSION 9

Nephelometer: An Aerosol Detection Device

Karen Chapski
Lauren-Ashly Tojo
Frances Zelaya

COMMUNITY-BASED PROJECTS AWARD

Awarded to the senior design group with the
best presentation of a community-based project.

Sunflower: A Solar-Powered Water Pumping System

Maurvi Badshah
Colleen Kilroy
Brahmani Nandamuri

*Many thanks to Pearson for sponsoring the
Best of Conference Award!



Department Awards

OUTSTANDING CIVIL ENGINEERING SENIOR AWARD

Awarded to a senior by the faculty of the Civil Engineering Department based on academic standing, contribution to the department and school, and excellence in the senior design project.

Betsy Leaverton
Daniel Ruffoni

EDMUND C. FLYNN AWARD

Established in 1981 by Mrs. Edmund C. Flynn in memory of her husband, these awards are given to the graduating civil engineering students presenting the best thesis and to the two junior civil engineering students with the highest scholastic averages.

Sean Irwin
Daniel Ruffoni
Andrew Smith
Kevin Mueller
Katherine Soult

REGAN MEMORIAL AWARD

Established in 1977 in memory of Patrick W. Regan of the class of 1947, this award is given to the outstanding juniors in civil engineering as determined by the faculty of the department.

Molly Dunphy
Jeffrey Flores
Katherine Soult

HAROLD M. TAPAY AWARD

Established in 1989, this award is based on academic performance, financial need, and contributions to the university. One civil engineering major is selected by the department chair annually.

Emmanuel Mendoza

COMPUTER ENGINEERING AWARD FOR TECHNICAL EXCELLENCE

Awarded to those seniors who, in the judgment of the department faculty, have completed a capstone design project that is distinguished by an exceptionally high degree of technical and scholarly achievement.

Jonathan Azoff
Cameron Boehmer
Benjamin Cherry
Jacob LaPinta
Johnathan Le
Jaipal Nijjar
Eamonn Pascal
Nicolas Treat

OUTSTANDING COMPUTER ENGINEERING SENIOR AWARD

Awarded to a senior or seniors by the faculty of the Computer Engineering Department based on academic standing, esprit de corps, and contribution to the department, school, and community.

Eric Rowe
Sean Schiff

ELECTRICAL ENGINEERING ACADEMIC ACHIEVEMENT AWARD

Awarded to the electrical engineering senior with the highest grade point average.

Brahmani Nandamuri

OUTSTANDING ELECTRICAL ENGINEERING SENIOR AWARD

Awarded to seniors by the faculty of the Electrical Engineering Department based on academic standing, contribution to the department and school, and excellence in the senior design project.

Zefram Marks

OUTSTANDING MECHANICAL ENGINEERING SENIOR AWARD

Awarded to a senior by the faculty of the Mechanical Engineering Department based on academic standing, contribution to the department and school, and excellence in the senior design project.

Timothy Sennott

School of Engineering Awards

AWARD FOR RESEARCH EXCELLENCE

Awarded to a senior undergraduate engineering student who has demonstrated excellence in research.

Ke (Cole) Li
Raymond Wu

RAYMOND M. GALANTINE AWARD

Established in 1996, this award recognizes an outstanding engineering student who has demonstrated a commitment to putting into practice the Catholic and Jesuit ideal of people in the service of others. The award honors the memory of Raymond M. Galantine '53, whose life was an example of this ideal.

Betsy Leaverton
Jessica Long
Julianne Padgett

SANTA CLARA UNIVERSITY ENGINEERING ETHICS PRIZE

Sponsored by the Markkula Center for Applied Ethics through the generosity of SCU alumni William Knopf and John Casey, this prize is awarded for the best ethical analysis in a senior design project.

Nephelometer: An Aerosol Detection Device

Karen Chapski
Lauren-Ashly Tojo
Frances Zelaya

SCHOOL OF ENGINEERING HUMANITIES AWARD

Conferred each year on an engineering student who has been nominated by members of the humanities faculty and selected by the School of Engineering for outstanding work in the humanities while maintaining a strong record in engineering.

Sean Irwin
Raymond Wu

Honored Guest

Alfonso D. Callejas BSCE '48

Born in Chinandega, Nicaragua

Educated in Jesuit schools in Nicaragua

Studied English at Bellarmine College Preparatory

Graduated from SCU with a degree in civil engineering

Field engineer, Santa Clara Valley Water Conservation District

Returned to Nicaragua – 1949

Married Esperanza - 1951

Chief engineer for Nicaragua's Water Resources Board

Named Nicaragua's Minister of Public Works – 1965

Elected Vice President of Nicaragua – 1967

President of Nicaragua National Port Authority

President of Nicaragua National Commission of Energy

Head of Nicaragua Federal Highway Association

Exiled to the United States – 1980

Returned home to Nicaragua – 1990

Magistrate of Supreme Electoral Court 1995 – 2000

In 2002, for his commitment to public service, service to his community, and excellence in engineering, Mr. Callejas was presented with the School of Engineering's highest honor, the Distinguished Engineering Alumnus Award.